UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2019

OR

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

FOR THE TRANSITION PERIOD FROM TO
COMMISSION FILE NUMBER 0-19687

SYNALLOY CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	57-0426694
(State of incorporation)	(I.R.S. Employer Identification No.)

4510 Cox Road, Suite 201, Richmond, Virginia, 23060
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (804) 822-3260

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

Title of each class	Trading Symbol	Name of each exchange on which registered:
Common Stock, $1.00 Par Value	SYNL	NASDAQ Global Market

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

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T 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 definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

Based on the closing price as of June 30, 2019, which was the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the common stock held by non-affiliates of the registrant was $77.0 million.

The number of shares outstanding of the registrant's common stock as of March 4, 2020 was 9,117,657.

Documents Incorporated By Reference

Portions of the Proxy Statement for the 2020 annual shareholders' meeting are incorporated by reference into Part III of this Form 10-K.

Synalloy Corporation
Form 10-K
For Period Ended December 31, 2019
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Forward-Looking Statements

This Annual Report on Form 10-K includes and incorporates by reference "forward-looking statements" within the meaning of the federal securities laws. All statements that are not historical facts are forward-looking statements. The words "estimate," "project," "intend," "expect," "believe," "should," "anticipate," "hope," "optimistic," "plan," "outlook," "should," "could," "may" and similar expressions identify forward-looking statements. The forward-looking statements are subject to certain risks and uncertainties, including without limitation those identified below, which could cause actual results to differ materially from historical results or those anticipated. Readers are cautioned not to place undue reliance on these forward-looking statements. The following factors could cause actual results to differ materially from historical results or those anticipated: adverse economic conditions; the impact of competitive products and pricing; product demand and acceptance risks; raw material and other increased costs; raw materials availability; employee relations; ability to maintain workforce by hiring trained employees; labor efficiencies; customer delays or difficulties in the production of products; new fracking regulations; a prolonged decrease in nickel and oil prices; unforeseen delays in completing the integrations of acquisitions; risks associated with mergers, acquisitions, dispositions and other expansion activities; financial stability of our customers; environmental issues; negative or unexpected results from tax law changes; unavailability of debt financing on acceptable terms and exposure to increased market interest rate risk; inability to comply with covenants and ratios required by our debt financing arrangements; ability to weather an economic downturn; loss of consumer or investor confidence and other risks detailed in Item 1A, Risk Factors, in this Annual Report on Form 10-K and from time-to-time in Synalloy Corporation's Securities and Exchange Commission filings. Synalloy Corporation assumes no obligation to update any forward-looking information included in this Annual Report on Form 10-K.

PART I

Item 1 Business

Synalloy Corporation, a Delaware corporation, was incorporated in 1958 as the successor to a chemical manufacturing business founded in 1945. Its charter is perpetual. The name was changed on July 31, 1967 from Blackman Uhler Industries, Inc. The Company's executive office is located at 4510 Cox Road, Suite 201, Richmond, Virginia 23060. Unless indicated otherwise, the terms "Synalloy", "Company," "we" "us," and "our" refer to Synalloy Corporation and its consolidated subsidiaries.

The Company's business is divided into two reportable operating segments, the Metals Segment and the Specialty Chemicals Segment. The Metals Segment operates as three reporting units, all International Organization for Standardization ("ISO") certified manufacturers, including Welded Pipe & Tube Operations, a unit that includes Bristol Metals, LLC ("BRISMET") and American Stainless Tubing, LLC ("ASTI"), which began operations effective January 1, 2019 pursuant to our acquisition of substantially all of the assets of American Stainless Tubing, Inc. ("American Stainless") (see Note 15 to the Consolidated Financial Statements), Palmer of Texas Tanks, Inc. ("Palmer"), and Specialty Pipe & Tube, Inc. ("Specialty"). Welded Pipe & Tube Operations manufactures stainless steel, galvanized, ornamental stainless steel tubing, and other alloy pipe and tube. Palmer manufactures liquid storage solutions and separation equipment. Specialty is a master distributor of seamless carbon pipe and tube. The Metals Segment's markets include the oil and gas, chemical, petrochemical, pulp and paper, mining, power generation (including nuclear), water and waste water treatment, liquid natural gas ("LNG"), brewery, food processing, petroleum, pharmaceutical, automotive & commercial transportation, appliance, architectural, and other heavy industries. The Specialty Chemicals Segment operates as one reporting unit which includes Manufacturers Chemicals, LLC ("MC"), a wholly-owned subsidiary of Manufacturers Soap and Chemical Company ("MS&C"), and CRI Tolling, LLC ("CRI Tolling"). The Specialty Chemicals Segment produces specialty chemicals for the chemical, paper, metals, mining, agricultural, fiber, paint, textile, automotive, petroleum, cosmetics, mattress, furniture, janitorial and other industries. MC manufactures lubricants, surfactants, defoamers, reaction intermediaries and sulfated fats and oils. CRI Tolling provides chemical tolling manufacturing resources to global and regional chemical companies and contracts with other chemical companies to manufacture certain, pre-defined products.

General

Metals Segment – This segment is comprised of four wholly-owned subsidiaries: Synalloy Metals, Inc., which owns 100 percent of the membership interests of BRISMET, located in Bristol, Tennessee and Munhall, Pennsylvania; ASTI, located in Troutman and Statesville, North Carolina; Palmer, located in Andrews, Texas; and Specialty, located in Mineral Ridge, Ohio and Houston, Texas. Two subsidiaries, BRISMET and ASTI, are aggregated as one reporting unit called Welded Pipe and Tube Operations, with Palmer and Specialty making up the segment's other two reporting units.

BRISMET manufactures welded pipe and tube, primarily from stainless steel, duplex, and nickel alloys. Pipe is produced in sizes from 3/8 inch to 120 inches in diameter and wall thickness up to one and one-half inches. Eighteen-inch and smaller diameter pipe is made on equipment that forms and welds the pipe in a continuous process. Pipe larger than 18 inches in diameter is formed on presses or rolls and welded on batch welding equipment. Pipe is normally produced in standard 20-foot lengths. However, BRISMET has unusual capabilities in the production of long length pipe without circumferential welds. This can reduce the installation cost for the customer. Lengths up to 60 feet can be produced in sizes up to 18 inches in diameter. In larger sizes, BRISMET has a unique ability among domestic producers to make 48-foot lengths in diameters up to 36 inches. Over the past four years, BRISMET has made substantial capital improvements, installing an energy efficient furnace to anneal pipe quicker while minimizing natural gas usage; system improvements in pickling to maintain the proper chemical composition of the pickling acid; and developing a heavy wall/quick turn welded pipe production shop by adding a 4,000 tonne press along with all necessary ancillary processes. BRISMET's Munhall facility manufactures stainless welded pipe as well as new product offerings in welded tubing in diameters from 5/8 inch to eight inches and gauges from 0.028 inch to 1/4 inch. Additionally, the Munhall facility produces galvanized carbon tubing in custom sizes. Munhall was designed for improved product flow and the latest technology including laser welding and in-line bright annealing.

ASTI is a leading manufacturer of high-end ornamental stainless steel tubing, supplying the automotive, commercial transportation, marine, food services, construction, furniture, healthcare, and other industries. Operating facilities are located in Troutman and Statesville, North Carolina. ASTI combines the use of superior metal quality with in-house capabilities in slitting and welding, along with patented and proprietary finishing capabilities and the highest levels of customer service and technical support to provide the customer with the highest quality ornamental product available in the market. Product range includes ½” OD to 2-1/2” OD up to 5” OD, in a variety of shapes, including squares, rectangles and ellipticals. Refer to Note 15 to the Consolidated Financial Statements for further details.

Palmer is a manufacturer of fiberglass and steel storage tanks for the oil and gas, waste water treatment and municipal water industries. Located in Andrews, Texas, Palmer is ideally located in the heart of a significant oil and gas production territory. Palmer produces made-to-order fiberglass tanks, utilizing a variety of custom mandrels and application specific materials. Its fiberglass tanks range from two feet to 30 feet in diameter at various heights. Most of these tanks are used for oil field waste water capture and are an integral part of the environmental regulatory compliance of the drilling process. Each fiberglass tank is manufactured to American Petroleum Institute Q1 standards to ensure product quality. Palmer's steel storage tank facility enables efficient, environmentally compliant production with designed-in expansion capability to support future growth. Finished steel tanks range in size predominantly from 50 to 1,500 barrels and are used to store extracted oil.

Specialty is a leading master distributor of hot finish, seamless, carbon steel pipe and tubing, with an emphasis on large outside diameters and exceptionally heavy wall thickness. Specialty's products are primarily used for mechanical and high-pressure applications in the oil and gas, capital goods manufacturing, heavy industrial, construction equipment, paper and chemical industries. Operating from facilities located in Mineral Ridge, Ohio and Houston, Texas, Specialty is well-positioned to serve the major industrial and energy regions and successfully reach other target markets across the United States. Specialty performs value-added processing on approximately 80 percent of products shipped, which would include cutting to length, heat treatment, testing, boring and end finishing and typically processes and ships orders in 24 hours or less. Based upon its short lead times, Specialty plays a critical role in the supply chain, supplying long lead-time items to markets that demand fast deliveries, custom lengths, and reliable execution of orders.

In order to maintain strong business relationships, the Metals Segment uses only a few raw material suppliers. Ten suppliers furnish approximately 87 percent of total dollar purchases of raw materials, with one supplier furnishing 34 percent of material purchases. However, the Company does not believe that the loss of this supplier would have a materially adverse effect on the Company as raw materials are readily available from a number of different sources, and the Company anticipates no difficulties in fulfilling its requirements.

Specialty Chemicals Segment – This segment consists of the Company's wholly-owned subsidiary MS&C. MS&C owns 100 percent of the membership interests of MC, which has a production facility in Cleveland, Tennessee. This segment also includes CRI Tolling which is located in Fountain Inn, South Carolina. MC and CRI Tolling are aggregated as one reporting unit and comprise the Specialty Chemicals Segment. Both facilities are fully licensed for chemical manufacture. MC manufactures lubricants, surfactants, defoamers, reaction intermediaries, and sulfated fats and oils. CRI Tolling provides chemical tolling manufacturing resources to global and regional companies and contracts with other chemical companies to manufacture certain pre-defined products.

MC produces over 1,100 specialty formulations and intermediates for use in a wide variety of applications and industries. MC's primary product lines focus on the areas of defoamers, surfactants, and lubricating agents. These three fundamental product lines find their way into a large number of manufacturing businesses. Over the years, the customer list has grown to include end users and chemical companies that supply paper, metal working, surface coatings, water treatment, paint, mining, oil and gas, and janitorial applications. MC's capabilities also include the sulfation of fats and oils. These products are used in a wide variety of applications and represent a renewable resource, animal and vegetable derivatives, as alternatives to more expensive and non-renewable petroleum derivatives.

MC's strategy has been to focus on industries and markets that have good prospects for sustainability in the U.S. in light of global trends. MC's marketing strategy relies on sales to end users through its own sales force, but it also sells chemical intermediates to other chemical companies and distributors. It also has close working relationships with a significant number of major chemical companies that outsource their production for regional manufacture and distribution to companies like MC. MC has been ISO registered since 1995.

The Specialty Chemicals Segment maintains six laboratories for applied research and quality control which are staffed by eleven employees.

Most raw materials used by the segment are generally available from numerous independent suppliers and approximately 52 percent of total purchases are from its top 10 suppliers. While some raw material needs are met by a sole supplier or only a few suppliers, the Company anticipates no difficulties in fulfilling its raw material requirements.

See Note 13 to the Consolidated Financial Statements, which are included in Item 8 of this Form 10-K, for financial information about the Company's segments.

Sales and Distribution

Metals Segment – The Metals Segment utilizes separate sales organizations for its different product groups. Welded Pipe & Tube Operations include stainless steel pipe and tube, sold worldwide under the BRISMET trade name and ornamental stainless tube, sold under the ASTI trade name in the U.S. and Canadian markets. Producing sales and providing service to the distributors and end-user customers are three outside sales employees, 14 independent manufacturers' representative, and 12 inside sales employees.

Palmer employs three sales professionals that manage the relationship with customers and partnerships to identify and secure new sales. Additionally, the Metals Segment President assists in account relationship management with large customers. Customer feedback and in-field experience generate product enhancements and new product development.

Approximately 80 percent of Specialty's pipe and tube sales are to North American pipe and tube distributors with the remainder comprised of sales to end use customers. In addition to Specialty's President, Specialty utilizes two manufacturers' representatives and seven inside sales employees, whom are located at both locations, to obtain sales orders and service its customers.

There were no customers representing more than 10 percent of the Metals Segment's revenues for 2019, 2018 or 2017.

Specialty Chemicals Segment – Specialty chemicals are sold directly to various industries nationwide by five full-time outside sales employees and eleven manufacturers' representatives. The Specialty Chemicals Segment has one customer that accounted for approximately 16 percent of the segment's revenues for 2019 and 2018, respectively, and 23 percent of the segment's revenues for 2017. In 2018, the concentration of sales to this customer declined as a result of this customer moving production of certain products previously produced and sold by the Specialty Chemicals Segment in-house.

Competition

Metals Segment – Welded Pipe & Tube Operations produce the largest sales volume group of products in the Metals Segment. For stainless steel and galvanized pipe, although information is not publicly available regarding the sales of most other producers of these products, management believes that the Company is one of the largest domestic producers of such pipe. These commodity products are highly competitive with twelve known domestic producers, including the Company, and imports from many different countries. ASTI is a leading manufacturer of high-end ornamental stainless steel tubing, supplying the automotive, commercial transportation, marine, food services, construction, furniture, healthcare and other industries. ASTI combines the use of superior metal quality with in-house capabilities in slitting and welding, along with patented and proprietary finishing capabilities and the highest levels of customer service and technical support to provide customers with the highest quality ornamental product available in the market. There are three known significant U.S. ornamental tubing manufacturers competing in the markets in which ASTI participates.

Due to the size of the tanks produced and shipped to its customers, the majority of Palmer's products is sold within a 300-mile radius from its plant in Andrews, Texas. There are currently 18 tank producers, with similar capabilities, servicing that same area.

Specialty is a leader in the specialized products segment of the pipe and tube market by offering an industry-leading in-stock inventory of a broad range of high quality products, including specialized products with limited availability. Specialty's dual branches have both common and regional-specific products and capabilities. There are four known significant pipe and tube distributors with similar capabilities to Specialty.

Specialty Chemicals Segment – The Company is the sole producer of certain specialty chemicals manufactured for other companies under processing agreements and also produces proprietary specialty chemicals. The Company's sales of specialty products are insignificant compared to the overall market for specialty chemicals. The market for most of the products is highly competitive and many competitors have substantially more resources than the Company.

Mergers, Acquisitions and Dispositions

The Company is committed to a long-term strategy of (a) reinvesting capital in our current business segments to foster their organic growth, (b) disposing of underperforming business units, and (c) completing acquisitions that expand our current business segments or establish new manufacturing platforms. Targeted acquisitions are priced to be economically feasible and focus on achieving positive long-term benefits. These acquisitions may be paid for in the form of cash, stock, debt or a combination thereof.

On July 1, 2018, BRISMET acquired Marcegaglia USA, Inc.'s ("MUSA") galvanized tube assets and operations ("MUSA-Galvanized") located in Munhall, PA. The purpose of the transaction was to enhance the Company's on-going business with additional capacity and technological advantages. The transaction was funded through an increase to the Company's credit facility (refer to Note 5 to the Consolidated Financial Statements). The purchase price for the transaction totaled $10.4 million. In connection with the MUSA-Galvanized acquisition, the Company is required to make quarterly earn-out payments for a period of four years following closing, based on actual sales levels of galvanized pipe and tube. The tangible assets purchased and liabilities assumed from MUSA include accounts receivable, inventory, equipment, and accounts payable.

On January 1, 2019, ASTI completed the American Stainless acquisition. The purpose of the transaction was to extend and enhance the Company's on-going business with additional capacity and new technological advantages in the production of stainless ornamental tubing. The purchase price was $21.9 million. American Stainless will also receive quarterly earn-out payments for a period of three years following closing. Synalloy funded the acquisition with a new five-year $20 million term note and a draw against its $100 million asset based line of credit, both with Synalloy's current lender (see Note 5 to the Consolidated Financial Statements). The tangible assets purchased and liabilities assumed from American Stainless include accounts receivable, inventory, equipment, and accounts payable.

Environmental Matters

Environmental expenditures that relate to an existing condition caused by past operations and do not contribute to future revenue generation are expensed. Liabilities are recorded when environmental assessments and/or cleanups are probable and the costs of these assessments and/or cleanups can be reasonably estimated. Changes to laws and environmental issues, including climate change, are made or proposed with some frequency and some of the proposals, if adopted, might directly or indirectly result in a material reduction in the operating results of one or more of our operating units. We are presently unable to quantify this risk due to such uncertainties.

Seasonal Nature of the Business

With the exception of Palmer and Specialty's Houston location, which primarily serves the oil and gas industry, the Company's businesses and products are generally not subject to any seasonal impact that results in significant variations in revenues from one quarter to another. Fourth quarter revenue and profit for Palmer and Specialty Houston can be as much as 25 percent below the other three quarters due to vacation schedules for customer field crews working at the drill sites.

Backlogs

The Specialty Chemicals Segment operates primarily on the basis of delivering products soon after orders are received. Accordingly, backlogs are not a factor in this business. The same applies to seamless, carbon steel pipe and tubing sales in the Metals Segment. However, backlogs are important in the Metals Segment's welded pipe & tube and tank manufacturing operations, where both businesses incur significant dollar value of committed orders in advance of production. Its backlog of open orders for welded stainless steel pipe were $35.4 million and $31.2 million and for tanks were $5.8 million and $20.7 million at the end of 2019 and 2018, respectively.

Employee Relations

At December 31, 2019, the Company had 606 employees. The Company considers relations with employees to be strong. The number of employees of the Company represented by unions, located at the Bristol, Tennessee, Mineral Ridge, Ohio, and Munhall, Pennsylvania facilities, is 247, or 41 percent of the Company's employees. They are represented by three locals affiliated with the United Steelworkers. Collective bargaining contracts for the Steelworkers expire in July 2024 (Bristol, TN), June 2020 (Mineral Ridge, OH), and January 2023 (Munhall, PA).

Financial Information about Geographic Areas

Information about revenues derived from domestic and foreign customers are set forth in Note 13 to the Consolidated Financial Statements.

Available information

The Company electronically files with the Securities and Exchange Commission ("SEC") its annual reports on Form 10-K, its quarterly reports on Form 10-Q, its periodic reports on Form 8-K, amendments to those reports filed or furnished pursuant to Section 13(a) of the Securities Exchange Act of 1934 (the "1934 Act"), and proxy materials pursuant to Section 14 of the 1934 Act. The SEC maintains a site on the Internet, www.sec.gov, which contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The Company also makes its filings available, free of charge, through its Web site, www.synalloy.com, as soon as reasonably practical after the electronic filing of such material with the SEC. The information on the Company's Web site is not incorporated into this Annual Report on Form 10-K or any other filing the Company makes with the SEC.

Item 1A Risk Factors

There are inherent risks and uncertainties associated with our business that could adversely affect our operating performance and financial condition. Set forth below are descriptions of those risks and uncertainties that we believe to be material, but the risks and uncertainties described are not the only risks and uncertainties that could affect our business. Reference should be made to "Forward-Looking Statements" above, and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 below.

The cyclical nature of the industries in which our customers operate causes demand for our products to be cyclical, creating uncertainty regarding future profitability. Various changes in general economic conditions affect the industries in which our customers operate. These changes include decreases in the rate of consumption or use of our customers' products due to economic downturns. Other factors causing fluctuation in our customers' positions are changes in market demand, capital spending, tariff induced price changes, lower overall pricing due to domestic and international overcapacity, lower priced imports, currency fluctuations, and increases in use or decreases in prices of substitute materials. As a result of these factors, our profitability has been and may in the future be subject to significant fluctuation.

Domestic competition could force lower product pricing and may have an adverse effect on our revenues and profitability. From time-to-time, intense competition and excess manufacturing capacity in the commodity stainless and galvanized steel industry have resulted in reduced selling prices, excluding raw material surcharges, for many of our stainless steel products sold by the Metals Segment. In order to maintain market share, we would have to lower our prices to match the competition. These factors have had and may continue to have an adverse impact on our revenues, operating results and financial condition and may continue to do so in the future.

Our business, financial condition and results of operations could be adversely affected by an increased level of imported products. Our business is susceptible to the import of products from other countries, particularly steel products. Import levels of various products are affected by, among other things, overall world-wide demand, lower cost of production in other countries, the trade practices of foreign governments, government subsidies to foreign producers, the strengthening of the U.S. dollar and governmentally imposed trade restrictions in the United States. Although imports from certain countries have been curtailed by anti-dumping duties, imported products from other countries could significantly reduce prices. Increased imports of certain products, whether illegal dumping or legal imports, could reduce demand for our products in the future and adversely affect our business, financial position, results of operations or cash flows.

The Specialty Chemicals Segment uses significant quantities of a variety of specialty and commodity chemicals in its manufacturing processes, which are subject to price and availability fluctuations that may have an adverse impact on our financial performance. The raw materials we use are generally available from numerous independent suppliers. However, some of our raw material needs are met by a sole supplier or only a few suppliers. If any supplier that we rely on for raw materials ceases or limits production, we may incur significant additional costs, including capital costs, in order to find alternate, reliable raw material suppliers. We may also experience significant production delays while locating new supply sources, which could result in our failure to timely deliver products to our customers. Purchase prices and availability of these critical raw materials are subject to volatility. Some of the raw materials used by the Specialty Chemicals Segment are derived from petrochemical-based feedstock, such as crude oil and natural gas, which have been subject to historical periods of rapid and significant movements in price. These fluctuations in price could be aggravated by factors beyond our control such as political instability, and supply and demand factors, including Organization of the Petroleum Exporting Countries ("OPEC") production quotas and increased global demand for petroleum-based products. At any given time, we may be unable to obtain an adequate supply of these critical raw materials on a timely basis, at prices and other terms acceptable, or at all. If suppliers increase the price of critical raw materials, we may not have alternative sources of supply. We attempt to pass changes in the prices of raw materials along to our customers. However, we cannot always do so, and any limitation on our ability to pass through any price increases could have an adverse effect on our financial performance. Any significant variations in the cost and availability of our specialty and commodity materials may negatively affect our business, financial condition or results of operations, specifically for the Specialty Chemicals Segment.

We rely on a small number of suppliers for our raw materials and any interruption in our supply chain could affect our operations. In order to foster strong business relationships, the Metals Segment uses only a few raw material suppliers. During the year ended December 31, 2019, 10 suppliers furnished approximately 87 percent of our total dollar purchases of raw materials, with one supplier providing 34 percent. However, these raw materials are available from a number of sources, and the Company anticipates no difficulties in fulfilling its raw materials requirements for the Metals Segment. Raw materials used by the Specialty Chemicals Segment are generally available from numerous independent suppliers and approximately 52 percent of total purchases were made from our top10 suppliers during the year ended December 31, 2019. Although some raw material needs are met by a single supplier or only a few suppliers, the Company anticipates no difficulties in fulfilling its raw material requirements for the Specialty Chemicals Segment. While the Company believes that raw materials for both segments are readily available from numerous sources, the loss of one or more key suppliers in either segment, or any other material change in our current supply channels, could have an adverse effect on the Company's ability to meet the demand for its products, which could impact our operations, revenues and financial results.

A substantial portion of our overall sales is dependent upon a limited number of customers, and the loss of one or more of such customers would have a material adverse effect on our business, results of operation and profitability. The products of the Specialty Chemicals Segment are sold to various industries nationwide. The Specialty Chemicals Segment has one customer that accounted for approximately 16 percent of revenues for 2019 and 2018, respectively, and 23 percent of revenues for 2017. The concentration of sales to this customer declined as a result of this customer moving production of certain products previously produced and sold by the Specialty Chemicals Segment in house. The loss of this customer would have a material adverse effect on the revenues of the Specialty Chemicals Segment of the Company.

There were no customers representing more than 10 percent of the Metals Segment's revenues in 2019, 2018, or 2017. Palmer and Specialty, which are a part of the Metals Segment, sell much of their products to the oil and gas industry. Any change in this industry, or any change in this industry's demand for their products, would have a material adverse effect on the profits of the Metals Segment and the Company.

Our operating results are sensitive to the availability and cost of energy and freight, which are important in the manufacture and transport of our products. Our operating costs increase when energy or freight costs rise. During periods of increasing energy and freight costs, we might not be able to fully recover our operating cost increases through price increases without reducing demand for our products. In addition, we are dependent on third party freight carriers to transport many of our products, all of which are dependent on fuel to transport our products. The prices for and availability of electricity, natural gas, oil, diesel fuel and other energy resources are subject to volatile market conditions. These market conditions often are affected by political and economic factors beyond our control. Disruptions in the supply of energy resources could temporarily impair the ability to manufacture products for customers and may result in the decline of freight carrier capacity in our geographic markets, or make freight carriers unavailable. Further, increases in energy or freight costs that cannot be passed on to customers, or changes in costs relative to energy and freight costs paid by competitors, has adversely affected, and may continue to adversely affect, our profitability.

*Oil prices are extremely volatile. A substantial or extended decline in the price of oil could adversely affect our financial condition and results of operations.*Prices for oil can fluctuate widely. Our Palmer and Specialty (Houston, Texas) units' revenues are highly dependent on our customers adding oil well drilling and pumping locations. Should oil prices decline such that drilling becomes unprofitable for our customers, such customers will likely cap many of their current wells and cease or curtail expansion. This will decrease the demand for our tanks and pipe and tube and adversely affect the results of our operations.

*Significant changes in nickel prices could have an impact on the sales of the Metals Segment.*The Metals Segment uses nickel in a number of its products. Nickel prices are currently at a relatively low level, which reduces our manufacturing costs for certain products. When nickel prices increase, many of our customers increase their orders in an attempt to avoid future price increases, resulting in increased sales for the Metals Segment. Conversely, when nickel prices decrease, many of our customers wait to place orders in an attempt to take advantage of subsequent price decreases, resulting in reduced sales for the Metals Segment. On average, the Metals Segment turns its inventory of commodity pipe every six months, but the nickel surcharge on sales of commodity pipe is established on a monthly basis. The difference, if any, between the price of nickel on the date of purchase of the raw material and the price, as established by the surcharge, on the date of sale has the potential to create an inventory price change gain or loss. If the price of nickel steadily increases over time the Metals Segment is the beneficiary of the increase in nickel price in the form of metal price change gains. We will incur inventory price losses in the future if nickel prices decrease. Any material changes in the cost of nickel could impact our sales and result in fluctuations in the profits of the Metals Segment.

We encounter significant competition in all areas of our businesses and may be unable to compete effectively, which could result in reduced profitability and loss of market share. We actively compete with companies producing the same or similar products and, in some instances, with companies producing different products designed for the same uses. We encounter competition from both domestic and foreign sources in price, delivery, service, performance, product innovation and product recognition and quality, depending on the product involved. For some of our products, our competitors are larger and have greater financial resources than we do. As a result, these competitors may be better able to withstand a change in conditions within the industries in which we operate, a change in the prices of raw materials or a change in the economy as a whole. Our competitors can be expected to continue to develop and introduce new and enhanced products and more efficient production capabilities, which could cause a decline in market acceptance of our products. Current and future consolidation among our competitors and customers also may cause a loss of market share as well as put downward pressure on pricing. Our competitors could cause a reduction in the prices for some of our products as a result of intensified price competition. Competitive pressures can also result in the loss of major customers. If we cannot compete successfully, our business, financial condition and profitability could be adversely affected.

*Our lengthy sales cycle for the Specialty Chemicals Segment makes it difficult to predict quarterly revenue levels and operating results.*Purchasing the products of the Specialty Chemicals Segment is a major commitment on the part of our customers. Before a potential customer determines to purchase products from the Specialty Chemicals Segment, the Company must produce test product material so that the potential customer is satisfied that we can manufacture a product to their specifications. The production of such test materials is a time-consuming process. Accordingly, the sales process for products in the Specialty Chemicals Segment is a lengthy process that requires a considerable investment of time and resources on our part. As a result, the timing of our revenues is difficult to predict, and the delay of an order could cause our revenues to fall below our expectations and those of the public market analysts and investors.

Our operations expose us to the risk of environmental, health and safety liabilities and obligations, which could have a material adverse effect on our financial condition, results of operations or cash flows. We are subject to numerous federal, state and local environmental protection and health and safety laws governing, among other things:

- the generation, use, storage, treatment, transportation, disposal and management of hazardous substances and wastes;
- emissions or discharges of pollutants or other substances into the environment;
- investigation and remediation of, and damages resulting from, releases of hazardous substances; and
- the health and safety of our employees.

Under certain environmental laws, we can be held strictly liable for hazardous substance contamination of any real property we have ever owned, operated or used as a disposal site. We are also required to maintain various environmental permits and licenses, many of which require periodic modification and renewal. Our operations entail the risk of violations of those laws and regulations, and we cannot assure you that we have been or will be at all times in compliance with all of these requirements. In addition, these requirements and their enforcement may become more stringent in the future.

We have incurred, and expect to continue to incur, additional capital expenditures in addition to ordinary costs to comply with applicable environmental laws, such as those governing air emissions and wastewater discharges. Our failure to comply with applicable environmental laws and permit requirements could result in civil and/or criminal fines or penalties, enforcement actions, and regulatory or judicial orders enjoining or curtailing operations or requiring corrective measures such as the installation of pollution control equipment, which could have a material adverse effect on our financial condition, results of operations or cash flows.

We are currently, and may in the future be, required to investigate, remediate or otherwise address contamination at our current or former facilities. Many of our current and former facilities have a history of industrial usage for which additional investigation, remediation or other obligations could arise in the future and that could materially adversely affect our business, financial condition, results of operations or cash flows. In addition, we are currently, and could in the future be, responsible for costs to address contamination identified at any real property we used as a disposal site.

Although we cannot predict the ultimate cost of compliance with any of the requirements described above, the costs could be material. Non-compliance could subject us to material liabilities, such as government fines, third-party lawsuits or the suspension of non-compliant operations. We also may be required to make significant site or operational modifications at substantial cost. Future developments also could restrict or eliminate the use of or require us to make modifications to our products, which could have a significant negative impact on our results of operations and cash flows. At any given time, we are involved in claims, litigation, administrative proceedings and investigations of various types involving potential environmental liabilities, including cleanup costs associated with hazardous waste disposal sites at our facilities. We cannot assure you that the resolution of these environmental matters will not have a material adverse effect on our results of operations or cash flows. The ultimate costs and timing of environmental liabilities are difficult to predict. Liability under environmental laws relating to contaminated sites can be imposed retroactively and on a joint and several basis. We could incur significant costs, including cleanup costs, civil or criminal fines and sanctions and third-party claims, as a result of past or future violations of, or liabilities under, environmental laws.

We could be subject to third party claims for property damage, personal injury, nuisance or otherwise as a result of violations of, or liabilities under, environmental, health or safety laws in connection with releases of hazardous or other materials at any current or former facility. We could also be subject to environmental indemnification claims in connection with assets and businesses that we have acquired or divested.

There can be no assurance that any future capital and operating expenditures to maintain compliance with environmental laws, as well as costs to address contamination or environmental claims, will not exceed any current estimates or adversely affect our financial condition and results of operations. In addition, any unanticipated liabilities or obligations arising, for example, out of discovery of previously unknown conditions or changes in laws or regulations, could have an adverse effect on our business, financial condition, results of operations or cash flows.

*We are dependent upon the continued operation of our production facilities, which are subject to a number of hazards.*In both of our business segments, but especially in the Specialty Chemicals Segment, our production facilities are subject to hazards associated with the manufacture, handling, storage and transportation of chemical materials and products, including leaks and ruptures, explosions, fires, inclement weather and natural disasters, unscheduled downtime and environmental hazards which could result in liability for workplace injuries and fatalities. In addition, some of our production capabilities are highly specialized, which limits our ability to shift production to another facility in the event of an incident at a particular facility. If a production facility, or a critical portion of a production facility, were temporarily shut down, we likely would incur higher costs for alternate sources of supply for our products. We cannot assure you that we will not experience these types of incidents in the future or that these incidents will not result in production delays, failure to timely fulfill customer orders or otherwise have a material adverse effect on our business, financial condition or results of operations.

Certain of our employees in the Metals Segment are covered by collective bargaining agreements, and the failure to renew these agreements could result in labor disruptions and increased labor costs. As of December 31, 2019, we had 247 employees represented by unions at our Bristol, Tennessee, Mineral Ridge, Ohio, and Munhall, Pennsylvania facilities, which is 41 percent of the aggregate number of Company employees. These employees are represented by three local unions affiliated with the United Steelworkers (the “Steelworkers Union"). The collective bargaining contracts for the Steelworkers Unions will expire in July 2024 (Bristol, TN), June 2020 (Mineral Ridge, OH), and January 2023 (Munhall, PA). Although we believe that our present labor relations are strong, our failure to renew these agreements on reasonable terms as the current agreements expire could result in labor disruptions and increased labor costs, which could adversely affect our financial performance.

Our current capital structure includes indebtedness, which is secured by all or substantially all of our assets and which contains restrictive covenants that may prevent us from obtaining adequate working capital, making acquisitions or capital improvements. Our existing credit facility contains restrictive covenants that limit our ability to, among other things, borrow money or guarantee the debts of others, use assets as security in other transactions, make investments or other restricted payments or distributions, change our business or enter into new lines of business, and sell or acquire assets or merge with or into other companies. In addition, our credit facility requires us to meet a minimum fixed charge coverage ratio which could limit our ability to plan for or react to market conditions or meet extraordinary capital needs and could otherwise restrict our financing activities. Our ability to comply with the covenants and other terms of our credit facility will depend on our future operating performance. If we fail to comply with such covenants and terms, we will be in default and the maturity of any then outstanding related debt could be accelerated and become immediately due and payable. In addition, in the event of such a default, our lender may refuse to advance additional funds, demand immediate repayment of our outstanding indebtedness, and elect to foreclose on our assets that secure the credit facility.

There were no events of default under our credit facility at December 31, 2019. Although we believe we will remain in compliance with these covenants in the foreseeable future and that our relationship with our lender is strong, there is no assurance our lender would consent to an amendment or waiver in the event of noncompliance; or that such consent would not be conditioned upon the receipt of a cash payment, revised principal payout terms, increased interest rates or restrictions in the expansion of the credit facility for the foreseeable future, or that our lender would not exercise rights that would be available to them, including, among other things, demanding payment of outstanding borrowings. In addition, our ability to obtain additional capital or alternative borrowing arrangements at reasonable rates may be adversely affected. All or any of these adverse events would further limit our flexibility in planning for, or reacting to, downturns in our business.

We may need new or additional financing in the future to expand our business or refinance existing indebtedness, and our inability to obtain capital on satisfactory terms or at all may have an adverse impact on our operations and our financial results. If we are unable to access capital on satisfactory terms and conditions, we may not be able to expand our business or meet our payment requirements under our existing credit facility. Our ability to obtain new or additional financing will depend on a variety of factors, many of which are beyond our control. We may not be able to obtain new or additional financing because we may have substantial debt, our current receivable and inventory balances do not support additional debt availability or because we may not have sufficient cash flows to service or repay our existing or future debt. In addition, depending on market conditions and our financial performance, equity financing may not be available on satisfactory terms or at all. If we are unable to access capital on satisfactory terms and conditions, this could have an adverse impact on our operations and our financial results.

Our existing property and liability insurance coverages contain exclusions and limitations on coverage. We maintain various forms of insurance, including insurance covering claims related to our properties and risks associated with our operations. From time-to-time, in connection with renewals of insurance, we have experienced additional exclusions and limitations on coverage, larger self-insured retentions and deductibles and higher premiums, primarily from the operations of the Specialty Chemicals Segment. As a result, our existing coverage may not be sufficient to cover any losses we may incur and in the future our insurance coverage may not cover claims to the extent that it has in the past and the costs that we incur to procure insurance may increase significantly, either of which could have an adverse effect on our results of operations or cash flows.

We may not be able to make the operational and product changes necessary to continue to be an effective competitor. We must continue to enhance our existing products and to develop and manufacture new products with improved capabilities in order to continue to be an effective competitor in our business markets. In addition, we must anticipate and respond to changes in industry standards that affect our products and the needs of our customers. We also must continue to make improvements in our productivity in order to maintain our competitive position. When we invest in new technologies, processes or production capabilities, we face risks related to construction delays, cost over-runs and unanticipated technical difficulties.

The success of any new or enhanced products will depend on a number of factors, such as technological innovations, increased manufacturing and material costs, customer acceptance and the performance and quality of the new or enhanced products. As we introduce new products or refine existing products, we cannot predict the level of market acceptance or the amount of market share these new or enhanced products may achieve. Moreover, we may experience delays in the introduction of new or enhanced products. Any manufacturing delays or problems with new or enhanced product launches will adversely affect our operating results. In addition, the introduction of new products could result in a decrease in revenues from existing products. Also, we may need more capital for product development and enhancement than is available to us, which could adversely affect our business, financial condition or results of operations. We sell our products in industries that are affected by technological changes, new product introductions and changing industry standards. If we do not respond by developing new products or enhancing existing products on a timely basis, our products will become obsolete over time and our revenues, cash flows, profitability and competitive position will suffer.

In addition, if we fail to accurately predict future customer needs and preferences, we may invest heavily in the development of new or enhanced products that do not result in significant sales and revenue. Even if we successfully innovate in the development of new and enhanced products, we may incur substantial costs in doing so, and our profitability may suffer. Our products must be kept current to meet the needs of our customers. To remain competitive, we must develop new and innovative products on an on-going basis. If we fail to make innovations, or the market does not accept our new or enhanced products, our sales and results could suffer.

Our inability to anticipate and respond to changes in industry standards and the needs of our customers, or to utilize changing technologies in responding to those changes, could have a material adverse effect on our business and our results of operations.

Our strategy of using acquisitions and dispositions to position our businesses may not always be successful, which may have a material adverse impact on our financial results and profitability. We have historically utilized acquisitions and dispositions in an effort to strategically position our businesses and improve our ability to compete. We plan to continue to do this by seeking specialty niches, acquiring businesses complementary to existing strengths and continually evaluating the performance and strategic fit of our existing business units. We consider acquisitions, joint ventures and other business combination opportunities as well as possible business unit dispositions. From time-to-time, management holds discussions with management of other companies to explore such opportunities. As a result, the relative makeup of the businesses comprising our Company is subject to change. Acquisitions, joint ventures and other business combinations involve various inherent risks, such as: assessing accurately the value, strengths, weaknesses, contingent and other liabilities and potential profitability of acquisition or other transaction candidates; the potential loss of key personnel of an acquired business; significant transaction costs that were not identified during due diligence; our ability to achieve identified financial and operating synergies anticipated to result from an acquisition or other transaction; impairments of goodwill; and unanticipated changes in business and economic conditions affecting an acquisition or other transaction. The amount and type of consideration and deal charges paid could have a short-term dilutive effect on the Company's earnings per share. However, such transactions are anticipated to provide long-term economic benefit to the Company. If acquisition opportunities are not available or if one or more acquisitions are not successfully integrated into our operations, this could have a material adverse impact on our financial results and profitability.

The loss of key members of our management team, or difficulty attracting and retaining experienced technical personnel, could reduce our competitiveness and have an adverse effect on our business and results of operations. The successful implementation of our strategies and handling of other issues integral to our future success will depend, in part, on our experienced management team. The loss of key members of our management team could have an adverse effect on our business. Although we have entered into employment agreements with key members of our management team including Craig C. Bram, President and Chief Executive Officer, Dennis M. Loughran, Senior Vice President and Chief Financial Officer, Sally M. Cunningham, Vice President of Corporate Administration, James G. Gibson, General Manager and President of Specialty Chemicals Segment, Steven J. Baroff, President and General Manager of Specialty, K. Dianne Beck, Vice President of Specialty, Christopher D. Sitka, Vice President of Specialty, Kevin Van Zandt, Vice President of Bristol Metals-Munhall, Maria Haughton Roberson, President of ASTI, and Rex Haughton, Vice President-Operations of ASTI, employees may resign from the Company at any time and seek employment elsewhere, subject to certain non-competition and confidentiality restrictions. Additionally, if we cannot retain our technical personnel or attract additional experienced technical personnel, our ability to compete could be harmed.

Federal, state and local legislative and regulatory initiatives relating to hydraulic fracturing, as well as governmental reviews of such activities could result in delays or eliminate new wells from being started, thus reducing the demand for our fiberglass and steel storage tanks, pressure vessels and heavy walled pipe and tube. Hydraulic fracturing (“fracking”) is currently an essential and common practice to extract oil from dense subsurface rock formations and this lower cost extraction method is a significant driving force behind the surge of oil exploration and drilling in several locations in the United States. However, the Environmental Protection Agency, U.S. Congress and state legislatures have considered adopting legislation to provide additional regulations and disclosures surrounding this process. In the event that new legal restrictions surrounding the fracking process are adopted in the areas in which our customers operate, we may see a dramatic decrease in Palmer's and Specialty - Texas' profitability which could have an adverse impact on our financial results.

*Our allowance for doubtful accounts may not be adequate to cover actual losses.*An allowance for doubtful accounts in maintained for estimated losses resulting from the inability of our customers to make required payments. This allowance may not be adequate to cover actual losses, and future provisions for losses could materially and adversely affect our operating results. The allowance for doubtful accounts is based on an evaluation of the outstanding receivables and existing economic conditions. The amount of future losses is susceptible to changes in economic, operating and other outside forces and conditions, all of which are beyond our control, and these losses may exceed current estimates. Although management believes that the allowance for doubtful accounts is adequate to cover current estimated losses, management cannot make assurances that we will not further increase the allowance for doubtful accounts based on subsequent events and economic conditions. A significant increase in the allowance for doubtful accounts could adversely affect our earnings.

We depend on third parties to distribute certain of our products and because we have no control over such third parties we are subject to adverse changes in such parties' operations or interruptions of service, each of which may have an adverse effect on our operations. We use third parties over which we have only limited control to distribute certain of our products. Our dependency on these third party distributors has increased as our business has grown. Because we rely on these third parties to provide distribution services, any change in our ability to access these third party distribution services could have an adverse impact on our revenues and put us at a competitive disadvantage with our competitors.

*Freight costs for products produced in our Palmer facility restrict our sales area for this facility.*The freight and other distribution costs for products sold from our Palmer facility are extremely high. As a result, the market area for these products is restricted, which limits the geographic market for Palmer's tanks and the ability to significantly increase revenues derived from sales of products from the Palmer facility.

New regulations related to "conflict minerals" may force us to incur additional expenses, may make our supply chain more complex and may result in damage to our reputation with customers. On August 22, 2012, under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Dodd-Frank Act"), the SEC adopted new requirements for companies that use certain minerals and metals, known as conflict minerals, in their products, whether or not these products are manufactured by third parties. These regulations require companies to conduct annual due diligence and disclose whether or not such minerals originate from the Democratic Republic of Congo and adjoining countries. Tungsten and tantalum are designated as conflict minerals under the Dodd-Frank Act. These metals are used to varying degrees in our welding materials and are also present in specialty alloy products. These new requirements could adversely affect the sourcing, availability and pricing of minerals used in our products. In addition, we could incur additional costs to comply with the disclosure requirements, including costs related to determining the source of any of the relevant minerals and metals used in our products. Since our supply chain is complex, we may not be able to sufficiently verify the origins for these minerals and metals used in our products through the due diligence procedures that we implement, which may harm our reputation. In such event, we may also face difficulties in satisfying customers who could require that all of the components of our products are conflict mineral-free.

Our inability to sufficiently or completely protect our intellectual property rights could adversely affect our business, prospects, financial condition and results of operations. Our ability to compete effectively in both of our business segments will depend on our ability to maintain the proprietary nature of the intellectual property used in our businesses. These intellectual property rights consist largely of trade-secrets and know-how. We rely on a combination of trade secrets and non-disclosure and other contractual agreements and technical measures to protect our rights in our intellectual property. We also depend upon confidentiality agreements with our officers, directors, employees, consultants and subcontractors, as well as collaborative partners, to maintain the proprietary nature of our intellectual property. These measures may not afford us sufficient or complete protection, and others may independently develop intellectual property similar to ours, otherwise avoid our confidentiality agreements or produce technology that would adversely affect our business, prospects, financial condition and results of operations.

*Our internal controls over financial reporting could fail to prevent or detect misstatements.*Because of its inherent limitations, internal controls over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Any failure to maintain effective internal controls or to timely effect any necessary improvement in our internal controls and disclosure controls could, among other things, result in losses from fraud or error, harm our reputation or cause investors to lose confidence in our reported financial information, all of which could have a material adverse effect on our financial condition, results of operations and cash flows.

Cyber security risks and cyber incidents could adversely affect our business and disrupt operations. Cyber incidents can result from deliberate attacks or unintentional events. These incidents can include, but are not limited to, gaining unauthorized access to digital systems for purposes of misappropriating assets or sensitive information, corrupting data, or causing operational disruption. The result of these incidents could include, but are not limited to, disrupted operations, misstated financial data, liability for stolen assets or information, increased cyber security protection costs, litigation and reputational damage adversely affecting customer or investor confidence.

Loss of key supplier authorizations, lack of product availability, or changes in supplier distribution programs could adversely affect our sales and earnings. Our business depends on maintaining an immediately available supply of various products to meet customer demand. Many of our relationships with key product suppliers are longstanding, but are terminable by either party. The loss of key supplier authorizations, or a substantial decrease in the availability of their products, could put us at a competitive disadvantage and have a material adverse effect on our business. Supply interruptions could arise from raw material shortages, inadequate manufacturing capacity or utilization to meet demand, financial problems, tariffs and other regulations affecting trade between the U.S. and other countries, labor disputes or weather conditions affecting suppliers' production, transportation disruptions or other reasons beyond our control.

In addition, as a master distributor, we face the risk of key product suppliers changing their relationships with distributors generally, or Specialty in particular, in a manner that adversely impacts us. For example, key suppliers could change the following: the prices we must pay for their products relative to other distributors or relative to competing products; the geographic or product line breadth of distributor authorizations; supplier purchasing incentive or other support programs; or product purchase or stock expectations.

The purchasing incentives we earn from product suppliers can be impacted if we reduce our purchases in response to declining customer demand. Certain of our product and raw material suppliers have historically offered to their customers and distributors, including us, incentives for purchasing their products. In addition to market or customer account-specific incentives, certain suppliers pay incentives to the customer or distributor for attaining specific purchase volumes during the program period. In some cases, in order to earn incentives, we must achieve year-over-year growth in purchases with the supplier. When the demand for our products declines, we may be less willing to add inventory to take advantage of certain incentive programs, thereby potentially adversely impacting our profitability.

We may be adversely affected by changes in LIBOR reporting practices or the method in which LIBOR is determined. As of December 31, 2019, we had outstanding bank debt of approximately 75.6 million that was indexed to the London Interbank Offered Rate ("LIBOR"). On July 27, 2017, the Financial Conduct Authority (the "FCA") announced its intention to phase out LIBOR rates by the end of 2021. It is not possible to predict the further effect of the rules of the FCA, any changes in the methods by which LIBOR is determined, or any other reforms to LIBOR that may be enacted in the United Kingdom, the European Union or elsewhere. Any such developments may cause LIBOR to perform differently than in the past or cease to exist. In addition, any other legal or regulatory changes made by the FCA, ICE Benchmark Administration Limited, the European Money Markets Institute (formerly Euribor-EBF), the European Commission or any other successor governance or oversight body, or future changes adopted by such body, in the method by which LIBOR is determined or the transition from LIBOR to a successor benchmark may result in, among other things, a sudden or prolonged increase or decrease in LIBOR, a delay in the publication of LIBOR, and changes in the rules or methodologies in LIBOR, which may discourage market participants from continuing to administer or to participate in LIBOR's determination, and, in certain situations, could result in LIBOR no longer being determined and published. If a published U.S. dollar LIBOR rate is unavailable after 2021, the interest rates on our debt which is indexed to LIBOR will be determined using various alternative methods, any of which may result in interest obligations which are more than or do not otherwise correlate over time with the payments that would have been made on such debt if U.S. dollar LIBOR was available in its current form. Further, the same costs and risks that may lead to the discontinuation or unavailability of U.S. dollar LIBOR may make one or more of the alternative methods impossible or impracticable to determine. Any of these proposals or consequences could have a material adverse effect on our financing costs.

Item 1B Unresolved Staff Comments

None.

Item 2 Properties

The Company operates the major plants and facilities listed below, all of which are in adequate condition for their current usage. All facilities throughout the Company are believed to be adequately insured. The buildings are of various types of construction including brick, steel, concrete, concrete block and sheet metal. All have adequate transportation facilities for both raw materials and finished products. In September 2016, the Company sold its real estate properties previously owned in Tennessee, South Carolina, Texas and Ohio to Store Master Funding XII, LLC ("Store Funding") and concurrently leased back these real properties; see Note 10 to the Consolidated Financial Statements included in Item 8 of this Form 10-K.

On February 28, 2017, BRISMET purchased certain stainless steel pipe and tube assets of MUSA in Munhall, PA ("MUSA-Stainless"). As part of this acquisition, BRISMET entered into a 15-month lease with the sellers for the current manufacturing facility. The lease was amended to extend the term of the lease to May 31, 2023. On July 1, 2018, BRISMET completed the MUSA-Galvanized acquisition. In connection with this acquisition, the Company entered into an Amended and Restated Master Lease Agreement (the "Master Lease") on June 29, 2018, pursuant to which the Company will lease the Munhall, PA facility, purchased by Store Funding from MUSA for the remainder of the initial term of 20 years set forth in the Master Lease.

On January 1, 2019, ASTI completed the American Stainless acquisition. In connection with the acquisition, the Company and Store Funding entered into a second Amended and Restated Master Lease, pursuant to which the Company will lease the properties purchased by Store Funding from American Stainless on January 1, 2019, for the remainder of the initial term of 20 years set forth in the Master Lease.

A parcel of land in Mineral Ridge, OH used for inventory storage, the corporate headquarters located in Richmond, VA, and the former shared service center located in Spartanburg, SC continue to be leased by the Company from other parties.

Location	Principal Operations	Building Square Feet	Land Acres
Munhall, PA	Manufacturing stainless steel pipe	284,000	20.0
Bristol, TN	Manufacturing stainless steel pipe	275,000	73.1
Cleveland, TN	Chemical manufacturing and warehousing facilities	143,000	18.8
Fountain Inn, SC	Chemical manufacturing and warehousing facilities	136,834	16.9
Andrews, TX	Manufacturing liquid storage solutions and separation equipment	122,662	19.6
Troutman, NC	Manufacturing ornamental stainless steel tubing	106,657	26.5
Statesville, NC	Manufacturing ornamental stainless steel tubing	83,000	26.8
Houston, TX	Cutting facility and storage yard for heavy walled pipe	29,821	10.0
Mineral Ridge, OH	Cutting facility and storage yard for heavy walled pipe	12,000	12.0
Mineral Ridge, OH	Storage yard for heavy walled pipe	—	4.6
Richmond, VA	Corporate headquarters	5,911	—
Spartanburg, SC	Former office space for corporate employees and shared service center (1)	4,858	—
Augusta, GA	None (2)	—	46.0

(1) Property leased by Company; office was closed in 2018 and all furniture and equipment have been removed.

(2) Property owned by Company; plant was closed in 2001 and all structures and manufacturing equipment have been removed.

Item 3 Legal Proceedings

For a discussion of legal proceedings, see Note 11 to the Consolidated Financial Statements included in Item 8 of this Form 10-K.

Item 4 Mine Safety Disclosures

Not applicable.

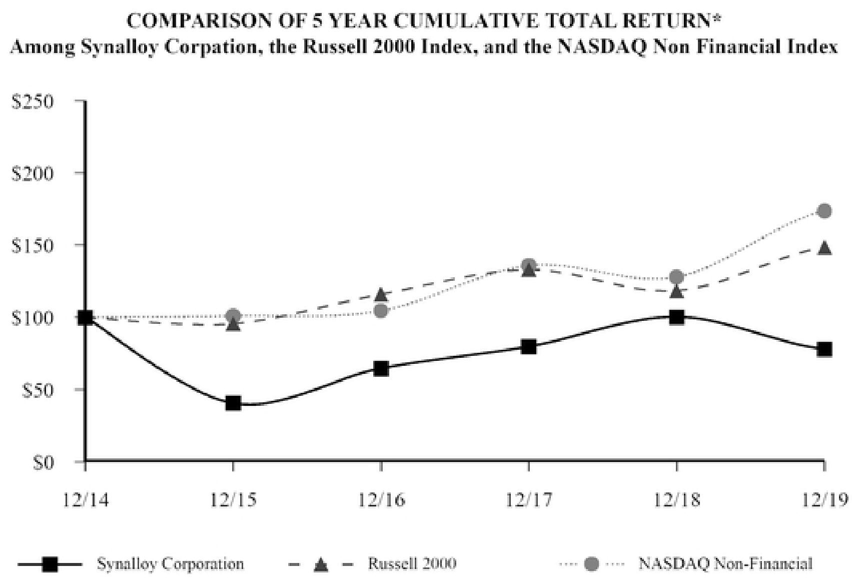
PART II

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

The Company had 409 common shareholders of record at March 4, 2020. The Company's common stock trades on the Nasdaq Global Market under the trading symbol SYNL. The Company's credit agreement restricts the payment of dividends indirectly through a minimum fixed charge coverage covenant. No dividends were declared or paid in 2019. The Company paid a $0.25 cash dividend on December 12, 2018 and a $0.13 cash dividend on November 6, 2017. The prices shown below are the high and low sales prices for the common stock for each full quarterly period in the last two fiscal years as quoted on the NASDAQ Global Market.

	2019		2018	
Quarter	High	Low	High	Low
1st	$ 16.80	$ 12.45	$ 15.50	$ 12.11
2nd	19.65	14.00	21.35	13.63
3rd	17.17	16.25	24.80	19.20
4th	16.02	11.45	23.01	12.60

The information required by Item 201(d) of Regulation S-K is set forth in Part III, Item 12 of this Annual Report on Form 10-K.



*$100 invested on 12/31/14 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

Source: Russell Investment Group

Comparison of 5 Year Cumulative Total Return Graph

	12/14	12/15	12/16	12/17	12/18	12/19
Synalloy Corporation	$ 100.00	$ 40.62	$ 64.65	$ 79.82	$ 100.34	$ 78.09
Russell 2000	100.00	95.59	115.95	132.94	118.30	148.49
NASDAQ Non-Financial	100.00	100.93	104.49	135.77	127.88	173.66

This graph and related information shall not be deemed to be “filed” with the Securities and Exchange Commission or “soliciting material” or subject to Regulation 14A, or the liabilities of Section 18 of the 1934 Act, except to the extent the Company specifically requests that such information be treated as soliciting material or specifically incorporates it by reference into a filing under the Securities Act of 1933 or the 1934 Act.

Unregistered Sales of Equity Securities

Pursuant to the compensation arrangement with directors discussed under Item 12 "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" in this Form 10-K, on May 16, 2019, the Company issued an aggregate of 15,909 shares of restricted stock to non-employee directors in lieu of $304,000 of their annual cash retainer fees. Issuance of these shares was not registered under the Securities Act of 1933 based on the exemption provided by Section 4(a)(2) thereof because no public offering was involved.

The Company also issued 146,956 shares of common stock in2019 to management and key employees that vested pursuant to the 2005 and 2015 Stock Awards Plans. Issuance of these shares was not registered under the Securities Act of 1933 based on the exemption provided by Section 4(a)(2) thereof because no public offering was involved.

Issuer Purchases of Equity Securities

Neither the Company, nor any affiliated purchaser (as defined in Rule 10b-18(a)(3) of the 1934 Act) on behalf of the Company repurchased any of the Company's securities during the year ended December 31, 2019.

Item 6. Selected Financial Data

The selected financial data presented below should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our consolidated financial statements (including the related notes thereto) contained elsewhere in this report.

(Dollar amounts in thousands, except per share data)	2019	2018	2017	2016	2015
Operations					
Net sales	$ 305,168	$ 280,841	$ 201,148	$ 138,566	$ 175,460
Gross profit	30,773	51,237	28,081	16,904	25,319
Selling, general & administrative expense	32,627	27,691	24,875	22,673	21,938
Goodwill impairment	—	—	—	—	17,158
Operating (loss) income	(1,708)	21,237	2,057	(8,246)	(13,031)
Net (loss) income - continuing operations	(3,036)	13,097	1,341	(6,994)	(10,269)
Net (loss) - discontinued operations	—	—	—	(99)	(1,251)
Net (loss) income	(3,036)	13,097	1,341	(7,093)	(11,520)
Financial Position					
Total assets	257,197	228,399	159,874	138,638	149,043
Working capital	106,537	130,233	74,396	64,868	58,310
Long-term debt, less current portion	71,554	76,405	25,914	8,804	23,410
Shareholders' equity	106,511	102,484	89,700	88,593	95,154
Financial Ratios					
Current ratio	3.6:1	4.5:1	3.2:1	3.0:1	3.2:1
Gross profit to net sales	10 %	18%	14%	12 %	14 %
Long-term debt to capital	41 %	43%	22%	9 %	20 %
Return on average assets	(1)%	7%	1%	(4)%	(6)%
Return on average equity	(3)%	14%	2%	(7)%	(10)%
Per Share Data (Loss)/Income) – Diluted)					
Net (loss) income - continuing operations	$ (0.34)	$ 1.48	$ 0.15	$ (0.81)	$ (1.18)
Net (loss) - discontinued operations	—	—	—	(0.01)	(0.14)
Net (loss) income	(0.34)	1.48	0.15	(0.82)	(1.32)
Dividends declared and paid	—	0.25	0.13	—	0.30
Book value	11.86	11.54	10.28	10.22	11.02
Other Data					
Depreciation and amortization	$ 11,064	$ 8,775	$ 7,738	$ 6,695	$ 6,634
Capital expenditures	4,537	7,355	5,279	3,044	10,905
Employees at year end	606	607	533	412	411
Shareholders of record at year end	410	442	488	527	540
Average shares outstanding - diluted	8,983	8,878	8,728	8,650	8,710
Stock Price					
Price range of common stock					
High	$ 19.65	$ 24.80	$ 15.30	$ 11.70	$ 18.49
Low	11.45	12.11	9.75	6.42	6.20
Close	12.91	16.59	13.40	10.95	6.88

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

Critical Accounting Policies and Estimates

Management's Discussion and Analysis of Financial Condition and Results of Operations discusses the Company's consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. On an on-going basis, management evaluates its estimates and judgments based on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. Management believes the following critical accounting policies, among others, affect its more significant judgments and estimates used in the preparation of the Company's consolidated financial statements.

Inventory Adjustments and Reserves

At the end of each quarter, all facilities review recent sales reports to identify sales price trends that would indicate products or product lines that are being sold below our cost. This would indicate that an adjustment would be required.

During the years ended December 31, 2019 and December 31, 2018, adjustments of $0.2 million and $0.1 million, respectively, to inventory cost were required by our storage tank facility as lower demand for oil and gas products caused the net realizable value to fall below inventory cost for certain tanks.

Stainless steel, both in its raw material (coil or plate) or finished goods (pipe) state is purchased/sold using a base price plus an additional surcharge which is dependent on current nickel prices. As raw materials are purchased, it is priced to the Company based upon the surcharge at that date. When the selling price of the finished pipe is set for the customer, approximately three months later, the then-current nickel surcharge is used to determine the proper selling prices. A lower of cost or net realizable value ("LCNRV") adjustment is recorded when the Company's inventory cost, based upon a historical nickel price, is greater than the current selling price of that product due to a reduction in the nickel surcharge. During the years ended December 31, 2019 and December 31, 2018, no material LCNRV adjustments were required by our Metals Segment.

The Company establishes inventory reserves for:

- Estimated obsolete or unmarketable inventory. As of December 31, 2019 and December 31, 2018, the Company identified inventory items with no sales or expected sales activity for finished goods or no usage for raw materials for a certain period of time. For those inventory items that are not currently being marketed and unable to be sold, a reserve was established for 100 percent of the inventory cost less any estimated scrap proceeds. The Company reserved $0.3 million at December 31, 2019 and December 31, 2018, respectively.
- Estimated quantity losses. The Company performs an annual physical inventory during the fourth quarter each year. For those facilities that complete their physical inventory before the end of December, a reserve is established for the potential quantity losses that could occur subsequent to their physical. This reserve is based upon the most recent physical inventory results. At December 31, 2019 and December 31, 2018, the Company had $0.4 million reserved for expected physical inventory quantity losses.

Impairment of Long-Lived Assets

The Company continually reviews the recoverability of the carrying value of long-lived assets. Long-lived assets are reviewed for impairment when events or changes in circumstances, also referred to as "triggering events", indicate that the carrying value of a long-lived asset or group of assets (the "Assets") may no longer be recoverable. Triggering events include: a significant decline in the market price of the Assets; a significant adverse change in the operating use or physical condition of the Assets; a significant adverse change in legal factors or in the business climate impacting the Assets' value, including regulatory issues such as environmental actions; the generation by the Assets of historical cash flow losses combined with projected future cash flow losses; or the expectation that the Assets will be sold or disposed of significantly before the end of the useful life of the Assets.

Business Combinations

Acquisitions are accounted for using the acquisition method of accounting for business combinations in accordance with GAAP. Under this method, the total consideration transferred to consummate the acquisition is allocated to the identifiable tangible and intangible assets acquired and liabilities assumed based on their respective fair values as of the closing date of the acquisition.

The acquisition method of accounting requires extensive use of estimates and judgments to allocate the consideration transferred to the identifiable tangible and intangible assets, if any, acquired and liabilities assumed.

Goodwill

Goodwill, which represents the excess of purchase price over fair value of net assets acquired, is tested for impairment at the reporting unit level, annually in the fourth quarter and whenever circumstances indicate that the carrying value may not be recoverable. The evaluation of impairment involves using either a step zero qualitative approach or a quantitative approach, if required, as outlined in Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 350. The step zero approach allows an entity to first assess qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. If an entity cannot make this determination, then the quantitative approach will be followed. The quantitative approach involves a comparison of the fair value of the reporting unit in which the goodwill is recorded to its carrying amount. If the reporting unit's fair value exceeds its carrying value, no impairment loss is recognized. However, if the reporting unit's carrying value exceeds its fair value, an impairment charge equal to the difference in the carrying value of the goodwill and reporting unit's fair value is recorded.

When the quantitative approach is used, in making our determination of fair value of the reporting unit, we rely on the discounted cash flow method. This method uses projections of cash flows from the reporting unit. This approach requires significant judgments including the Company's projected net cash flows, the weighted average cost of capital used to discount the cash flows and terminal value assumptions. We derive these assumptions used in the testing from several sources. Many of these assumptions are derived from our internal budgets, which would include existing sales data based on current product lines and assumed production levels, manufacturing costs and product pricing. We believe that our internal forecasts are consistent with those that would be used by a potential buyer in valuing our reporting units. The Company performed the quantitative analysis during the fourth quarter of 2019 which resulted in no impairment of the goodwill recognized of$1.4 million for the Specialty Chemicals Segment or the goodwill recognized of $16.2 million for the Metals Segment for the year endedDecember 31, 2019.

Earn-Out Liabilities

In connection with the American Stainless acquisition on January 1, 2019, the Company is required to make quarterly earn-out payments to American Stainless for a period of three years following closing. Pursuant to the asset purchase agreement between ASTI and American Stainless, earn-out payments will equate to six and one-half percent (6.5 percent) of ASTI’s revenue over the three-year earn-out period. In determining the appropriate discount rate to apply to the contingent payments, the risk associated with the functional form of the earn-out, and the credit risk associated with the payment of the earn-out were all considered. The fair value of the contingent consideration was estimated by applying the probability weighted expected return method using management's estimates of pounds to be shipped and future price per unit. Changes to the fair value of the earn-out liability are determined each quarter-end and charged to income or expense in the “Earn-Out Adjustments” line item in the Consolidated Statements of Operations and Comprehensive Income

In connection with the MUSA-Galvanized acquisition on July 1, 2018, the Company is required to make quarterly earn-out payments to MUSA for a period offour years following closing, based on actual sales levels of galvanized pipe and tube. The fair value of the contingent consideration was estimated by applying the probability-weighted expected return method using management's estimates of pounds to be shipped and future price per unit. Changes to the fair value of the earn-out liability are determined each quarter-end and charged to income or expense in the “Earn-Out Adjustments” line item in the Consolidated Statements of Operations and Comprehensive Income.

In connection with the MUSA-Stainless acquisition on February 28, 2017, the Company is required to make quarterly earn-out payments to MUSA for a period of4 years following closing, based on actual sales levels of stainless steel pipe and tube (outside diameter of 10 inches or less). The fair value of the contingent consideration was estimated by applying the Monte Carlo simulation approach using management's estimates of pounds shipped and future price per unit. Changes to the fair value of the earn-out liability are determined each quarter-end and charged to income or expense in the “Earn-Out Adjustments” line item in the Consolidated Statements of Operations and Comprehensive Income.

Liquidity and Capital Resources

The Company had cash flows generated by operating activities during 2019 that totaled $28.6 million; cash flows used in operating activities in 2018 totaled $21.2 million, a year-over-year increase of $49.9 million. The significant components of those results are as follows:

- Net loss for 2019 was $3.0 million. Add backs for non-cash items include a) depreciation and amortization expense of$11.1 million and b) stock-based compensation expense of $2.1 million, while outflows for non-cash items include c) the earn-out adjustments of$0.7 million, and d) all other non-cash items of $0.8 million. The prior year amount includes net income of $13.1 million, plus add backs for non-cash items of a) depreciation and amortization of$8.8 million, b

) the earn-out adjustment of $1.4 million and c) an unrealized loss on investments in equity securities of$2.6 million.

- Accounts receivable generated $9.7 million of cash from operations during 2019 as days outstanding decreased 10 days in 2019, decreasing from 52 days at the end of 2018 to 42 days at the end of 2019.

- Inventory generated $20.0 million of cash from operations as inventory levels decreased in2019. The year-over-year decrease was primarily related to efforts to balance inventory with projected business level. Inventory turns decreased 15% from 1.90 turns at December 31, 2018, calculated on a three-month average basis, to 1.62 turns at December 31, 2019.

- Accounts payable used $5.3 million of cash from operations in 2019, excluding the American Stainless acquisition date payable, as increased levels of business activity, which would normally increase the accounts payable balance, were offset by a return to a more normalized accounts payable days outstanding of approximately 31 days at December 31, 2019 compared to 57 days at December 31, 2018.

- Other operating assets and liabilities used $4.2 million of cash from operations in 2019.

In 2019, the Company's current assets decreased $20.4 million while current liabilities increased $3.3 million, from the year ended 2018 amounts, which caused working capital for 2019 to decrease by $23.7 million to $106.5 million from the 2018 total of $130.2 million. The current ratio for the year ended December 31, 2019, decreased to 3.6:1compared to the 2018 year-end ratio of 4.5:1.

The Company used cash from investing activities during 2019 of $25.7 million. The American Stainless acquisition during the first quarter 2019 used $21.9 million and the Company incurred capital asset purchases of $4.5 million. The Company used cash from financing activities during 2019 of $4.5 million as the Company borrowed funds during 2019 for the aforementioned acquisition and capital purchases partially offset by repayments of the line of credit.

On October 30, 2017, the Company amended its Credit Agreement with its bank to increase the limit of its asset-based line of credit (the "Line") by$20 million to a maximum of $65 million and extended the maturity date. Interest under the Credit Agreement is calculated using the One Month LIBOR Rate (as defined in the Credit Agreement), plus a pre-defined spread. Borrowings under the Credit Agreement are limited to an amount equal to a Borrowing Base calculation (as defined in the Credit Agreement) that includes eligible accounts receivable and inventory.

On June 29, 2018, the Company amended its Credit Agreement with its bank to increase the limit of the Line by$15 million to a maximum of $80 million. As a result of the amendment, the interest rate on the Line is now calculated using One Month LIBOR plus a spread of 1.65 percent. None of the other provisions of the Credit Agreement were changed as a result of this amendment.

On December 20, 2018, the Company amended its Credit Agreement with its bank to refinance and increase the Line from$80 million to $100 million and to create a new 5-year term loan in the principal amount of $20 million (the “Term Loan”). The Term Loan was used to finance the American Stainless acquisition (see Note 15 to the Consolidated Financial Statements).

The Company determined that each refinancing should be accounted for as a debt modification. The Company incurred lender and third party costs associated with the debt restructuring that were capitalized on the balance sheet while certain other third party costs were expensed.

Pursuant to the Credit Agreement, the Company was required to pledge all of its tangible and intangible properties, including the stock and membership interests of its subsidiaries. In the Credit Agreement, the Company's bank agreed to release its liens on the real estate properties covered by the Purchase and Sale Agreement with Store Funding, as described in Note 10.

Covenants under the amended Credit Agreement include maintaining a minimum fixed charge coverage ratio, maintaining a minimum tangible net worth, and a limitation on the Company’s maximum amount of capital expenditures per year. At December 31, 2019, the Company was in compliance with all debt covenants. The Company believes that its current liquidity position is sufficient to meet its needs going forward.

Results of Operations

Comparison of 2019 to 2018 – Consolidated

For the full-year 2019, net loss totaled $3.0 million, or $0.34 per diluted loss per share. This compared to full-year2018 net income of $13.1 million, or $1.48 diluted earnings per share. For the fourth quarter of 2019 the Company recorded a net loss of $0.9 million, or $0.10 diluted loss per share. This compares to net income of$0.5 million, or $0.06 diluted earnings per share for fourth quarter of 2018.

The full-year and fourth quarter of 2019 were positively impacted by mark-to-market valuation gains on investments in equity securities totaling $1.9 million and $1.7 million, respectively, compared to a valuation losses of $2.6 million for the full year of 2018 and $2.1 million in the fourth quarter of 2018, respectively. The full-year and fourth quarter 2019 operating results include an operating profit of $3.0 million and $0.7 million, respectively, due to ASTI's operations which were acquired in the first quarter of 2019. The full-year and fourth quarter 2018 operating results include an operating profit of $65,000 and $96,000, respectively, due to Munhall-Galvanized's operations which were acquired in the third quarter of 2018.

Full-year 2019 consolidated gross profit decreased 40 percent to $30.8 million, or 10 percent of sales, compared to $51.2 million, or 18 percent of sales, in 2018. For the fourth quarter of 2019, consolidated gross profit was $7.0 million, a decrease of 32 percent from the fourth quarter of 2018 of $10.3 million. Consolidated gross profit was 10 percent of sales for the fourth quarter of 2019 and 14 percent of sales for the same period of 2018. The decreases in dollars and in percentage of sales were attributable to the Metals Segment as discussed in the Metals Segment Comparison of 2019 to 2018 below.

Consolidated selling, general and administrative expense for 2019 increased by $4.9 million to $32.6 million, or 11 percent of sales, compared to $27.7 million, or 10 percent of sales for 2018. These costs increased $0.4 million during the fourth quarter of 2019 to $7.7 million compared to $7.3 million for the same period of 2018 and were 11 percent of sales for the fourth quarter of 2019 compared to 10 percent of sales for the fourth quarter of 2018. The most significant dollar increase for both the full year and fourth quarter of 2019 when compared to the same periods of 2018 resulted from higher personnel costs due to annual merit increases and growth-related staffing increases ($1.6 million higher for the full year and $0.4 million higher for the fourth quarter); an increase in stock compensation expense related to the vesting of shares under the Company's Long-Term Incentive Program ($1.3 million higher for the full year and $0.1 million higher for the fourth quarter); and an increase in amortization expense ($1.1 million higher for the full year and $0.3 million higher for the fourth quarter). The inclusion of ASTI's selling, general and administrative expenses added $4.0 million for the year and $0.9 million for the fourth quarter. Because the American Stainless acquisition occurred in January of 2019, none of ASTI's selling, general, and administrative expenses were included in the prior year. The remainder of the increase for the year resulted primarily from:

- Sales commissions related to higher sales ($0.7 million higher for the full year and $40,000 higher for the fourth quarter)
- Higher professional fees related to work performed for the American Stainless acquisition ($0.5 million higher for the full year);

In addition, the Company incurred $1.9 million for one-time acquisition costs associated with the 2019 American Stainless acquisition, compared to $1.2 million of acquisition costs in 2018. These costs were $0.2 million and $0.3 million for the fourth quarters of 2019 and 2018, respectively. These items are discussed in greater detail in the respective sections below.

Comparison of 2018 to 2017 – Consolidated

For the full-year 2018, net income totaled $13.1 million, or $1.48 per diluted earnings per share. This compared to full-year 2017 net income of $1.3 million, or $0.15 diluted earnings per share. For the fourth quarter of 2018 the Company recorded net income of $0.5 million, or $0.06 diluted earnings per share. This compares to net income of $1.0 million, or $0.11 diluted earnings per share for fourth quarter of 2017.

The full-year and fourth quarter of 2018 were negatively impacted by mark-to-market valuation losses on investments in equity securities totaling $2.6 million and $2.1 million, respectively, compared to a valuation gain of $0.3 million for the full year of 2017 and no such gain or loss in the fourth quarter of 2017. The full-year and fourth quarter 2018 operating results include an operating profit of $65,000 and $96,000, respectively, due to Munhall-Galvanized's operations which were acquired in the third quarter 2018.

Full-year 2018 consolidated gross profit increased 82 percent to $51.2 million, or 18 percent of sales, compared to $28.1 million, or 14 percent of sales, in 2017. For the fourth quarter of 2018, consolidated gross profit was $10.3 million, an increase of 34 percent from the fourth quarter of 2017 of $7.7 million. Consolidated gross profit was 14 percent of sales for the fourth quarter of 2018 and 15 percent of sales for same period of 2017. The increases in dollars and in percentage of sales were attributable to the Metals Segment as discussed in the Metals Segment Comparison of 2018 to 2017 below.

Consolidated selling, general and administrative expense for 2018 increased by $2.8 million to $27.7 million, or 10 percent of sales, compared to $24.9 million, or 12 percent of sales for 2017. These costs increased $1.3 million during the fourth quarter of 2018 to $7.3 million compared to $6.0 million for the same period of 2017 and were 10 percent of sales for the fourth quarter of 2018 compared to 11 percent of sales for the fourth quarter of 2017. The most significant dollar increase for both the full year and fourth quarter of 2018 when compared to the same periods of 2017 resulted from higher incentive based bonuses, increases of $2.0 million and $0.5 million, respectively. The inclusion of Munhall-Galvanized's selling, general and administrative expenses for the second half and fourth quarter of 2018, added $0.3 million and $0.2 million, respectively. Because the MUSA-Galvanized acquisition occurred in July of 2018, none of Munhall-Galvanized's selling, general, and administrative expenses were included in the prior year. The Company also incurred lower lease expense of $0.4 million related to the inclusion of the Munhall facility into the Master Lease with Store Funding (see Note 10 to the Consolidated Financial Statements). The remainder of the increase for the year resulted primarily from:

- Higher personnel costs due to annual merit increases and growth-related staffing increases ($0.8 million higher for the full year and $0.3 million higher for the fourth quarter);
- Sales commissions related to higher sales ($0.2 million higher for the full year and $0.2 million higher for the fourth quarter)

In addition, the Company incurred $1.2 million for one-time acquisition costs associated with the 2018 MUSA-Galvanized acquisition and 2019 American Stainless acquisition, compared to $0.8 million of acquisition costs in 2017. These costs were $0.3 million and $13,000 for the fourth quarters of 2018 and 2017, respectively. These items will be discussed in greater detail in the respective sections below.

Metals Segment

The following table summarizes operating results from continuing operations for the three years indicated. Reference should be made to Note 13 to the Consolidated Financial Statements included in Item 8 of this Form 10-K.

	2019		2018		2017	
(in thousands)	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**
Net sales	$ 251,078	100.0%	$ 222,242	100.0 %	$ 152,957	100.0 %
Cost of goods sold	226,852	90.4%	178,766	80.4 %	133,452	87.2 %
Gross profit	24,226	9.6%	43,476	19.6 %	19,505	12.8 %
Selling, general and administrative expense	20,534	8.2%	15,932	7.2 %	14,080	9.2 %
(Gain) loss on sale-leaseback	—	—%	(240)	(0.1)%	(240)	(0.2)%
Operating income (loss)	**$ 3,692**	**1.5%**	**$ 27,784**	**12.5 %**	**$ 5,664**	**3.7 %**

Comparison of 2019 to 2018 - Metals Segment

The Metals Segment's net sales totaled $251.1 million for the full year of 2019, an increase of 13 percent compared to the same period of 2018. Net sales for the fourth quarter of 2019 totaled $55.4 million, a decrease of seven percent compared to the fourth quarter 2018 net sales of $59.4 million. Excluding net sales for ASTI (for the twelve months ended December 31, 2019) and Munhall-Galvanized (for the first six months of 2019), full-year 2019 sales decreased eight percent compared to the same period of 2018 and fourth quarter 2019 sales decreased 20 percent compared to the same period for 2018, primarily related to a 60% decline in storage tank and vessel sales, loss of value added Heavy Wall volume due to the disclosed outage starting in May 2019, as well as nickel and alloy related pricing declines compared to prior year.

Welded Pipe & Tube Operations net sales from continuing operations increased 21 percent and two percent for the full-year and fourth quarter of 2019, respectively, when compared to the same periods of the prior year. Excluding ASTI (for the twelve months ended December 31, 2019) and Munhall-Galvanized (for the first six months of 2019), net sales would have decreased nine percent and 16 percent for the full year and fourth quarter of 2019, respectively. The total sales increase for the year resulted from a 49 percent increase in unit volumes partially offset by a 18 percent decrease in average selling price. For the fourth quarter, unit volumes increased 17 percent while the average selling price decreased 12 percent for 2019 compared to 2018. The lower average selling price for the full-year was significantly impacted by the incremental sales of Munhall-Galvanized, as sales of that more commodity galvanized pipe and tube had an unfavorable effect on average selling prices. Excluding the impact of Munhall-Galvanized, the average selling price of stainless steel pipe and tube decreased 5 percent for the full year of 2019 compared to the full year of 2018, primarily due to declines in nickel and other alloy related surcharges that impacted realized sales prices.

Seamless heavy-wall carbon steel pipe and tube sales decreased six percent and five percent for the full-year and fourth quarter, respectively, of 2019 compared to the same periods of 2018. The full year sales decrease was comprised of a three percent decrease in unit volumes combined with a three percent decrease in average selling price. For the fourth quarter, unit volumes increased seven percent while average selling prices decreased 11 percent. Lower pricing was primarily due to product mix and lessening impact of tariff pricing supports in the market, but was also impacted by the overhang of excessive distributor inventories, slowing market demand and reduced mill pricing.

Storage tank sales decreased nine percent and 60 percent for the full-year and fourth quarter, respectively, of 2019 when compared to the same periods for the prior year. The full-year decrease was comprised of a 22.5 percent increase in the average selling price, offset by a 25 percent decline in the number of tanks sold. As of December 31, 2019, backlog for storage tanks totaled $5.8 million, a decrease of 72 percent over levels as of December 31, 2018. For the fourth quarter, the storage tank sales decrease resulted from a 59 percent decrease in the number of tanks sold combined with a 3.5 percent increase in average selling price. The decrease in both sales levels and backlog is attributable to a significant retrenchment in completion of wells in the Permian Basin during the fourth quarter, as well as stagnant oil prices that are down 20.1 percent from early in the fourth quarter of 2018 and have seen no significant rebound in 2019.

The Metals Segment's operating income decreased $24.1 million to $3.7 million for the full-year 2019 compared to operating income of $27.8 million for 2018. Fourth quarter 2019 operating income decreased $4.1 million to $0.6 million compared to operating income of $4.7 million for the fourth quarter of 2018. Current year operating results were affected by the following factors:

- The addition of ASTI operations as noted above. The full-year 2019 and fourth quarter of 2019 operating results includes $3.0 million and $0.7 million, respectively, for ASTI operations. These amounts do not reflect the earn-out adjustment for the year since that expense is not included in the Metals Segment's operating results.

- Nickel prices and resulting surcharges for 304 and 316 alloys experienced significant increases and decreases during 2019, with the net result being significant margin reduction as inventories bought at higher surcharge levels were sold during declining pricing periods. As a result, the full year of 2019 generated a net unfavorable operating impact of $6.4 million related to metal pricing, compared to a period of significantly more favorable indexed nickel prices overall in 2018, which generated metal pricing gains of $5.0 million.

- Year over year changes in volume, pricing and product mix in welded pipe and tube, as noted above, combined for a $13.4 million decline in operating profit margins in 2019 compared to 2018.

- Operating income from seamless carbon pipe and tube showed a decline of $2.4 million related to lower volume and pricing noted above.

Selling, general and administrative expense increased $4.6 million, or 29 percent, for the full-year 2019 when compared to 2018. This expense category was 8 percent of sales for 2019 and 7 percent of sales for 2018. For the fourth quarter, selling, general and administrative expense was $5.1 million (9 percent of sales) in 2019, an increase of $1.0 million from $4.1 million (7 percent of sales) for the same period of 2018. The dollar increase for both the year and fourth quarter of 2019 when compared to the same periods of 2018 were impacted by the inclusion of ASTI's selling, general and administrative expenses. Because the American Stainless acquisition occurred in January of 2019, none of ASTI's selling, general and administrative expenses were included in the prior year. This accounted for $4.0 million and $0.9 million of the full-year and fourth quarter increase in selling, general and administrative costs for 2019. The remaining changes in selling, general and administrative expense resulted from:

- Allocated administrative costs (higher by $1.3 million and $0.2 million for the full-year and fourth quarter, respectively);

- Lower incentive bonus expense on a full-year basis by $1.2 million;

- Compensation expenses primarily related to merit increases (higher by $0.2 million on a full-year basis); and

- Lower amortization expense (lower by $60,000 and $25,000 for the full-year and fourth quarter, respectively)

Comparison of 2018 to 2017 - Metals Segment

The Metals Segment's net sales totaled $222.2 million for the full year of 2018, an increase of 45 percent compared to the same period of 2017. Net sales for the fourth quarter of 2018 totaled $59.4 million, an increase of 44 percent compared to the fourth quarter 2017 net sales of $41.1 million. Excluding Munhall-Galvanized, acquired in the third quarter of 2018, full-year 2018 sales increased 38 percent compared to the same period of 2017 and fourth quarter 2018 sales were 31 percent greater than the same period for 2017.

Stainless and galvanized steel pipe net sales from continuing operations increased 58 percent and 61 percent for the full-year and fourth quarter of 2018, respectively, when compared to the same periods of the prior year. Excluding Munhall-Galvanized, net sales would have increased 46 percent and 41 percent for the full year and fourth quarter of 2018, respectively. The total sales increase for the year resulted from a 60 percent increase in unit volumes partially offset by a two percent decrease in average selling price. For the fourth quarter, unit volumes increased 72 percent while the average selling price decreased six percent for 2018 compared to 2017. The lower average selling price for the full-year and fourth quarter resulted from the incremental sales of Munhall-Galvanized, as their sales of more commodity galvanized pipe and tube had an unfavorable effect on average selling prices. Excluding the impact of Munhall-Galvanized, the average selling price of stainless steel pipe and tube increased 19 percent and 29 percent for the full year and fourth quarter of 2018, respectively, compared to the same periods of 2017.

Seamless heavy-wall carbon steel pipe and tube sales increased 29 percent and 23 percent for the full-year and fourth quarter, respectively, of 2018 compared to the same periods of 2017. The full year sales increase was comprised of a six percent increase in unit volumes combined with a 21 percent increase in average selling price. For the fourth quarter, unit volumes decreased four percent while average selling prices increased 26 percent. Heavier demand in 2018, primarily related to stable demand in the oil and gas sector, improvements in demand in the general industrial sector, as well as tariff induced price increases, drove the sales increase.

Storage tank sales increased 15 percent and two percent for the full-year and fourth quarter, respectively, of 2018 when compared to the same periods for the prior year. The full-year increase was comprised of a 25 percent increase in the average selling price, offset by a 15 percent decline in the number of tanks sold. With a significant portion of the average price increase related to an increase in both size and complexity of tanks being purchased, the decline in units sold relates primarily to throughput capabilities rather than any decline in overall demand. As of December 31, 2018, backlog for storage tanks totaled $20.7 million, an improvement of 20 percent over levels as of December 31, 2017. For the fourth quarter, the storage tank sales increase resulted from a 28 percent decrease in the number of tanks sold combined with a 44 percent increase in average selling price. The results highlight strong demand and activity in the Permian Basis and other Palmer delivery areas, even as West Texas Intermediate ("WTI") pricing and other economic indicators have shown some variability during 2018.

The Metals Segment's operating income increased $22.1 million to $27.8 million for the full-year 2018 compared to operating income of $5.7 million for 2017. Fourth quarter 2018 operating income increased $1.7 million to $4.7 million compared to operating income of $3.0 million for the fourth quarter of 2017. Current year operating results were affected by the following factors:

- The addition of Munhall-Galvanized operations as noted above. The full-year 2018 and fourth quarter of 2018 operating results includes $65,000 and $95,000, respectively, for Munhall-Galvanized operations. These amounts do not reflect the earn-out adjustment for the year since that expense is not included in the Metals Segment's operating results.

- Nickel prices and resulting surcharges for 304 and 316 alloys ended the fourth quarter of 2018 lower than the previous quarter, with surcharges for both alloys decreasing by $0.11 and $0.13 per pound, respectively; average nickel prices for the quarter generated a net unfavorable operating impact of $0.2 million related to metal pricing, compared to an unfavorable net impact of $1.0 million for the fourth quarter of 2017. The current quarter's metal price change loss brought the full year metal price change gain to $5.0 million, compared to the full year 2017 metal price change loss of $2.6 million.

- Year over year changes in volume, pricing and product mix, as noted above, combined for a 53 percent improvement in gross profit margins in 2018 compared to 2017.

- Operating income from seamless carbon pipe and tube showed a significant 246 percent improvement over the prior year.

Selling, general and administrative expense increased $1.9 million, or 13 percent, for the full-year 2018 when compared to 2017. This expense category was seven percent of sales for 2018 and nine percent of sales for 2017. For the fourth quarter, selling, general and administrative expense was $4.1 million (seven percent of sales) in 2018, an increase of $0.7 million from $3.4 million (eight percent of sales) for the same period of 2017. The dollar increase for both the year and fourth quarter of 2018 when compared to the same periods of 2017 were impacted by the inclusion of Munhall-Galvanized's selling, general and administrative expenses. Because the MUSA-Galvanized acquisition occurred in July of 2018, none of Munhall-Galvanized's selling, general and administrative expenses were included in the prior year. This accounted for $0.3 million and $0.2 million of the full-year and fourth quarter increase in selling, general and administrative costs for 2018. The remaining changes in selling, general and administrative expense resulted from:

- Higher incentive bonus expense ($1.2 million higher and $0.2 million higher for the full-year and fourth quarter, respectively);

- Lower lease expenses related to the inclusion of the Munhall facility into the Master Lease with Store Funding ($0.4 million lower for the full year - see Note 10 to the Consolidated Financial Statements);

- Allocated administrative costs (higher by $0.4 million and $96,000 for the full-year and fourth quarter, respectively);

- Compensation expenses primarily related to merit increases and higher direct sales headcount (higher by $0.7 million and $0.3 million for the full-year and fourth quarter, respectively), which were offset by lower commissions on a full year basis by $0.3 million;
- Higher travel costs (higher by $0.2 million and $67,000 for the full-year and fourth quarter, respectively);
- Higher bad debt expense (higher by $0.2 million and $0.2 million for full-year and fourth quarter, respectively); and
- Lower amortization expense (lower by $63,000 and $10,000 for the full-year and fourth quarter, respectively)

Specialty Chemicals Segment

The following tables summarize operating results for the three years indicated. Reference should be made to Note 13 to the Consolidated Financial Statements included in Item 8 of this Form 10-K.

	2019		2018		2017	
(in thousands)	Amount	%	Amount	%	Amount	%
Net sales	$ 54,090	100.0%	$ 58,599	100.0 %	$ 48,191	100.0 %
Cost of goods sold	46,983	86.9%	50,393	86.0 %	39,217	81.4 %
Gross profit	7,107	13.1%	8,206	14.0 %	8,974	18.6 %
Selling, general and administrative expense	4,296	7.9%	4,327	7.4 %	4,679	9.7 %
(Gain) loss on sale-leaseback	—	—%	(95)	(0.2)%	(95)	(0.2)%
Operating income	**$ 2,811**	**5.2%**	**$ 3,974**	**6.8 %**	**$ 4,390**	**9.1 %**

Comparison of 2019 to 2018 – Specialty Chemicals Segment

Sales for the Specialty Chemicals Segment decreased by 8 percent, or $4.5 million, to $54.1 million for 2019 compared to $58.6 million in 2018. For the fourth quarter of 2019, sales were $12.6 million, representing a 5.5 percent decrease from $13.3 million for the same quarter of 2018. For the full year, overall shipped pounds were up three percent on stable volume for contract manufactured products and an eight percent increase in tolled products. For the fourth quarter of 2019, pounds shipped decreased four percent. Overall selling prices decreased 10 percent and one percent for the full-year and fourth quarter, respectively, of 2019 compared to the same periods of 2018. Net sales were unfavorably impacted during the full year of 2019 from non-repeat of $2.4 million in opportunistic 2018 asphalt related sales, lower pass-through pricing on lower cost raw materials of $0.8 million, lower conversion revenue of approximately $0.6 million on higher levels of tolled versus full priced product sales, and $0.7 million in lower fourth quarter 2019 sales related to retrenchment in purchases to manage year-end working capital.

The Specialty Chemicals Segment's operating income for the full-year of 2019 decreased 29 percent to $2.8 million. The fourth quarter of 2019 decreased 35 percent from the prior year quarter to $0.4 million. During 2019, gross profit margin held relatively steady to previous 2018 levels, at 13 percent versus 14 percent, respectively. Lower profit in 2019 is primarily related to lost contribution of approximately $0.9 million on lost asphalt and other sales noted above, as well as a $0.3 million benefit in 2018 from a legal claim settlement that did not repeat in 2019.

Selling, general and administrative expense decreased $30,584 or 0.7 percent, to $4.30 million in 2019 when compared to 2018 expense of $4.33 million, which represented 8 percent of sales and 7 percent of sales, respectively. For the fourth quarter, selling, general and administrative expense was $1.0 million (8 percent of sales) in 2019, a decrease of $0.1 million when compared to $1.1 million (8 percent of sales) for the same period of 2018.

The full-year decreases in selling, general and administrative expenses resulted from:

- Lower sales commissions ($0.3 million and $0.1 million lower for the full-year and fourth quarter, respectively);
- Lower incentive based bonuses ($0.1 million and $38,500 lower for the full-year and fourth quarter, respectively);

The full-year decreases were offset by:

- Higher wages and benefits ($62,000 and $13,000 higher for the full-year and fourth quarter, respectively); and
- Higher professional fees and allocated expenses ($0.3 million and $56,000 higher for the full-year and fourth quarter, respectively).

Comparison of 2018 to 2017 – Specialty Chemicals Segment

Sales for the Specialty Chemicals Segment increased by 22 percent or $10.4 million to $58.6 million for 2018 compared to $48.2 million in 2017. For the fourth quarter of 2018, sales were $13.3 million, representing a 14 percent increase from $11.7 million for the same quarter of 2017. Pounds shipped during the full-year decreased by one percent for 2018 compared to 2017. For the fourth quarter of 2018, pounds shipped increased eight percent. Overall selling prices increased 23 percent and six percent for the full-year and fourth quarter, respectively, of 2018 compared to the same periods of 2017. Net sales were favorably impacted during the full year and fourth quarter of 2018 from the initial ramp up of seven significant customers, a new fire retardant and new asphalt additive customers at our subsidiary, CRI Tolling (a one-time sourcing not planned to repeat in 2019), two new oil and gas customers and two new pulp/paper customers at our subsidiary, MC, and a new product launch from an existing customer at MC.

The Specialty Chemicals Segment's operating income for the full-year of 2018 decreased nine percent to $4.0 million. The fourth quarter of 2018 increased 10 percent from the prior year quarter to $0.6 million. While the fourth quarter showed modest improvement, the full second-half 2018 operating income results outperformed the prior year second-half by $0.3 million, or 15 percent. During the second half of 2018, margins were realigned as new higher margin products were added to the portfolio. However, that strong second-half performance could not overcome a first-half shortfall of $0.7 million, or 26 percent, compared to the prior year , yielding a net decline on both a dollar basis and operating margin percent basis for the full-year.

Selling, general and administrative expense decreased $0.4 million or seven percent, to $4.3 million in 2018 when compared to 2017 expense of $4.7 million, which represented seven percent of sales and ten percent of sales, respectively. For the fourth quarter, selling, general and administrative expense was $1.1 million (eight percent of sales) in 2018, an increase of $0.2 million when compared to $0.9 million (seven percent of sales) for the same period of 2017.

The full-year decreases in selling, general and administrative expenses resulted from:

- Lower wages and benefits in 2018 ($0.2 million and $38,000 lower for the full-year and fourth quarter, respectively);
- Lower professional fees and allocated expenses ($0.4 million and $0.1 million lower for the full-year and fourth quarter, respectively);
- Lower bad debt expenses ($0.2 million and $15,000 lower for the full-year and fourth quarter, respectively); and
- A $0.3 million gain related to a legal settlement in 2018;

The full-year decreases were offset by:

- Higher sales commissions ($0.5 million and $0.2 million higher for the full-year and fourth quarter, respectively); and
- Higher incentive based bonuses ($0.3 million and $0.2 million higher for the full-year and fourth quarter, respectively).

Comparison of 2019 to 2018 - Corporate

Corporate expenses increased $0.5 million to $8.4 million, or three percent of sales, in 2019 up from $7.9 million, three percent of sales, in 2018. The full-year increase resulted primarily from:

- Three year Long-Term Incentive Plan performance shares were accrued in the current year, at a cost of $0.7 million;
- Professional fees increased by $0.5 million from the prior year resulting from higher audit and banking fees in the current year;

The full-year increases were partially offset by:

- Lower unallocated acquisition costs of $0.7 million related to the American Stainless acquisition, which transaction closed on January 1, 2019.

Interest expense was $3.8 million and $2.2 million for the full-years of 2019 and 2018, respectively. The increase was primarily related to higher average debt outstanding in the full year of 2019, as additional borrowings were primarily related to funds borrowed related to the January 1 American Stainless acquisition, offset during the year by almost $17 million in net inventory and other working capital reductions.

Comparison of 2018 to 2017 - Corporate

Corporate expenses increased $1.4 million to $7.9 million, or three percent of sales, in 2018 up from $6.5 million, three percent of sales, in 2017. The full-year increase resulted primarily from:

- Performance based bonuses increased $0.5 million from the prior year. Pre-defined Adjusted EBITDA targets were achieved in both 2018 and 2017;

- Acquisition costs increased $0.4 million from the prior year due to the MUSA-Galvanized acquisition in the third quarter of 2018 (see Note 15 to the Consolidated Financial Statements), as well as fourth quarter costs incurred due to the American Stainless acquisition, which transaction closed on January 1, 2019 (see Note 15 to the Consolidated Financial Statements); and

- Personnel costs were $0.3 million higher as a result of normal annual rate increases;

Interest expense was $2.2 million and $1.0 million for the full-years of 2018 and 2017, respectively. The increase was primarily related to higher average debt outstanding in the fourth quarter and full year of 2018, as additional borrowings were primarily related to acquisitions and to support working capital requirements associated with increased business activity.

Contractual Obligations and Other Commitments:

As of December 31, 2019, the Company's contractual obligations and other commitments were as follows:

		Payment Obligations for the Year Ended					
(in thousands)	**Total**	**2020**	**2021**	**2022**	**2023**	**2024**	**Thereafter**
Obligations:							
Revolving credit facility	$ 59,221	$ —	$ 59,221	$ —	$ —	$ —	$ —
Term loans	16,333	4,000	4,000	4,000	4,000	333	—
Interest on bank debt	7,775	3,798	3,651	234	86	6	—
Finance lease	603	275	316	12	—	—	—
Operating leases	66,622	3,562	3,635	3,673	3,563	3,635	48,554
Total	$ 150,554	$ 11,635	$ 70,823	$ 7,919	$ 7,649	$ 3,974	$ 48,554

Current Conditions and Outlook

The Company has limited visibility on the direction of the manufacturing economy in 2020. Trade with China remains an issue as does the outcome of the Presidential election. Capital spending is under pressure, particularly in the energy markets. We do not expect a recession in 2020, but we do anticipate a period of flat to softening demand across our more industrial focused markets. With this backdrop, over the last 60 days of 2019, we initiated a cost cutting program across the entire Company. In addition to the work done at our vessel storage business in the fourth quarter, the Company implemented over $6 million in annual cost savings, which will be fully realized in 2020. The cost reductions cover everything from personnel, raw materials, other manufacturing costs and professional services.

Item 7A Quantitative and Qualitative Disclosures about Market Risk

The Company is exposed to market risks from adverse changes in interest rates and nickel prices.

Changes in United States interest rates affect the interest earned on the Company's cash and cash equivalents as well as interest paid on its indebtedness. Except as described below, the Company does not engage in speculative or leveraged transactions, nor does it hold or issue financial instruments for trading purposes. The Company is exposed to changes in interest rates primarily as a result of its borrowing activities used to maintain liquidity and fund business operations.

Fair value of the Company's debt obligations at December 31, 2019, which approximated the recorded value, consisted of:

- $59.2 million under a revolving line of credit with an availability of $13.4 million, expiring on December 20, 2021 with a variable interest rate of 3.50 percent.
- $16.3 million under a term loan, expiring January 1, 2024 with a variable interest rate of 3.69 percent.
- An interest rate swap contract with a notional amount of $6.0 million which fixes the term loan interest rate at 3.74 percent. The fair value of the interest rate swap contract was an asset to the Company of $6,088.

The Company occasionally hedges its nickel exposure to provide coverage against extreme downside product pricing exposure related to the content of nickel alloy contained in purchased stainless steel inventory. The sales price of stainless steel product (containing nickel alloy) is subject to a variable pricing component for alloys (nickel, chrome, molybdenum and iron) contained in the product. AtDecember 31, 2019, the Company had no such hedge contracts in place.

Management's Annual Report on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Securities and Exchange Act of 1934. The Company's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. Management has excluded the ASTI facilities operations (acquired in the American Stainless acquisition) from its assessment of internal control over financial reporting as of December 31, 2019 because this material acquisition closed in the first quarter of 2019. Total assets of $26.8 million and total revenue of $34.5 million associated with the ASTI facility represent approximately 14 percent of the related financial statement amounts of the Metals Segment as of, and for the year ended, December 31, 2019.

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

Management conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as ofDecember 31, 2019 using the criteria established by the Committee of Sponsoring Organizations of the Treadway Commission in the *Internal Control-Integrated Framework (COSO 2013).* Based on that evaluation, management believes the Company's internal control over financial reporting was effective as of December 31, 2019.

The effectiveness of the Company's internal control over financial reporting as ofDecember 31, 2019, has been audited by KPMG LLP, an independent registered public accounting firm, which also audited the Company's Consolidated Financial Statements for the year ended December 31, 2019. KPMG LLP's report on the Company's internal control over financial reporting is set forth below.

Changes in Internal Control Over Financial Reporting

There was no change in the Company's internal control over financial reporting that occurred during the Company's fourth quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. The Company believes that its disclosure controls and procedures were operating effectively as of December 31, 2019.

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Synalloy Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Synalloy Corporation and subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of operations and comprehensive (loss) income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement Schedule II (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 6, 2020, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company has changed its method of accounting for leases effective January 1, 2019, due to the adoption of Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 842, *Leases*.

Basis for Opinion

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

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

/s/ KPMG LLP

We have served as the Company's auditor since 2015.

Richmond Virginia
March 6, 2020

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Synalloy Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited Synalloy Corporation and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, and the related consolidated statements of operations and comprehensive (loss) income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement Schedule II (collectively, the consolidated financial statements), and our report dated March 6, 2020 expressed an unqualified opinion on those consolidated financial statements.

The Company acquired American Stainless Tubing, Inc. (American Stainless) during 2019, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2019, American Stainless' internal control over financial reporting associated with total assets of $26.8 million and total revenues of $34.5 million included in the consolidated financial statements of the Company as of and for the year ended December 31, 2019. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of American Stainless.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

/s/ KPMG LLP

Richmond, Virginia
March 6, 2020

Item 8 Financial Statements and Supplementary Data

Index to Financial Statements

SYNALLOY CORPORATION
Consolidated Balance Sheets
As of December 31, 2019 and 2018
(in thousands, except par value and share data)

	2019	2018
Assets		
Current assets		
Cash and cash equivalents	$ 626	$ 2,220
Accounts receivable, net	35,074	41,065
Inventories, net		
Raw materials	42,643	59,779
Work-in-process	17,354	21,034
Finished goods	38,189	33,389
Total inventories, net	98,186	114,202
Prepaid expenses and other current assets	13,229	9,983
Total current assets	147,115	167,470
Property, plant and equipment, net	40,690	40,925
Right-of-use assets, operating leases, net	35,772	—
Goodwill	17,558	9,800
Intangible assets, net	15,714	9,696
Deferred charges, net and other non-current assets	348	508
Total assets	$ 257,197	$ 228,399
Liabilities and Shareholders' equity		
Current liabilities		
Accounts payable	$ 21,150	$ 25,074
Accrued expenses	11,613	12,163
Current portion of long-term debt	4,000	—
Current portion of operating lease liabilities	3,562	—
Current portion of finance lease liabilities	253	—
Total current liabilities	40,578	37,237
Long-term debt	71,554	76,405
Long-term portion of earn-out liability	3,578	4,704
Long-term portion of operating lease liabilities	33,723	—
Long-term portion of finance lease liabilities	336	—
Long-term deferred sale-leaseback gain	—	5,599
Deferred income taxes	790	253
Other long-term liabilities	127	1,717
Shareholders' equity		
Common stock, par value $1 per share - authorized 24,000,000 shares; issued 10,300,000 shares	10,300	10,300
Capital in excess of par value	37,407	36,521
Retained earnings	70,552	68,965
Accumulated other comprehensive loss	—	—
	118,259	115,786
Less cost of common stock in treasury - 1,257,784 and 1,424,279 shares, respectively	11,748	13,302
Total shareholders' equity	106,511	102,484
Commitments and contingencies – see Note 11		
Total liabilities and shareholders' equity	$ 257,197	$ 228,399

See accompanying notes to consolidated financial statements.

	2019	2018	2017
Net sales	$ 305,168	$ 280,841	$ 201,148
Cost of sales	274,395	229,604	173,067
Gross profit	30,773	51,237	28,081
Selling, general and administrative expense	32,627	27,691	24,875
Acquisition related costs	601	1,212	795

Earn-out adjustments	(747)	1,431	688
Gain on sale-leaseback	—	(334)	(334)
Operating (loss) income	(1,708)	21,237	2,057
Other (income) and expense			
Interest expense	3,818	2,211	985
Change in fair value of interest rate swap	141	(20)	(96)
Other, net	(1,904)	2,573	(310)
(Loss) Income before income taxes	(3,763)	16,473	1,478
(Benefit from) provision for income taxes	(727)	3,376	137
Net (loss) income	(3,036)	13,097	1,341
Other comprehensive (loss) income, net of tax:			
Unrealized gains on available for sale securities, net	—	—	355
Reclassification adjustment for gains included in net income, net	—	—	(366)
Comprehensive (loss) income	$ (3,036)	$ 13,097	$ 1,330
Net (loss) income per common share:			
Basic	$ (0.34)	$ 1.49	$ 0.15
Diluted	$ (0.34)	$ 1.48	$ 0.15
Weighted average number of common shares outstanding:			
Basic	8,983	8,806	8,705
Diluted	8,983	8,878	8,728

See accompanying notes to consolidated financial statements.

SYNALLOY CORPORATION
Consolidated Statements of Shareholders' Equity
For the years ended December 31, 2019, 2018 and 2017
(in thousands, except share and per share data)

	Common Stock	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Cost of Common Stock in Treasury	Total
Balance at December 31, 2016	$ 10,300	$ 34,714	$ 57,937	$ —	$ (14,358)	$ 88,593
Net income	—	—	1,341	—	—	1,341
Other comprehensive loss	—	—	—	(11)	—	(11)
Payment of dividends, $0.13 per share	—	—	(1,149)	—	—	(1,149)
Stock options exercised for 5,389 shares, net	—	68	—	—	(68)	—
Issuance of 58,532 shares of common stock from the treasury	—	(227)	—	—	515	288
Stock-based compensation expense	—	638	—	—	—	638
Balance at December 31, 2017	$ 10,300	$ 35,193	$ 58,129	$ (11)	$ (13,911)	$ 89,700
Net income	—	—	13,097	—	—	13,097
Cumulative adjustment due to adoption of ASU 2016-01	—	—	(11)	11	—	—
Payment of dividends, $0.25 per share	—	—	(2,250)	—	—	(2,250)
Issuance of 66,632 shares of common stock from the treasury	—	(317)	—	—	593	276
Stock options exercised for 31,488 shares, net	—	247	—	—	(396)	(149)
Stock-based compensation expense	—	827	—	—	—	827
Issuance of 44,378 shares in connection with at-the-market offering	—	571	—	—	412	983
Balance at December 31, 2018	$ 10,300	$ 36,521	$ 68,965	$ —	$ (13,302)	$ 102,484
Net loss	—	—	(3,036)	—	—	(3,036)
Cumulative-effect adjustment related to ASU 2016-02, net of tax	—		4,623	—		4,623
Issuance of 162,869 shares of common stock from the treasury	—	(1,217)	—	—	1,521	304
Stock options exercised for 3,628 shares, net	—	12	—	—	33	45
Stock-based compensation expense	—	2,091	—	—	—	2,091
Balance at December 31, 2019	$ 10,300	$ 37,407	$ 70,552	$ —	$ (11,748)	$ 106,511

See accompanying notes to consolidated financial statements.

SYNALLOY CORPORATION
Consolidated Statement of Cash Flows
For the years ended December 31, 2019, 2018 and 2017
(in thousands)

	2019	2018	2017
Operating activities			
Net (loss) income	$ (3,036)	$ 13,097	$ 1,341
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			
Depreciation expense	7,578	6,412	5,295
Amortization expense	3,486	2,363	2,443
Amortization of debt issuance costs	160	132	60
Unrealized (gain) loss on equity securities	(1,547)	2,573	—
Deferred income taxes	(773)	(383)	(1,037)
Gain on sale of available for sale securities	(326)	—	(310)
Earn-out adjustments	(747)	1,431	688
Payments of earn-out liabilities in excess of acquisition date fair value	(448)	(194)	—
(Reduction of) provision for losses on accounts receivable	(171)	240	202
Provision for losses on inventories	1,617	1,828	1,196
(Gain) loss on sale of property, plant and equipment	(50)	(18)	25
Amortization of deferred gain on sale-leaseback	—	(334)	(334)
Noncash lease expense	560	445	397
Change in fair value of interest rate swap	(141)	(20)	(96)
Issuance of treasury stock for director fees	304	276	288
Stock-based compensation expense	2,091	827	638
Changes in operating assets and liabilities:			
Accounts receivable	9,696	(10,413)	(10,877)
Inventories	19,962	(41,157)	(7,088)
Other assets and liabilities	179	(1,524)	11,230
Accounts payable	(5,323)	(234)	7,572
Accrued expenses	(3,317)	2,093	(9,424)
Accrued income taxes	(1,114)	1,339	26
Net cash provided by (used in) operating activities	**28,640**	**(21,221)**	**2,235**
Investing activities			
Purchases of property, plant and equipment	(4,537)	(7,355)	(5,279)
Proceeds from sale of property, plant and equipment	189	—	73
Purchases of equity securities	(544)	(4,970)	(4,383)
Proceeds from sale of available for sale securities	1,092	—	4,142
Acquisition of the stainless pipe and tube assets of Marcegaglia USA, Inc. ("MUSA")	—	—	(11,953)
Acquisition of the galvanized pipe and tube assets of MUSA	—	(10,378)	—
Acquisition of ASTI	(21,895)	—	—
Net cash (used in) provided by investing activities	**(25,695)**	**(22,703)**	**(17,400)**
Financing activities			
(Repayments) borrowings from line of credit	(17,185)	50,492	17,109
Borrowings from term loan	20,000	—	—
Net proceeds from at-the-market offering	—	983	—
Payments on long-term debt	(3,666)	—	—
Principal payments on finance lease obligations	(106)	(337)	(125)
Payments on earn-out liabilities	(3,627)	(2,261)	(518)
Payments of debt issuance costs	—	(383)	(200)
Proceeds from exercised stock options	45	142	—
Dividends paid	—	(2,215)	(1,149)
Tax withholdings related to net share settlements of exercised stock options	—	(291)	—
Net cash (used in) provided by financing activities	**(4,539)**	**46,130**	**15,117**
(Decrease) increase in cash and cash equivalents	(1,594)	2,206	(48)
Cash and cash equivalents at beginning of year	2,220	14	62
Cash and cash equivalents at end of year	**$ 626**	**$ 2,220**	**$ 14**

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Note 1: Summary of Significant Accounting Policies

Description of Business

Synalloy Corporation (the "Company") was incorporated in Delaware in 1958 as the successor to a chemical manufacturing business founded in 1945. Its charter is perpetual. The name was changed on July 31, 1967 from Blackman Uhler Industries, Inc. The Company's executive office is located at 4510 Cox Road, Suite 201, Richmond, Virginia 23060.

The Company's business is divided into two reportable operating segments, the Metals Segment and the Specialty Chemicals Segment. As of December 31, 2019, the Metals Segment operated as three reportable units including Welded Pipe & Tube Operations, a unit that includes Bristol Metals, LLC ("BRISMET") and American Stainless Tubing, LLC ("ASTI"), which began operations effective January 1, 2019 pursuant to our acquisition of substantially all of the assets of American Stainless Tubing, Inc. ("American Stainless") (see Note 15 to the Consolidated Financial Statements), Palmer of Texas Tanks, Inc. ("Palmer"), and Specialty Pipe & Tube, Inc. ("Specialty"). Welded Pipe & Tube Operations manufactures stainless steel, galvanized, ornamental stainless steel tubing, and other alloy pipe and tube, Palmer manufactures liquid storage solutions and separation equipment and Specialty is a master distributor of seamless carbon pipe and tube. The Specialty Chemicals Segment operates as one reportable unit and is comprised of MC and CRI Tolling, and produces specialty chemicals.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its subsidiaries, all of which are wholly-owned. The Metals Segment is comprised of four subsidiaries: Synalloy Metals, Inc. which owns 100 percent of BRISMET, located in Bristol, Tennessee and Munhall, Pennsylvania; ASTI, located in Troutman and Statesville, North Carolina; Palmer, located in Andrews, Texas and Specialty, located in Mineral Ridge, Ohio and Houston, Texas. The Specialty Chemicals Segment consists of two subsidiaries: MS&C which owns 100 percent of MC, located in Cleveland, Tennessee and CRI Tolling, located in Fountain Inn, South Carolina. All significant intercompany transactions have been eliminated.

Cash and Cash Equivalents

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

Accounts Receivable

Accounts receivable from the sale of products are recorded at net realizable value and the Company generally grants credit to customers on an unsecured basis. Substantially all of the Company's accounts receivable are due from companies located throughout the United States. The Company provides an allowance for doubtful accounts for projected uncollectable amounts. The allowance is based upon a review of outstanding receivables, historical collection information and existing economic conditions. The Company performs periodic credit evaluations of its customers' financial condition and generally does not require collateral. Receivables are generally due within 30 to 60 days. Delinquent receivables are written off based on individual credit evaluations and specific circumstances of the customer.

Inventories

Inventories are stated at the lower of cost or net realizable value. Cost is determined by either specific identification or weighted average methods.

Inventory cost is adjusted when its recorded cost is below net realizable value. At the end of each quarter, all facilities review recent sales reports to identify sales price trends that would indicate products or product lines that are being sold below cost. This would indicate that an adjustment would be required.

In addition, the Company establishes inventory reserves for:

- Estimated obsolete or unmarketable inventory. The Company identified inventory items with no sales activity for finished goods or no usage for raw materials for a certain period of time. For those inventory items not currently being marketed and unable to be sold, a reserve was established for 100 percent of the inventory cost less any estimated scrap proceeds. The Company reserved $0.3 million at December 31, 2019 and December 31, 2018, respectively.
- Estimated quantity losses. The Company performs an annual physical count of inventory during the fourth quarter each year. For those facilities that complete their physical inventory counts before the end of December, a reserve is established for the potential quantity losses that could occur subsequent to their physical inventory. This reserve is based upon the

most recent physical inventory results. At December 31, 2019 and December 31, 2018, the Company had $0.4 million reserved for physical inventory quantity losses.

Property, Plant and Equipment

Property, plant and equipment are stated at cost. Depreciation is provided on the straight-line method over the estimated useful life of the assets. Leasehold improvements are depreciated over the shorter of their useful lives or the remaining non-cancellable lease term, buildings are depreciated over a range of 10 years to 40 years, and machinery, fixtures and equipment are depreciated over a range of three years to 20 years. The costs of software licenses are amortized over five years using the straight-line method. The Company continually reviews the recoverability of the carrying value of long-lived assets. The Company also reviews long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of such assets may not be recoverable. When the future undiscounted cash flows of the operation to which the assets relate do not exceed the carrying value of the asset, the assets are written down to fair value.

Business Combinations

Acquisitions are accounted for using the acquisition method of accounting for business combinations. Under this method, the total consideration transferred to consummate the acquisition is allocated to the identifiable tangible and intangible assets acquired and liabilities assumed based on their respective fair values as of the closing date of the acquisition. The acquisition method of accounting requires extensive use of estimates and judgments to allocate the consideration transferred to the identifiable tangible and intangible assets acquired, if any, and liabilities assumed.

Goodwill, Intangible Assets and Deferred Charges

Goodwill, arising from the excess of purchase price over fair value of net assets of businesses acquired, is not amortized but is reviewed annually, at the reporting unit level, in the fourth quarter for impairment and whenever events or circumstances indicate that the carrying value may not be recoverable. No goodwill impairment was identified as a result of the testing procedures performed for the years ended December 31, 2019 and December 31, 2018.

Intangible assets represent the fair value of intellectual, non-physical assets resulting from business acquisitions. Deferred charges represent other intangible assets and debt issuance costs. Intangible assets are amortized over their estimated useful lives using either an accelerated or straight-line method. Deferred charges are amortized over their estimated useful lives using the straight-line method. Deferred charges are amortized over a period ranging from three to 10 years and intangible assets are amortized over a period ranging from eight to 15 years. The weighted average amortization period for the customer relationships is approximatelythirteen years.

Deferred charges and intangible assets totaled $32.6 million and $23.2 million at December 31, 2019 and December 31, 2018, respectively. Accumulated amortization of deferred charges and intangible assets as of December 31, 2019 and December 31, 2018 totaled $16.6 million and $13.0 million, respectively.

Estimated amortization expense for the next five fiscal years based on existing intangible assets, excluding deferred charges is as follows:

(in thousands)	
2020	3,238
2021	3,051
2022	2,741
2023	1,200
2024	1,043
Thereafter	4,442

The Company recorded amortization expense of $3.5 million for 2019 and $2.4 million for 2018 and 2017, respectively, which excludes amortization expense of debt issuance costs, which is reflected in the consolidated financial statements as interest expense.

Earn-Out Liability

In connection with the MUSA-Stainless acquisition on February 28, 2017, the Company is required to make quarterly earn-out payments to MUSA for a period offour years following closing, based on actual sales levels of stainless steel pipe and tube (outside diameter of 10 inches or less). The fair value of the contingent consideration was estimated by applying the Monte Carlo simulation approach using management's estimates of pounds shipped and future price per unit. Changes to the fair value of the earn-out liability are determined each quarter-end and charged to income or expense in the "Earn-Out Adjustments" line item in the Consolidated Statements of Operations and Comprehensive Income.

In connection with the MUSA-Galvanized acquisition on July 1, 2018, the Company is required to make quarterly earn-out payments to MUSA for a period offour years following closing, based on actual sales levels of galvanized pipe and tube. The fair value of the contingent consideration was estimated by applying the probability-weighted expected return method using management's estimates of pounds to be shipped and future price per unit. Changes to the fair value of the earn-out liability are determined each quarter-end and charged to income or expense in the "Earn-Out Adjustments" line item in the Consolidated Statements of Operations and Comprehensive Income.

In connection with the American Stainless acquisition on January 1, 2019, the Company is required to make quarterly earn-out payments to American Stainless for a period of three years following closing. Pursuant to the asset purchase agreement between ASTI and American Stainless, earn-out payments will equate to six and one-half percent (6.5 percent) of ASTI's revenue over the three-year earn-out period. In determining the appropriate discount rate to apply to the contingent payments, the risk associated with the functional form of the earn-out, and the credit risk associated with the payment of the earn-out were all considered. The fair value of the contingent consideration was estimated by applying the probability weighted expected return method using management's estimates of pounds to be shipped and future price per unit. Changes to the fair value of the earn-out liability are determined each quarter-end and charged to income or expense in the "Earn-Out Adjustments" line item in the Consolidated Statements of Operations and Comprehensive Income.

Revenue Recognition

Revenues are recognized when control of the promised goods or services is transferred to our customers upon shipment, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services. Substantially all of the Company's revenues are derived from contracts with customers where performance obligations are satisfied at a point-in-time. Our contracts with customers may include multiple performance obligations. For such arrangements, revenue for each performance obligation is based on its standalone selling price and revenue is recognized as each performance obligation is satisfied. The Company generally determines standalone selling prices based on the prices charged to customers using the adjusted market assessment approach or expected cost plus margin. Deferred revenues are recorded when cash payments are received in advance of satisfying the performance obligation, including amounts which are refundable.

Shipping Costs

Shipping costs of approximately $10.9 million, $9.8 million and $7.5 million in 2019, 2018 and 2017, respectively, are recorded in cost of goods sold.

Research and Development Expenses

The Company incurred research and development expense of approximately $0.6 million, $0.5 million and $0.6 million in 2019, 2018 and 2017, respectively.

Stock-Based compensation

Share-based payments to employees, including grants of employee stock options, are recognized in the Consolidated Statements of Operations as compensation expense (based on their estimated fair values at grant date) generally over the vesting period of the awards using the straight-line method. Any forfeitures of stock-based awards are recorded as they occur. See Note 7 for disclosures related to stock-based compensation.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing accounts and their respective tax basis and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets unless it is more likely than not that such assets will be realized.

Additionally, the Company maintains reserves for uncertain tax provisions, if necessary.

Earnings Per Share of Common Stock

Earnings per share of common stock are computed based on the weighted average number of basic and diluted shares outstanding during each period.

Fair Market Value

The Company makes estimates of fair value in accounting for certain transactions, in testing and measuring impairment and in providing disclosures of fair value in its consolidated financial statements. The Company determines the fair values of its financial instruments for disclosure purposes by maximizing the use of observable inputs and minimizing the use of unobservable inputs when measuring fair value. Fair value disclosures for assets and liabilities are grouped in three levels. The levels prioritize the inputs used to measure the fair value of the assets or liabilities. These levels are:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 - Inputs other than quoted prices that are observable for assets and liabilities, either directly or indirectly. These inputs include quoted prices for similar assets or liabilities in active markets or quoted prices for identical or similar assets or liabilities in markets that are less active.

Level 3 - Unobservable inputs that are supported by little or no market activity for assets or liabilities and includes certain pricing models, discounted cash flow methodologies and similar techniques.

Estimates of fair value using levels 2 and 3 may require judgments as to the timing and amount of cash flows, discount rates, and other factors requiring significant judgment, and the outcomes may vary widely depending on the selection of these assumptions. The Company's most significant fair value estimates as of December 31, 2019 and December 31, 2018 relate to the purchase price allocation relating to the 2019 American Stainless, 2018 MUSA-Galvanized, and 2017 MUSA-Stainless acquisitions, earn-out liabilities, estimating the fair value of the reporting units in testing goodwill for impairment, estimating the fair value of the interest rate swap, and providing disclosures of the fair values of financial instruments.

Leases

The Company determines whether an arrangement is a lease at contract inception. For leases in which the Company is the lessee, the Company recognizes a right-of-use asset and corresponding lease liability on the accompanying Consolidated Balance Sheets equal to the present value of the fixed lease payments over the lease term. Leases with an initial term of 12 months or less are not recorded on the Consolidated Balance Sheets. Lease liabilities represent an obligation to make lease payments arising from a lease while right-of-use assets represent a right to use an underlying asset during the lease term. As the Company's leases generally do not have a readily determinable implicit rate, the Company uses its incremental borrowing rate to determine the present value of fixed lease payments based on information available at the lease commencement date.

Use of Estimates

The preparation of the consolidated financial statements requires management to make estimates and assumptions, primarily for testing goodwill for impairment, determining balances for the earn-out liabilities, estimating fair value of identifiable assets acquired and liabilities assumed as a result of business acquisitions and for establishing reserves on accounts receivable, inventories and environmental issues, that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist principally of cash deposits and trade accounts receivable.

Recent accounting pronouncements

Recently Issued Accounting Standards - Adopted

In February 2016, the FASB issued ASU No. 2016-02 *"Leases (Topic 842)"*, as amended, which generally requires lessees to recognize operating and financing lease liabilities and corresponding right-of-use assets on the balance sheet and to provide enhanced disclosures surrounding the amount, timing and uncertainty of cash flows arising from leasing arrangements. The Company adopted the new standard as of January 1, 2019 on a modified retrospective basis, which does not require comparative periods to be restated. The Company elected the package of practical expedients permitted under the transition guidance which allowed us to carry-forward our historical lease classification, our assessment on whether a contract contains a lease, and our initial direct costs for any leases that exist prior to adoption of the new standard. The Company did not elect the hindsight practical expedient to determine the reasonably certain lease term for existing leases. The Company also elected to combine lease and non-lease components and elected the short-term lease recognition exemption for all leases that qualified. On adoption, we recognized additional operating lease liabilities of $33.1 million based on the present value of the remaining minimum rental payments as of January 1, 2019. We additionally recognized corresponding right-of-use assets for operating leases totaling $32.2 million. On January 1, 2019, the Company also recorded cumulative-effect increases to equity and deferred tax assets totaling $4.6 million and $1.3 million, respectively, related to a deferred gain for a sale leaseback transaction that occurred in 2016 and was being amortized into earnings under the prior accounting. The adoption of this standard did not have a material impact on the consolidated statement of operations or cash flows for the year ended December 31, 2019. See Note 10 for further information related to the Company's leases.

In May 2014, the FASB issued ASU No. 2014-09 *"Revenue from Contracts with Customers (Topic 606)."* Topic 606 supersedes the revenue recognition requirements in *Topic 605 "Revenue Recognition (Topic 605),"* and requires entities to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The Company adopted Topic 606 as of January 1, 2018 using the modified retrospective transition method. The adoption of this standard did not have a material effect on the Company's consolidated financial statements. See Note 17 for further details.

Recently Issued Accounting Standards - Not Yet Adopted

In June 2016, the FASB issued ASU No. 2016-13 *"Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments."* The updated guidance amends the current accounting guidance and requires the measurement of all expected losses based on historical experience, current conditions, and reasonable and supportable forecasts rather than the incurred loss model which reflects losses that are probable. The updated guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019, with early adoption permitted. The Company does not expect the adoption of this new standard to have a material impact on the consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04 *"Intangibles - Goodwill and Other: Simplifying the Test for Goodwill Impairment."* The updated guidance eliminated step two of the goodwill impairment test and specifies that goodwill impairment should be measured by comparing the fair value of a reporting unit with its carrying amount. Additionally, the amount of goodwill allocated to a reporting unit with a zero or negative carrying amount of net assets should be disclosed. The updated guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019, with early adoption permitted. The Company does not expect the adoption of this new standard to have a material impact on the consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13 *"Fair Value Measurement (Topic 820): Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement."* The updated guidance improves the disclosure requirements on fair value measurements. The updated guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted for any removed or modified disclosures. The Company does not expect the adoption of this new standard to have a material impact on the consolidated financial statements or footnote disclosures.

In December 2019, the FASB issued ASU No. 2018-12 *"Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes."* This ASU removes certain exceptions for recognizing deferred taxes for investments, performing intraperiod allocation, and calculating income taxes in interim periods. This ASU also adds guidance to reduce complexity in certain areas, including recognizing deferred taxes for goodwill and allocating taxes to members of a consolidated group. The updated guidance is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020 with early adoption permitted. The Company is currently assessing the impact that adopting this new standard will have on its condensed consolidated financial statements and footnote disclosures.

Note 2: Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. To measure fair value, we use a three-tier valuation hierarchy based upon observable and non-observable inputs:

Level 1 - Unadjusted quoted prices that are available in active markets for identical assets or liabilities at the measurement date.

Level 2 - Significant other observable inputs available at the measurement date, other than quoted prices included in Level 1, either directly or indirectly, including:

- Quoted prices for similar assets or liabilities in active markets;
- Quoted prices for identical or similar assets or liabilities in non-active markets;
- Inputs other than quoted prices that are observable for the asset or liability; and
- Inputs that are derived principally from or corroborated by other observable market data.

Level 3 - Significant unobservable inputs that cannot be corroborated by observable market data and reflect the use of significant management judgment. These values are generally determined using model-based techniques, including option pricing models, discounted cash flow models, probability weighted models, and Monte Carlo simulations.

The Company's financial instruments include cash and cash equivalents, accounts receivable, derivative instruments, accounts payable, earn-out liabilities, revolving line of credit and equity investments.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The fair value hierarchy requires the use of observable market data when available. In instances where the inputs used to measure fair value fall into different levels of the fair value hierarchy, the fair value measurement has been determined on the lowest level input that is significant to the fair value measurement in its entirety. Our assessment of the significance of a particular item to the fair value measurement in its entirety requires judgment, including the consideration of inputs specific to the asset or liability.

Level 1: Equity securities

The fair value of equity securities held by the Company as ofDecember 31, 2019 and December 31, 2018 was $4.3 million and $2.9 million, respectively, and is included in "Prepaid expenses and other current assets" on the accompanying Consolidated Balance Sheets.

Level 2: Derivative instruments

The Company had one interest rate swap contract, which is classified as a Level 2 financial instrument as it is not actively traded and is valued using pricing models that use observable inputs. The fair value of the interest swap contract entered into on August 21, 2012 was an asset of $6,088 and $0.1 million at December 31, 2019 and December 31, 2018, respectively. The interest rate swap was priced using discounted cash flow techniques. Changes in its fair value were recorded to other income (expense) with corresponding offsetting entries to current assets or liabilities, as appropriate. Significant inputs to the discounted cash flow model include projected future cash flows based on projected one-month LIBOR and the average margin for companies with similar credit ratings and similar maturities. See Note 14 for for further discussion of the interest rate swap.

Level 3: Contingent consideration (earn-out) liabilities

The fair value of contingent consideration liabilities ("earn-out") resulting from the 2017 MUSA-Stainless acquisition, 2018 MUSA-Galvanized acquisition, and 2019 American Stainless acquisition are classified as Level 3. The fair value of the MUSA-Stainless earn-out was estimated by applying the Monte Carlo Simulation approach using management's projection of pounds to be shipped and future price per unit. The fair value of the MUSA-Galvanized earn-out was estimated by applying the probability-weighted expected return method, using management's projection of pounds to be shipped and future price per unit. The fair value of the American Stainless earn-out was estimated by applying the probability-weighted expected return method using management's estimates of pounds to be shipped and future price per unit. Each quarter-end, the Company re-evaluates its assumptions for all earn-out liabilities and adjusts to reflect the updated fair values. Changes in the estimated fair value of the earn-out liabilities are reflected in the results of operations in the periods in which they are identified. Changes in the fair value of the earn-out liabilities may materially impact and cause volatility in the Company's operating results.

The following table presents a summary of changes in fair value of the Company's Level 3 earn-out liabilities measured on a recurring basis for2019 and 2018:

(in thousands)	MUSA-Stainless	MUSA-Galvanized	American Stainless	Total
Balance at December 31, 2017	$ 4,834	$ —	$ —	$ 4,834
Fair value of the earn-out liability associated with the MUSA-Galvanized acquisition	—	3,800	—	$ 3,800
Earn-out payments during the period	(2,164)	(291)	—	$ (2,455)
Changes in fair value during the period	1,582	(151)	—	$ 1,431
Balance at December 31, 2018	$ 4,252	$ 3,358	$ —	$ 7,610
Fair value of the earn-out liability associated with the American Stainless (ASTI) acquisition	—	—	6,366	$ 6,366
Earn-out payments during period	(1,634)	(712)	(1,729)	$ (4,075)
Changes in fair value during the period	(215)	(864)	332	$ (747)
Balance at December 31, 2019	$ 2,403	$ 1,782	$ 4,969	$ 9,154

Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis

The Company's only significant measurements of assets and liabilities at fair value on a non-recurring basis subsequent to their initial recognition were certain acquisition related assets and liabilities as of December 31, 2019 and December 31, 2018, respectively.

Customer List Intangible Asset

During the second quarter of 2019, management revised the initial estimate of the fair value of the customer list intangible asset acquired during the American Stainless acquisition, resulting in a decrease to the customer list intangible asset of $0.5 million (see Note 15 to the consolidated financial statements for additional information regarding this fair value measurement).

In the fourth quarter of 2018, management adjusted the fair value of the customer list intangible asset acquired during the MUSA-Galvanized acquisition by$0.3 million (see Note 15 to the consolidated financial statements for additional information regarding this fair value measurement).

Contingent consideration (earn-out) liabilities

During the second quarter of 2019, management revised the initial estimate of the fair value of the contingent consideration (earn-out) liability from the American Stainless acquisition, resulting in an increase to the earn-out liability of $0.2 million (see Note 15 to the consolidated financial statements for additional information regarding this fair value measurement).

Fair Value of Financial Instruments

For short-term instruments, other than those required to be reported at fair value on a recurring and non-recurring basis and for which disclosures are included above, management concluded the historical carrying value is a reasonable estimate of the fair value because of the short period of time between origination of such instruments and their expected realization. Therefore, as of December 31, 2019 and December 31, 2018, the carrying amount for cash and cash equivalents, accounts receivable, accounts payable, and the Company's revolving line of credit, which is based on a variable rate, approximates fair value.

There were no transfers of assets or liabilities between Level 1, Level 2 and Level 3 or changes in the fair value methodologies used by the Company in the years ended December 31, 2019 or December 31, 2018.

Note 3: Property, Plant and Equipment

Property, plant and equipment consist of the following:

(in thousands)	2019	2018
Land	$ 63	$ 63
Leasehold improvements	1,921	1,163
Buildings	214	412
Machinery, fixtures and equipment	100,300	92,931
Construction-in-progress	2,999	3,644
	105,497	98,213
Less accumulated depreciation	64,807	57,288
Property, plant and equipment, net	$ 40,690	$ 40,925

The Company recorded depreciation expense of $7.6 million, $6.4 million, and $5.3 million for 2019, 2018 and 2017, respectively.

Note 4: Goodwill

Changes in the carrying amount of goodwill by segment for the year ended December 31, 2019 and December 31, 2018 are as follows:

(in thousands)	Specialty Chemicals Segment	Metals Segment	Total
Balance at December 31, 2017	$ 1,355	$ 4,649	$ 6,004
MUSA-Galvanized Acquisition	—	3,796	3,796
Balance at December 31, 2018	$ 1,355	$ 8,445	$ 9,800
American Stainless Acquisition	—	7,758	7,758
Balance December 31, 2019	$ 1,355	$ 16,203	$ 17,558

Note 5: Long-term Debt

(in thousands)	2019	2018
$100 million Revolving line of credit, due December 20, 2021	$ 59,221	$ 76,405
$20 million Term loan, due January 1, 2024	$ 16,333	$ —
	$ 75,554	$ 76,405

On August 31, 2016, the Company amended its Credit Agreement with its bank to create a new credit facility in the form of an asset-based revolving line of credit (the "Line") in the amount of $45 million. The Line was used to refinance and consolidate all previous debt agreements. Interest on the Line was calculated using the One Month LIBOR Rate (as defined in the Credit Agreement), plus a pre-defined spread. Borrowings under the Line were limited to an amount equal to a Borrowing Base calculation (as defined in the Credit Agreement) that includes eligible accounts receivable and inventory.

Pursuant to the Credit Agreement, the Company was required to pledge all of its tangible and intangible assets, including the stock and membership interests of its subsidiaries. In the Credit Agreement, the Company's bank agreed to release its liens on the real estate properties covered by the Purchase and Sale Agreement with Store Funding, as described in Note 10.

On October 30, 2017, the Company amended its Credit Agreement with its bank to increase the limit of the Line by $20 million to a maximum of $65 million and extended the maturity date. None of the other provisions of the Credit Agreement were changed as a result of this amendment.

On June 29, 2018, the Company amended its Credit Agreement with its bank to increase the limit of the Line by $15 million to a maximum of $80 million. As a result of the amendment, the interest rate on the Line is now calculated using One Month LIBOR plus a spread of 1.65 percent. None of the other provisions of the Credit Agreement were changed as a result of this amendment.

On December 20, 2018, the Company amended its Credit Agreement with its bank to refinance and increase its Line from $80 million to $100 million and to create a new 5-year term loan in the principal amount of $20 million (the "Term Loan"). The Term Loan was used to finance the American Stainless acquisition (see Note 15). The Term Loan's maturity date is February 1, 2024 and shall be repaid in 60 consecutive monthly installments. Interest on the Term Loan is calculated using the One Month LIBOR Rate (as defined in the Credit Agreement), plus 1.90 percent. The Line will be used for working capital needs and as a source for funding future acquisitions. The maturity date has been extended to December 20, 2021. Interest on the Line remains unchanged and is calculated using the One Month LIBOR Rate, plus 1.65 percent. Borrowings under the Line are limited to an amount equal to a Borrowing Base calculation that includes eligible accounts receivable and inventory.

Covenants under the Credit Agreement include maintaining a minimum fixed charge coverage ratio, maintaining a minimum tangible net worth, and a limitation on the Company's maximum amount of capital expenditures per year, which is in line with currently projected needs. The Company evaluated this transaction and determined the restructuring should be accounted for as a debt modification. The Company incurred lender and third-party costs associated with the debt restructuring that were capitalized on the balance sheet in non-current assets. At December 31, 2019, the Company was in compliance with all debt covenants.

The Line interest rate was 3.50 percent and 4.19 percent at December 31, 2019 and December 31, 2018, respectively. Additionally, the Company is required to pay a fee equal to 0.15 percent on the average daily unused amount of the Line on a quarterly basis. As of December 31, 2019, the amount available for borrowing under the Line was $72.6 million of which $59.2 million was borrowed, leaving $13.4 million of availability. Average Line borrowings outstanding during fiscal 2019 and 2018 were $69.1 million and $49.0 million with weighted average interest rates of 5.52 percent and 4.51 percent, respectively.

The term loan interest rate was 3.69 percent at December 31, 2019. As of December 31, 2019, the Company had outstanding borrowings against the term loan of $16.3 million.

The Company made interest payments on all credit facilities of $3.5 million in 2019, $1.7 million in 2018 and $0.9 million in 2017.

Principal payments on long-term debt during the next five fiscal years and thereafter are as follows (in thousands):

2020	4,000
2021	63,221
2022	4,000
2023	4,000
2024	333
Thereafter	—

Note 6: Accrued Expenses

Accrued expenses consist of the following:

(in thousands)	2019	2018
Salaries, wages, and commissions	2,972	5,208
Taxes, other than income taxes	406	852
Current portion of earn-out liability	5,576	2,907
Advances from customers	153	178
Insurance	578	321
Professional fees	265	256
Warranty reserve	11	38
Benefit plans	242	266
Insurance financing liability	668	347
Current portion, capital lease obligation	39	267
Customer rebate liability	275	701
Current portion, deferred gain sale-leaseback	—	334
Other accrued items	428	488
Total accrued expenses	$ 11,613	$ 12,163

Note 7: Stock-Based Compensation

Overview of Stock-Based Compensation Plans

The Company has a number of active equity incentive plans under which the Company has been authorized to grant share-based awards to key employees and non-employee directors. A total of 500,000 shares have been previously authorized for grant to key employees and non-employee directors. As of December 31, 2019, there were 215,823 shares remaining available for grants under the currently active equity incentive plans.

The Company recognized stock-based compensation expense within SG&A expense on the consolidated statement of earnings of $2.1 million, $0.8 million, and $0.6 million in 2019, 2018, and 2017, respectively. The associated income tax benefit recognized was $0.4 million for 2019, and $0.2 million for 2018 and 2017, respectively.

Stock Options

2011 Long-Term Incentive Stock Option Plan

The 2011 Long-Term Incentive Stock Option Plan (the "2011 Plan") is an incentive stock option plan; therefore, there are no income tax consequences to the Company when an option is granted or exercised. The stock options will vest in 20 percent or 33 percent increments annually on a cumulative basis, beginning one year after the date of grant. In order for the options to vest, the employee must be in the continuous employment of the Company since the date of the grant. Except for death, disability, or qualifying retirement, any portion of the grant that has not vested will be forfeited upon termination of employment. Shares representing grants that have not yet vested will be held in escrow by the Company. An employee will not be entitled to any voting rights with respect to any shares not yet vested, and the shares are not transferable.

A summary of activity in the Company's stock option plans is as follows:

	Weighted Average Exercise Price	Options Outstanding	Weighted Average Contractual Term (in years)	Intrinsic Value of Options	Options Available
At December 31, 2016	$ 12.77	173,048	5.4	$ —	152,965
Exercised	$ 11.55	(25,632)		$ 78,818	
Expired	$ 15.26	(1,905)			1,905
At December 31, 2017	$ 12.96	145,511	4.6	$ 156,445	154,870
Exercised	$ 12.09	(85,440)		$ 842,742	
Expired	$ 16.01	(975)			975
At December 31, 2018	$ 14.16	59,096	4.8	$ 143,737	155,845
Exercised	$ 12.61	(3,628)			—
At December 31, 2019	$ 14.26	55,468	3.8	$ 18,331	155,845
Exercisable options	$ 14.13	51,745	3.7	$ 18,331	
Options expected to vest:				Grant Date Fair Value	
December 31, 2017	$ 14.72	25,650	6.5	$ 6.41	
Vested	$ 14.78	(15,380)		$ 6.38	
Forfeited unvested options	$ 16.01	(301)			
At December 31, 2018	$ 15.83	9,969	6.0	$ 6.44	
Vested	$ 15.72	(6,246)		$ 6.46	
At December 31, 2019	$ 16.01	3,723	5.1	$ 6.11	

The following table summarizes information about stock options outstanding atDecember 31, 2019:

	Outstanding Stock Options			Exercisable Stock Options	
		Weighted Average			
Range of Exercise Prices	**Shares**	**Exercise Price**	**Remaining Contractual Life in Years**	**Shares**	**Weighted Average Exercise Price**
$ 11.35	11,713	$ 11.35	2.10	11,713	$ 11.35
$ 13.70	13,994	$ 13.70	3.10	13,994	$ 13.70
$ 14.76	8,109	$ 14.76	4.14	8,109	$ 14.76
$ 16.01	21,652	$ 16.01	5.11	17,929	$ 16.01
	55,468			51,745	

In 2019 and 2018, options for 3,628 and 85,440 shares, respectively, were exercised by employees and directors for an aggregate exercise price of $45,734 and $1.0 million, respectively.

At the 2019, 2018 and 2017 respective year ends, options to purchase 51,745, 49,127 and 119,861 shares, respectively, with weighted average exercise prices of $14.13, $13.82 and $12.45, respectively, were fully exercisable.

Compensation cost charged against income before taxes for the options was approximately $31,186 for 2019, $46,529 for 2018 and $80,966 for 2017. As of December 31, 2019, there was $2,261 of unrecognized compensation cost related to unvested stock options granted under the Company's stock option plans. The weighted average period over which the stock option compensation cost is expected to be recognized is 0.11 years.

Restricted Stock Awards

2005 Stock Awards Plan

The Compensation & Long-Term Incentive Committee ("Compensation Committee") of the Board of Directors of the Company approved stock grants under the Company's 2005 Stock Awards Plan to certain management employees of the Company. The stock grants will vest in 20 percent or 33 percent increments annually on a cumulative basis, beginning one year after the date of grant. In order for the grants to vest, the employee must be in the continuous employment of the Company since the date of the grant. Any portion of the grant that has not vested will be forfeited upon termination of employment. Shares representing grants that have not yet vested will be held in escrow by the Company. An employee will not be entitled to any voting rights with respect to any shares not yet vested, and the shares are not transferable.

2015 Stock Awards Plan

The 2015 Stock Awards Plan was approved by the Compensation Committee and authorizes the issuance of up to 250,000 shares which can be awarded for a period of 10 years from the effective date of the plan. Prior to May 9, 2017, as discussed below, the stock awards vest in 20 percent increments annually on a cumulative basis, beginning one year after the date of grant from shares held in treasury with the Company. In order for the awards to vest, the employee must be in the continuous employment of the Company since the date of the award. Except for death, disability, or qualifying retirement, any portion of an award that has not vested is forfeited upon termination of employment. The Company may terminate any portion of the award that has not vested upon an employee's failure to comply with all conditions of the award or the 2015 Stock Awards Plan. An employee is not entitled to any voting rights with respect to any shares not yet vested, and the shares are not transferable.

On February 8, 2017, the Compensation Committee approved stock grants under the Company's 2015 Stock Awards Plan to certain management employees of the Company where 44,687 shares with a market price of $12.30 per share were granted under the Plan.

Effective May 1, 2017, the Company's Board of Directors approved the First Amendment to the 2015 Stock Awards Plan. The amendment grants the Compensation Committee the authority to establish and amend vesting schedules for stock awards made pursuant to the 2015 Stock Awards Plan. On May 9, 2017, the Committee approved the amendment of the vesting schedules for the May 5, 2016 and February 8, 2017 stock grants reducing the vesting period from five years to three years. As a result of this amendment, compensation expense increased in 2017 by $75,756 and $67,180, for the five employees receiving grants on May 5, 2016 and eight employees receiving grants on February 8, 2017, respectively.

On February 7, 2018, the Compensation Committee approved stock grants under the Company's 2015 Stock Awards Plan to certain management employees of the Company where 65,527 shares with a market price of $12.47 per share were granted under the Plan.

These stock awards vest in either 20 percent or 33 percent increments annually on a cumulative basis, beginning one year after the date of grant.

On February 6, 2019, the Compensation Committee approved stock grants under the Company's 2015 Stock Awards Plan to certain management employees of the Company where 44,949 shares with a market price of $15.72 per share were granted under the Plan. These stock awards vest in either 20 percent or 33 percent increments annually on a cumulative basis, beginning one year after the date of grant.

On May 17, 2018, a majority of the shareholders of the Company, upon the recommendation of the Company's Board of Directors, voted to amend and restate the 2015 Stock Awards Plan to increase the authorization of issuances from 250,000 shares to 500,000 shares.

A summary of plan activity for the 2005 and 2015 Stock Awards Plans is as follows:

	Shares	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2016	121,302	$ 10.03
Granted February 8, 2017	44,687	$ 12.30
Vested	(34,322)	$ 10.45
Outstanding at December 31, 2017	131,667	$ 10.69
Granted February 7, 2018	65,527	$ 12.47
Vested	(51,775)	$ 10.84
Forfeited	(3,245)	$ 10.96
Outstanding at December 31, 2018	142,174	$ 11.45
Granted February 6, 2019	44,949	$ 15.72
Vested	(84,734)	$ 11.76
Forfeited	(1,614)	$ 12.44
Outstanding at December 31, 2019	100,775	$ 13.28

Compensation expense on the grants issued is charged against earnings equally before forfeitures, if any, with the offset recorded in Shareholders' Equity. Compensation cost charged against income for the awards was approximately $1.4 million for 2019, $0.8 million, for 2018 and $0.6 million for 2017. As of December 31, 2019, there was $0.8 million of total unrecognized compensation cost related to unvested stock grants under the Company's Stock Awards Plan. The weighted average period over which the stock grant compensation cost is expected to be recognized is 2.11 years.

Performance-Based Restricted Stock Awards

The Company issues performance-based restricted stock classified as equity awards. Expense is recognized on a straight-line method over the requisite service period, based on the probability of achieving the performance condition, with changes in expectations recognized as an adjustment to earnings in the period of change. Compensation cost is not recognized for performance-based restricted stock awards that do not vest because service or performance conditions are not satisfied and any previously recognized compensation cost is reversed. Performance-based restricted stock awards do not have dividend rights. The Company recognized forfeitures as they occur.

The Company's performance-based restricted stock awards are classified as equity and contain performance and service conditions that must be satisfied for an employee to earn the right to benefit from the award. The performance condition is based on the achievement of the Company's EBITDA targets. The fair value of the performance-based restricted stock awards are determined based on the closing market price of our stock on the date of grant.

In general, 0% to 150% of the Company's performance-based restricted stock awards vest at the end of a three year service period from the date of grant based upon achievement of the specified performance condition.

The total fair value of performance-based restricted stock awards vesting was approximately $0.4 million in 2019. There were no performance-based restricted stock awards that vested in 2018 or 2017, respectively.

A summary of the status of our non-vested performance-based restricted stock awards atDecember 31, 2019, and changes during fiscal 2019, were as follows:

	Units[1]	Weighted-Average Grant Date Fair Value	
Outstanding at December 31, 2018	100,037	$	10.56
Granted	35,887	$	15.72
Vested[2]	(57,938)	$	9.58
Forfeited/Canceled	—	$	—
Non-vested at December 31, 2019	77,986	$	13.66

(1)The number of units presented is based on achieving the targeted performance goals as defined in the performance award agreement. As of December 31, 2019, the maximum number of non-vested shares under the provisions of the agreement was 116,979.

(2) Excludes the vesting of an additional 4,284 shares due to performance conditions of the awards exceeding target.

At December 31, 2019, there was $0.2 million of unrecognized compensation expense related to non-vested performance-based restricted stock awards that is expected to be recognized over a weighted-average period of 1.36 years.

Non-Employee Director Compensation Plan

Each year, the Company allows each non-employee director to elect to receive up to 100 percent of the director's annual retainer in restricted stock. The number of restricted shares issued is determined by the average of the high and low common stock price on the day prior to the Annual Meeting of Shareholders or the date prior to the appointment to the Board for those individuals that are appointed mid-term. On May 16, 2019, May 17, 2018 and May 18, 2017, non-employee directors received an aggregate of 15,909, 14,857 and 24,209 shares, respectively, of restricted stock in lieu of total retainer fees of$304,000, $276,000 and $287,500, respectively. The shares granted to the directors are not registered under the Securities Act of 1933 and are subject to forfeiture in whole or in part upon the occurrence of certain events.

Note 8: Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax liabilities and assets are as follows at the respective year ends:

(in thousands)	2019	2018
Deferred income tax assets:		
Sale leaseback deferred gain	$ —	$ 1,311
Inventory valuation reserves	199	174
Inventory capitalization	1,696	1,501
Accrued bonus	497	911
State net operating loss carryforwards	1,835	1,934
Federal net operating loss carryforwards	139	—
Equity security mark to market	217	622
Straight line lease	—	231
Lease liabilities	8,945	150
Interest limitation carryforwards	754	—
Other	445	453
Total deferred income tax assets	14,727	7,287
Valuation allowance	(1,700)	(1,766)
Total net deferred income tax assets	13,027	5,521
Deferred income tax liabilities:		
Tax over book depreciation and amortization	4,859	5,121
Prepaid expenses	296	377
Lease assets	8,537	92
Interest rate swap	77	104
Other	48	80
Total deferred income tax liabilities	13,817	5,774
Deferred income taxes	$ (790)	$ (253)

Significant components of the provision for income taxes from continuing operations are as follows:

(in thousands)	2019	2018	2017
Current:			
Federal	$ (10)	$ 3,469	$ 1,067
State	57	290	107
Total current	47	3,759	1,174
Deferred:			
Federal	(833)	(108)	(1,043)
State	59	(275)	6
Total deferred	(774)	(383)	(1,037)
Total	$ (727)	$ 3,376	$ 137

The reconciliation of income tax computed at the U. S. federal statutory tax rates to income tax expense is:

	2019		2018		2017	
(in thousands)	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**
Tax at U.S. statutory rates	$ (790)	21.0 %	$ 3,459	21.0 %	$ 503	34.0 %
State income taxes, net of federal tax benefit	165	(4.4)%	269	1.6 %	66	4.4 %
State valuation allowance	(60)	1.6 %	(315)	(1.9)%	8	0.6 %
Manufacturing exemption	—	— %	—	— %	(117)	(7.9)%
Stock option compensation	(155)	4.1 %	(39)	(0.2)%	—	— %
Executive compensation limitation	57	(1.5)%	—	— %	—	— %
Other nondeductible expenses	64	(1.7)%	—	— %	—	— %
Rate change effects	—	— %	—	— %	(381)	(25.8)%
Other, net	(8)	0.2 %	2	— %	58	4.0 %
Total	$ (727)	19.3 %	$ 3,376	20.5 %	$ 137	9.3 %

Income tax payments of $1.2 million, $2.4 million and $2.6 million were made in 2019, 2018 and 2017, respectively. The Company has US Federal net operating loss carryforwards of $0.7 million and interest limitation carryforwards of $3.5 million at the end of fiscal year 2019. Such items are not subject to expiration. The Company also had state net operating loss carryforwards at the end of fiscal years 2019 and 2018 of $43.6 million and $46.5 million, respectively. The majority of these losses will expire between the years of 2020 and 2037, while various losses are not subject to expiration. A valuation allowance has been set up against $40.3 million of these state net operating loss carryforwards because it is not more likely than not that the losses will be realized in the foreseeable future. The portion of the valuation allowance for the state net operating loss carryforwards was $1.7 million at December 31, 2019 and December 31, 2018 respectively. In addition, $47,504 and $76,747 valuation allowance was established at December 31, 2019 and 2018 respectively, for other deferred tax assets. This resulted in a valuation allowance decrease of$66,744.

The Company and its subsidiaries are subject to U.S. federal income tax as well as income tax of multiple state jurisdictions. The Company is no longer subject to U.S. federal examinations for years before 2014 or state income tax examinations for years before 2014.

The Company had no uncertain tax position activity during 2019 or 2018. The Company's continuing practice is to recognize interest and/or penalties related to income tax matters in the provision for income taxes. The Company had no accruals for uncertain tax positions including interest and penalties at the end of 2019.

Note 9: Benefit Plans and Collective Bargaining Agreements

The Company has a 401(k) Employee Stock Ownership Plan (the "401(k)/ESOP Plan") covering all non-union employees. Employees could contribute to the 401(k)/ESOP Plan up to 100 percent of their wages with a maximum of $19,000 for 2019. Under the Economic Growth and Tax Relief Reconciliation Act, employees who are age 50 or older could contribute an additional $6,000 per year for a maximum of $25,000 for 2019. Contributions by the employees are invested in one or more funds at the direction of the employee; however, employee contributions cannot be invested in Company stock. For the year ended December 31, 2015, contributions by the Company were made in cash and then used by the 401(k)/ESOP Plan Trustee to purchase Company stock. Effective January 1, 2016, contributions by the Company are made in accordance with the investment elections made by each participant for his or her deferral contributions. The Company contributes on behalf of each eligible participant a matching contribution equal to a percentage determined each year by the Board of Directors. For 2019, 2018 and 2017 the maximum was 100 percent of employee contributions up to a maximum of four percent of their eligible compensation. The matching contribution is applied to the employee accounts after each payroll. Matching contributions of approximately$0.8 million, $0.7 million and $0.6 million were made for 2019, 2018 and 2017, respectively. The Company may also make a discretionary contribution, which if made, would be distributed to all eligible participants regardless of whether they contribute to the 401(k)/ESOP Plan. No discretionary contributions were made to the 401(k)/ESOP Plan in 2019, 2018 or 2017.

The Company also has a 401(k) and Profit Sharing Plan (the "Bristol Plan") covering all employees as part of the United Steel Workers of America, Local Union 4586 Collective Bargaining Agreement (the "Bristol CBA"). Employees could contribute to the Bristol Plan up to 60 percent of pretax annual compensation, as defined in the Bristol Plan, with a maximum of $19,000 for 2019. Under the Economic Growth and Tax Relief Reconciliation Act, employees who are age50 or older could contribute an additional $6,000 per year for a maximum of $25,000 for 2019. The Company contributes three percent of a participant's eligible compensation for the plan year, regardless of whether the participants contribute to the Bristol Plan. The Company's contributions were $0.2 million for 2019, 2018 and 2017, respectively. Additional profit sharing amounts may also be contributed at the option of the Company's Board of Directors, which if made, would be allocated to participants based on the ratio of the participant's compensation to the total compensation of all participants eligible to participate in the Bristol Plan. No discretionary contributions were made to the Bristol Plan in2019, 2018 or 2017.

In connection with the MUSA-Stainless acquisition discussed in Note 15, the Company assumed the rights and obligations pursuant to the Collective Bargaining Agreement (the "Munhall CBA") between MUSA and the United Steel Workers of America, Local Union 5852-22 (the " Munhall Union"). As a part of this Munhall CBA, the Company assumed the obligation of participating in the Steelworkers Pension Trust, a union-sponsored multi-employer defined benefit plan (the "Munhall Plan"), which covers all the Company's eligible Munhall Union employees. The Munhall Plan has a calendar plan year. Per the most recent available annual funding notice, the plan was at least 80 percent funded for the plan year endedDecember 31, 2018. Per the terms of the Munhall CBA the Company contributes 4.25 percent of each participant's eligible compensation for the 2019 plan year. Munhall Union employees make no contributions to the Munhall Plan. The Company's contributions are less than 5 percent of total contributions to the plan based on contributions for the plan year ended December 31, 2018. The Company's contributions to the Munhall Plan totaled$0.2 million for the year ended December 31, 2019 and $0.1 million for the years ended December 31, 2018 and December 31, 2017, respectively. Additionally, as part of the Munhall CBA, members of the union are eligible to make deferral contributions to the Company's 401(k)/ESOP Plan per the plan guidelines; however they do not receive matching contributions of the 401(k)/ESOP Plan.

The Company also maintains a Collective Bargaining Agreement (the "Mineral Ridge CBA") with the United Steel Workers of America, Local Union 4564-07, which represents employees at the Specialty-Mineral Ridge facility. In connection with the Mineral Ridge CBA, the Company contributes to union-sponsored defined contribution retirement plans. Contributions relating to these plans were $28,469, $32,034 and $29,042 for 2019, 2018 and 2017, respectively.

Note 10: Leases

Adoption of ASC Topic 842, "Leases"

On January 1, 2019, the Company adopted Topic 842 using the modified retrospective method applied to leases that were in place as of January 1, 2019. Results for reporting periods beginning after January 1, 2019 are presented under Topic 842, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under Topic 840. The Company's portfolio of leases contains both finance and operating leases that relate to real estate and manufacturing equipment. Substantially all of the value of the Company's lease portfolio relates to the Master Lease with Store Master Funding XII, LLC, an affiliate of Store Capital Corporation ("Store Capital") that was entered into in 2016 and amended with the 2018 MUSA-Galvanized and 2019 American Stainless acquisitions. As of December 31, 2019, operating lease liabilities related to the master lease agreement with Store Capital totaled $36.8 million, or 97 percent of the total lease liabilities on the consolidated balance sheet.

Discount Rate

To determine the present value of minimum future lease payments for operating leases at January 1, 2019, the Company was required to estimate a rate of interest that we would have to pay to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment (the "incremental borrowing rate" or "IBR"). The Company determined the appropriate IBR by identifying a reference rate and making adjustments that take into consideration financing options and certain lease-specific circumstances. Such adjustments included assuming the Store Capital lease would require two lenders with the secondary lender being secured on a second lien requiring mezzanine rates. Based on this assessment, the Company determined that 7.32 percent was an appropriate incremental borrowing rate to apply to its portfolio of real-estate operating leases at adoption. The Company elected to utilize a single discount rate for its portfolio of operating leases because of similar lease characteristics; the resulting calculation does not differ materially from applying the standard to the individual leases.

Weighted average discount rates for operating and finance leases are as follows:

Operating Leases	7.32 %
Finance Leases	11.94 %

Balance Sheet Presentation

Operating and finance lease amounts included in the Consolidated Balance Sheet are as follows (in thousands):

Classification	Financial Statement Line Item		December 31, 2019
Assets	Right-of-use assets, operating leases	$	35,772
Assets	Property, plant and equipment, net		401
Current liabilities	Current portion of lease liabilities, operating leases		3,562
Current liabilities	Current portion of lease liabilities, finance leases		253
Non-current liabilities	Non-current portion of lease liabilities, operating leases		33,723
Non-current liabilities	Non-current portion of lease liabilities, finance leases		336

Total Lease Cost

Individual components of the total lease cost incurred by the Company are as follows:

(in thousands)		December 31, 2019
Operating lease cost	$	4,112
Finance lease cost:		
Reduction in carrying amount of right-of-use assets		175
Interest on finance lease liabilities		85
Total lease cost	$	4,372

Reduction in carrying amounts of right-of-use assets held under finance leases is included in depreciation expense. Minimum rental payments under operating leases are recognized on a straight-line method over the term of the lease including any periods of free rent and are included in selling, general, and administrative expense on the consolidated statement of operations.

Maturity of Leases

The amounts of undiscounted future minimum lease payments under leases as ofDecember 31, 2019 are as follows:

(in thousands)		Operating		Finance
2020		3,562		275
2021		3,635		316
2022		3,673		12
2023		3,563		—
2024		3,635		—
Thereafter		48,554		—
Total undiscounted minimum future lease payments		66,622		603
Imputed Interest		29,337		14
Total lease liabilities	$	37,285	$	589

Additional Information

Weighted average remaining lease terms for operating and finance leases as ofDecember 31, 2019 are as follows:

Operating Leases	16.55 years
Finance Leases	2.16 years

During the year ended December 31, 2019, right-of-use assets recognized in exchange for new operating lease liabilities totaled$4.9 million.

On January 1, 2019, the Company and Store Capital amended and restated the Master Lease, pursuant to which the Company leases the Statesville and Troutman, NC facilities, purchased by Store Capital from American Stainless on January 1, 2019, for the remainder of the initial term of 20 years set forth in the Master Lease, withtwo renewal options of 10 years each. Because the Company is not reasonably certain to exercise these renewal options, the options are not considered in determining the lease term and associated potential option payments are excluded from lease payments. The Master Lease includes a rent escalator equal to the lesser of 1.25 times the percentage increase in the Consumer Price Index since the previous increase or 2 percent.

Undiscounted future minimum lease payments under non-cancellable operating and capital leases as of December 31, 2018 accounted for under ASC 840 "*Leases"* were as follows:

(in thousands)	Operating	Capital
2019	$ 3,207	$ 354
2020	3,244	358
2021	3,239	347
2022	3,225	18
2023	3,103	—
Thereafter	45,337	—
Total undiscounted minimum future operating lease payments		1,077
Imputed Interest		165
Total lease liabilities recorded as of December 31, 2018		$ 912

Rent expense related to operating leases was $4.0 million and $3.3 million in 2018 and 2017, respectively.

Note 11: Commitments and Contingencies

Management is not currently aware of any asserted or unasserted matters which could have a significant effect on the financial condition or results of operations of the Company.

Note 12: (Loss)/Earnings Per Share

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

(in thousands, except per share data)	2019	2018	2017
Numerator:			
Net (loss) income	$ (3,036)	$ 13,097	$ 1,341
Denominator:			
Denominator for basic earnings per share - weighted average shares	8,983	8,806	8,705
Effect of dilutive securities:			
Employee stock options and stock grants	—	72	23
Denominator for diluted earnings per share - weighted average shares	8,983	8,878	8,728
Net (loss) earnings per share:			
Basic	$ (0.34)	$ 1.49	$ 0.15
Diluted	$ (0.34)	$ 1.48	$ 0.15

The diluted earnings per share calculations exclude the effect of potentially dilutive shares when the inclusion of those shares in the calculation would have an anti-dilutive effect. The Company had weighted average shares of common stock of 300 in 2019, 600 in 2018 and 86,524 in 2017, which were not included in the diluted earnings per share calculation as their effect was anti-dilutive.

Note 13: Industry Segments

The Company's business is divided into two operating segments: Metals and Specialty Chemicals. The Company identifies such segments based on products and services, long-term financial performance and end markets targeted. The Metals Segment operates as three reporting units including Welded Pipe & Tube Operations, a unit that includes Bristol Metals, LLC ("BRISMET") and American Stainless Tubing, LLC ("ASTI"), Palmer of Texas Tanks, Inc. ("Palmer"), and Specialty Pipe & Tube, Inc. ("Specialty").Welded Pipe & Tube Operations manufactures pipe and tube from stainless steel, galvanized, ornamental stainless steel tubing, and other alloy pipe and tube. Palmer manufactures liquid storage solutions and separation equipment. Specialty is a master distributor of seamless carbon pipe and tube. The Metals Segment's markets include the oil and gas, chemical, petrochemical, pulp and paper, mining, power generation (including nuclear), water and waste water treatment, liquid natural gas ("LNG"), brewery, food processing, petroleum, pharmaceutical, automotive & commercial transportation, appliance, architectural, and other heavy industries. The Specialty Chemicals Segment operates as one reporting unit which includes Manufacturers Chemicals, LLC ("MC"), a wholly-owned subsidiary of Manufacturers Soap and Chemical Company ("MS&C"), and CRI Tolling, LLC ("CRI Tolling"). The Specialty Chemicals Segment produces specialty chemicals for the chemical, paper, metals, mining, agricultural, fiber, paint, textile, automotive, petroleum, cosmetics, mattress, furniture, janitorial and other industries. MC manufactures lubricants, surfactants, defoamers, reaction intermediaries and sulfated fats and oils. CRI Tolling provides chemical tolling manufacturing resources to global and regional chemical companies and contracts with other chemical companies to manufacture certain, pre-defined products.

The chief operating decision maker evaluates performance and determines resource allocations based on a number of factors, the primary measure being operating income (loss). The accounting policies of the segments are the same as those described in the summary of significant accounting policies.

Segment operating income is the segment's total revenue less operating expenses. Identifiable assets, all of which are located in the U.S., are those assets used in operations by each segment. Centralized data processing and accounting expenses are allocated to the two segments based upon estimates of their percentage of usage. Corporate assets consist principally of cash, certain investments and equipment.

Segment Information:

All values are for continuing operations only.

(in thousands)	2019	2018	2017
Net sales			
Metals Segment	$ 251,078	$ 222,242	$ 152,957
Specialty Chemicals Segment	54,090	58,599	48,191
	$ 305,168	$ 280,841	$ 201,148
Operating (loss) income			
Metals Segment	$ 3,692	$ 27,544	$ 5,424
Gain on sale-leaseback	—	240	240
Total Metals Segment	3,692	27,784	5,664
Specialty Chemicals Segment	2,811	3,879	4,295
Gain on sale-leaseback	—	95	95
Total Specialty Chemicals Segment	2,811	3,974	4,390
	6,503	31,758	10,054
Unallocated corporate expenses	8,357	7,878	6,513
Earn-out adjustments	(747)	1,431	689
Acquisition related costs	601	1,212	795
Operating (loss) income	(1,708)	21,237	2,057
Interest expense	3,818	2,211	985
Change in fair value of interest rate swap	141	(20)	(96)
Other income, net	(1,904)	2,573	(310)
(Loss) income before income taxes	$ (3,763)	$ 16,473	$ 1,478
Identifiable assets			
Metals Segment	$ 186,758	$ 192,196	
Specialty Chemicals Segment	25,428	28,175	
Corporate	45,011	8,028	
	$ 257,197	$ 228,399	
Depreciation and amortization			
Metals Segment	$ 9,439	$ 7,198	$ 6,281
Specialty Chemicals Segment	1,461	1,428	1,302
Corporate	164	149	155
	$ 11,064	$ 8,775	$ 7,738
Capital expenditures			
Metals Segment	$ 2,812	$ 5,969	$ 3,406
Specialty Chemicals Segment	1,157	1,298	1,650
Corporate	568	88	223
	$ 4,537	$ 7,355	$ 5,279
Sales by product group			
Specialty chemicals	$ 54,090	$ 58,599	$ 48,191
Stainless steel pipe and tube	167,907	146,237	100,254
Heavy wall seamless carbon steel pipe and tube	30,607	32,474	25,103
Fiberglass and steel liquid storage tanks and separation equipment	28,722	31,654	27,600
Galvanized pipe and tube	23,842	11,877	—
	$ 305,168	$ 280,841	$ 201,148
Geographic sales			
United States	$ 297,808	$ 273,244	$ 196,172
Elsewhere	7,360	7,597	4,976
	$ 305,168	$ 280,841	$ 201,148

Note 14: Interest Rate Swap

The Company has an interest rate swap associated with its current credit facility which effectively is expected to offset variable interest in the borrowing; hedge accounting was not utilized. The notional amount of the swap was $6.0 million and $8.25 million at December 31, 2019 and December 31, 2018, respectively. The fair value is recorded in current assets or liabilities, as appropriate, with corresponding changes to fair value recorded to other income (expense). The interest rate swap will remain in place for the remainder of the current credit facility's term. The Company recorded an asset of $6,088 and $0.1 million for the fair value of the swap at December 31, 2019 and December 31, 2018, respectively.

Note 15: Acquisitions

Acquisition of the Assets and Operations of American Stainless Tubing, Inc.

On January 1, 2019, ASTI completed the American Stainless acquisition. The purchase price for the all-cash acquisition was $21.9 million, subject to a post-closing working capital adjustment. The Company funded the acquisition with a new five-year $20 million term note and a draw against asset-based line of credit (see Note 5).

The transaction is accounted for using the acquisition method of accounting for business combinations. Under this method, the total consideration transferred to consummate the acquisition is allocated to the identifiable tangible and intangible assets acquired and liabilities assumed based on their respective fair values as of the closing date of the acquisition. The acquisition method of accounting requires extensive use of estimates and judgments to allocate the consideration transferred to the identifiable tangible and intangible assets acquired and liabilities assumed. During the third quarter of 2019, the Company finalized the purchase price allocation for the American Stainless acquisition.

The excess of the consideration transferred over the fair value of the net tangible and identifiable intangible assets is reflected as goodwill. Goodwill consists of manufacturing cost synergies expected from combining American Stainless' production capabilities with the Metals Segment current operations. All of the goodwill recognized was assigned to the Company's Metals Segment and is expected to be deductible for income tax purposes.

American Stainless will receive quarterly earn-out payments for a period of three years following closing. Pursuant to the asset purchase agreement between ASTI and American Stainless, earn-out payments will equate to six and one-half percent (6.5 percent) of ASTI's revenue over the three-year earn-out period. In determining the appropriate discount rate to apply to the contingent payments, the risk associated with the functional form of the earn-out, and the credit risk associated with the payment of the earn-out were all considered. The fair value of the contingent consideration was estimated by applying the probability weighted expected return method using management's estimates of pounds to be shipped and future price per unit.

During the second quarter of 2019, management identified circumstances that existed on the date of acquisition and as a result, revised the purchase price allocation of certain acquired assets and liabilities as allowable during the measurement period.

The following table shows the initial estimate of value and revisions made during 2019:

(in thousands)	Initial estimate	Revisions	Final
Inventories	$ 5,564	$ —	$ 5,564
Accounts receivable	3,534	—	3,534
Other current assets - production and maintenance supplies	605	—	605
Property, plant and equipment	2,793	—	2,793
Customer list intangible	10,000	(496)	9,504
Goodwill	7,044	714	7,758
Contingent consideration (earn-out liability)	(6,148)	(218)	(6,366)
Accounts payable	(1,400)	—	(1,400)
Other liabilities	(97)	—	(97)
	$ 21,895	$ —	$ 21,895

ASTI's results of operations since acquisition are reflected in the Company's consolidated statements of operations as follows:

(in thousands)		**2019**
Net sales	$	34,477
Income before income taxes		2,690

For the year ended December 31, 2019, cost of sales included $1.1 million representing the fair value above predecessor cost associated with acquired inventory that was sold during the year ended December 31, 2019.

The following unaudited pro-forma information is provided to present a summary of the combined results of the Company's operations with ASTI as if the acquisition had occurred on January 1, 2018. The unaudited pro-forma financial information is for information purposes only and is not necessarily indicative of what the results would have been had the acquisition been completed on the date indicated above.

Pro-Forma (Unaudited)

(in thousands, except per share data)		**2018**
Pro-forma net sales	$	316,734
Pro-forma net income	$	13,420
Earnings per share:		
Basic	$	1.52
Diluted	$	1.51

Pro-forma net income was reduced for the following:

- Amortization of American Stainless' customer list intangible of $1.2 million for the year ended December 31, 2018 ;
- Additional rent expense related to the Company's lease of American Stainless' real estate from Store Capital of $0.5 million for the year ended December 31, 2018;
- An estimated amount of interest expense associated with the additional borrowings to fund the American Stainless acquisition of $0.8 million for the year ended December 31, 2018;
- Depreciation of $0.2 million for the year ended December 31, 2018, related to the incremental fair value above historical cost for acquired property, plant and equipment; and
- An increase in the provision for income taxes of $0.1 million for the year ended December 31, 2018 related to the impact of the other pro-forma adjustments and American Stainless' previous status as a pass-through entity for income tax purposes prior to the acquisition.

Acquisition of the Galvanized Pipe and Tube Assets of Marcegaglia USA, Inc.

On July 1, 2018, BRISMET completed the MUSA-Galvanized acquisition. The purpose of the transaction was to enhance the Company's on-going business with additional capacity and technological advantages. The transaction was funded through an increase to the Company's current credit facility (refer to Note 5). The purchase price for the transaction totaled $10.4 million. The tangible assets purchased and liabilities assumed from MUSA include accounts receivable, inventory, equipment, and accounts payable.

MUSA will receive quarterly earn-out payments for a period of four years following closing. Earn-out payments will equate to three percent of BRISMET's galvanized steel pipe and tube revenue. As of July 1, 2018, the Company forecasted earn-out payments to be $4.2 million, for which the Company established a fair value of $3.8 million using a probability-weighted expected return method and a discount rate applicable to future revenue of five percent. In determining the appropriate discount rate to apply to the contingent payments, the risk associated with the functional form of the earn-out, and the credit risk associated with the payment of the earn-out were all considered. The fair value of the contingent consideration was estimated by applying the probability-weighted expected return method using management's estimates of pounds to be shipped and future price per unit. At December 31, 2018 the fair value of the earn-out totaled $3.4 million with $1.0 million of this liability classified as a current liability because the payments will be made quarterly.

In the fourth quarter of 2018, management adjusted the fair value of the customer list intangible asset. Because this adjustment was determined within the measurement period, the customer list intangible was decreased by $0.3 million and goodwill was increased by $0.3 million. Goodwill arising from the MUSA-Galvanized transaction increased from $3.5 million to $3.8 million and the fair value of the customer list intangible asset was decreased from $1.4 million to $1.2 million. All other changes in fair value have been included as earn-out adjustments in the Company's consolidated statements of operations.

The total purchase price was allocated to the acquired net tangible and identifiable intangible assets based on their estimated fair values as of July 1, 2018. The fair value assigned to the customer list intangible is being amortized on an accelerated basis over 15 years. The excess of the consideration transferred over the fair value of the net tangible and identifiable intangible assets is reflected as goodwill. Goodwill consists of manufacturing cost synergies expected from combining Munhall-Galvanized's production capabilities with BRISMET's current operations. All of the goodwill recognized was assigned to the Company's Metals Segment and is expected to be deductible for income tax purposes. During the fourth quarter of 2018, the Company finalized the purchase price allocation for the MUSA-Galvanized acquisition.

The following table shows the initial estimate of value and revisions made during 2018:

(in thousands)	**Initial estimate**	**Revisions**	**Final**
Inventories	$ 2,746	$ —	2,746
Accounts Receivable	2,187	—	2,187
Other current assets - production and maintenance supplies	747	—	747
Property, plant and equipment	4,883	—	4,883
Customer list intangible	1,424	(251)	1,173
Goodwill	3,545	251	3,796
Earn-out Liability	(3,800)	—	(3,800)
Accounts payable	(1,051)	—	(1,051)
Other liabilities	(303)	—	(303)
	$ 10,378	$ —	$ 10,378

MUSA-Galvanized's results of operations since acquisition are reflected in the Company's consolidated statements of operations as follows:

(in thousands)	**2018**
Net sales	$ 11,877
Income before income taxes	65

The following unaudited pro-forma information is provided to present a summary of the combined results of the Company's operations with Munhall-Galvanized as if the acquisition had occurred on January 1, 2017. The unaudited pro-forma financial information is for information purposes only and is not necessarily indicative of what the results would have been had the acquisition been completed on the date indicated above.

Pro-Forma (Unaudited)

(in thousands, except per share data)	**2018**	**2017**
Pro-forma net sales	$ 292,793	$ 225,376
Pro-forma net income (loss)	$ 11,920	$ 21
Earnings (loss) per share:		
Basic	$ 1.35	n/a
Diluted	$ 1.34	n/a

The 2018 pro-forma calculation excludes non-recurring acquisition costs of $0.7 million that were incurred by the Company during 2018. Munhall-Galvanized's historical financial results were adjusted for both years to eliminate interest expense charged by the prior owner. Pro-forma net income was reduced for both years for the amount of amortization on Munhall-Galvanized's customer list intangible and an estimated amount of interest expense associated with the additional line of credit borrowings.

Acquisition of the Stainless Steel Pipe and Tube Assets of Marcegaglia USA, Inc.

On February 28, 2017, BRISMET completed the MUSA-Stainless acquisition. The Company funded the transaction through an increase to the Company's credit facility (See Note 5). The purchase price for the transaction, which excluded real estate and certain other assets, totaled $15.0 million. The assets purchased from MUSA included inventory, production and maintenance supplies and equipment less specific identified liabilities assumed. In accordance with the agreement, on December 9, 2016, BRISMET entered into an escrow agreement and deposited $3.0 million into the escrow fund. The deposit was remitted to MUSA at the close of the transaction and was reflected as a credit against the purchase price.

The transaction was accounted for using the acquisition method of accounting for business combinations. During the fourth quarter of 2017, the Company finalized the purchase price allocation for the MUSA-Stainless acquisition.

MUSA will receive quarterly earn-out payments for a period of four years following closing. Aggregate earn-out payments will be at least $3.0 million, with no maximum. Actual payouts will equate to three percent of BRISMET's incremental revenue, if any, from the amount of small diameter stainless steel pipe and tube (outside diameter of 10 inches or less) sold. At February 28, 2017, the acquisition date, the Company forecasted earn-out payments to be $4.1 million, which was discounted to a present value of $3.6 million using a discount rate applicable to future revenue offive percent. In determining the appropriate discount rate to apply to the contingent payments, the risk associated with the functional form of the earn-out, the credit risk associated with the payment of the earn-out and the methodology to quantify the earn-out were all considered. The fair value of the contingent consideration was estimated by applying the Monte Carlo simulation approach using management's estimates of pounds shipped.

In the second quarter of 2017, management adjusted the selling price used in the earn-out calculation associated with the MUSA-Stainless acquisition. Since this adjustment was determined within the measurement period, the beginning earn-out liability and goodwill were increased by $1.1 million. Goodwill related to the MUSA-Stainless acquisition increased from $3.6 million to $4.6 million and the fair value of contingent consideration was increased from$3.6 million to $4.7 million. All other changes in fair value have been included as earn-out adjustments in the Company's consolidated statements of operations.

The total purchase price was allocated to Munhall-Stainless' net tangible and identifiable intangible assets based on their estimated fair values as of February 28, 2017. The fair value assigned to the customer list intangible is being amortized on an accelerated basis over 15 years. The excess of the consideration transferred over the fair value of the net tangible and identifiable intangible assets and liabilities is reflected as goodwill. Goodwill consists of manufacturing cost synergies expected from combining laser mill capabilities acquired as part of Munhall-Stainless with BRISMET's current operations. All of the goodwill recognized was assigned to the Company's Metals Segment and is expected to be deductible for income tax purposes.

The following table shows the initial estimate of value and revisions made during 2017:

(in thousands)	Initial estimate	Revisions	Final
Inventories	$ 5,434	$ —	$ 5,434
Other current assets - production and maintenance supplies	1,548	—	1,548
Equipment	7,577	—	7,577
Customer list intangible	992	—	992
Goodwill	3,589	1,059	4,649
Earn-out liability	(3,604)	(1,059)	(4,664)
Other liabilities assumed	(583)	—	(583)
	$ 14,953	$ —	$ 14,953

Munhall-Stainless' results of operations since acquisition are reflected in the Company's consolidated statements of operations. The amount of Munhall-Stainless' revenues and operating loss included in the consolidated statements of operations for the year ended December 31, 2017 was $25.8 million and $0.2 million, respectively.

On March 1, 2017, pursuant to the terms and conditions of the MUSA-Stainless asset purchase agreement, the Company entered into a lease agreement to lease manufacturing and warehouse space at MUSA's Munhall, PA facility for $33,333 per month for the initial lease term of15 months. In February 2018, the lease was amended to extend the term of the lease for the period beginning June 1, 2018 and ending May 31, 2023 and includes escalating rent payments. The lease met the operating lease requirements and was accounted for as such in 2017.

As part of the MUSA-Galvanized acquisition that occurred on July 1, 2018, the Company amended and restated the Master Lease, effective June 29, 2018, pursuant to which the Company leased the Munhall, PA facility, purchased by Store Funding from MUSA for the remainder of the initial term of 20 years set forth in the Master Lease (see Note 10).

Note 16: Shareholders Equity

Stock Repurchase Program

On February 21, 2019, the Board of Directors authorized a stock repurchase program for up to850,000 shares of its outstanding common stock overtwenty-four months. The shares will be purchased from time to time at prevailing market prices, through open market or privately negotiated transactions, depending on market conditions. Under the program, the purchases will be funded from available working capital, and the repurchased shares will be returned to the status of authorized, but unissued shares of common stock or held in treasury. There is no guarantee as to the exact number of shares that will be repurchased by the Company, and the Company may discontinue purchases at any time that management determines additional purchases are not warranted. During the year-ended December 31, 2019 the Company did not purchase any shares under the stock repurchase program.

At the Market Offering

On August 9, 2018, the Company entered into an Equity Distribution Agreement pursuant to which the Company had the ability to issue and sell, from time to time, shares of the Company's common stock (the "Shares"), par value $1.00 per share, with aggregate gross sales proceeds of up to$10 million, through an "at-the-market" equity offering program under which BB&T Capital Markets, a division of BB&T Securities, LLC and Ladenburg Thalmann & Co. Inc. (the "Agents") were sales agents (the "ATM Program").

In 2018, the Company issued and sold44,378 shares in connection with the ATM Program, with total net proceeds of$1.0 million. The Agents received $20,470 in commission on the sales.

On November 16, 2018, the Company terminated the ATM Program. The Company has not sold any shares under the ATM Offering since September 30, 2018, and will no longer offer any shares under this program.

Dividends

At the end of each fiscal year the Board reviews the financial performance and capital needed to support future growth to determine the amount of cash dividend, if any, which is appropriate. In 2019, no dividends were declared or paid by the Company. In 2018, the Company paid a $0.25 cash dividend on December 12, 2018 for a total of $2.3 million. In 2017, the Company paid a $0.13 cash dividend totaling $1.1 million.

Note 17: Revenues

Adoption of ASC Topic 606, "Revenue from Contracts with Customers"

On January 1, 2018, the Company adopted Topic 606 using the modified retrospective method applied to those contracts which were not completed as of January 1, 2018. Results for reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under Topic 605. The Company operates as a manufacturer of various products, and revenue is comprised of short-term contracts with point-in-time performance obligations. As a result, the Company did not identify any differences in its recognition of revenue between Topic 606 and Topic 605. Accordingly, there was no adjustment required to opening retained earnings for the cumulative impact of adopting Topic 606 and no impact to revenues for the year-ended December 31, 2018 as a result of applying Topic 606.

Revenue Recognition

Revenues are recognized when control of the promised goods or services is transferred to our customers upon shipment, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services.

The following table presents the Company's revenues, disaggregated by product group. Substantially all of the Company's revenues are derived from contracts with customers where performance obligations are satisfied at a point-in-time.

	December 31,		
(in thousands)	2019	2018	2017
Fiberglass and steel liquid storage tanks and separation equipment	$ 28,722	$ 31,654	$ 27,600
Heavy wall seamless carbon steel pipe and tube	30,607	32,474	25,103
Stainless steel pipe and tube	167,907	146,237	100,254
Galvanized pipe and tube	23,842	11,877	—
Specialty chemicals	54,090	58,599	48,191
Net sales	$ 305,168	$ 280,841	$ 201,148

Arrangements with Multiple Performance Obligations

Our contracts with customers may include multiple performance obligations. For such arrangements, revenue for each performance obligation is based on its stand-alone selling price and revenue is recognized as each performance obligation is satisfied. The Company generally determines stand-alone selling prices based on the prices charged to customers using the adjusted market assessment approach or expected cost plus margin.

Deferred Revenues

Deferred revenues are recorded when cash payments are received in advance of satisfying the performance obligation, including amounts which are refundable. The deferred revenue balance decreased less than $0.1 million during 2019 to $0.2 million as of December 31, 2019 due to receiving $2.4 million in advance of satisfying our performance obligations during the period, offset by $2.4 million of revenue that was recognized during the period after satisfying the performance obligations that were included in the beginning deferred revenue balance or received during the current period. Deferred revenues are included in "Accrued expenses" on the accompanying Consolidated Balance Sheets.

Our payment terms vary by the financial strength or location of our customer and the products offered. The length of time between invoicing and when payment is due is not significant. For certain customers, payment is required before the products or services are delivered to the customer.

Practical Expedients and Election

When shipping and handling activities are performed after a customer obtains control of goods, the Company reflects shipping and handling activities as part of satisfying the obligation of providing goods to the customer. In some instances, the Company withholds various states' sales taxes upon shipments into those states. Accordingly, management makes an accounting policy election to exclude from the measurement of the transaction price all taxes assessed by a governmental authority that are imposed on and concurrent with a specific revenue-producing transaction and collected from a customer. The Company expenses sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within selling, general, and administrative expenses.

The Company does not disclose the value of unsatisfied performance obligations since contracts are expected to be completed within one year.

Note 18: Quarterly Results (Unaudited)

The following is a summary of quarterly operations for 2019 and 2018:

(in thousands, except per share data)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2019				
Net sales	$ 84,804	$ 78,778	$ 73,640	$ 67,946
Gross profit	8,684	7,838	7,288	6,963
Net (loss)	(927)	(263)	(953)	(893)
Per common share[(1)]				
Basic	(0.10)	(0.03)	(0.11)	(0.10)
Diluted	(0.10)	(0.03)	(0.11)	(0.10)
2018				
Net sales	$ 58,480	$ 71,894	$ 77,793	$ 72,674
Gross profit	11,234	15,716	14,028	10,259
Net income	3,835	3,677	5,036	549
Per common share[(1)]				
Basic	0.44	0.42	0.57	0.06
Diluted	0.44	0.41	0.56	0.06

[(1)] *Per Share amounts may not foot due to rounding.*

Note 19: Subsequent Events

On February 5, 2020 the Compensation Committee approved stock option grants under the 2011 Plan. Options for a total of 123,500 shares, with an exercise price of $12.995 per share, were granted under the 2011 Plan to certain management employees of the Company. The stock options will vest in 33 percent increments annually on a cumulative basis, beginning one year after the date of grant. In order for the options to vest, the employee must be in the continuous employment of the Company since the date of the grant. Except for death, disability, or qualifying retirement, any portion of the grant that has not vested will be forfeited upon termination of employment. The Company may terminate any portion of the grant that has not vested upon an employee's failure to comply with all conditions of the award or the 2011 Plan. Shares representing grants that have not yet vested will be held in escrow by the Company. An employee will not be entitled to any voting rights with respect to any shares not yet vested, and the shares are not transferable. The per share weighted-average fair value of this stock option grant was $4.53. The Black-Scholes model for this grant was based on a risk-free interest rate of 1.66 percent, an expected life of ten years, an expected volatility of 35.1 percent and a dividend yield of 1.79 percent. Compensation expense totaling $0.6 million will be recorded against earnings equally over the following 36 months from the date of grant with the offset recorded in Shareholders' Equity.

On February 5, 2020, the Compensation Committee approved stock grants under the Company's 2015 Stock Awards Plan to certain management employees of the Company where 45,418 shares with a market price of $12.995 per share were granted under the Plan. The stock awards vest in either 20 percent or 33 percent increments annually on a cumulative basis, beginning one year after the date of grant. In order for the awards to vest, the employee must be in the continuous employment of the Company since the date of the award. Except for death, disability, or qualifying retirement, any portion of an award that has not vested is forfeited upon termination of employment. The Company may terminate any portion of the award that has not vested upon an employee's failure to comply with all conditions of the award or the 2015 Stock Awards Plan. An employee is not entitled to any voting rights with respect to any shares not yet vested, and the shares are not transferable.

On February 5, 2020, the Compensation Committee approved performance-based restricted stock awards to certain management employees of the Company where 36,647 shares with a market price of $12.995 per share were granted under the Plan. The Company's performance-based restricted stock awards are classified as equity and contain performance and service conditions that must be satisfied for an employee to earn the right to benefit from the award. The performance condition is based on the achievement of the Company's EBITDA targets. The fair value of the performance-based restricted stock awards are determined based on the closing market price of our stock on the date of grant. In general, 0% to 150% of the Company's performance-based restricted stock awards vest at the end of a three year service period from the date of grant based upon achievement of the performance condition specified. Except for death, disability, or qualifying retirement, any portion of an award that has not vested is forfeited upon termination of employment. The Company may terminate any portion of the award that has not vested upon an employee's failure to comply with all conditions of the award. An employee is not entitled to any voting rights with respect to any shares not yet vested, and the shares are not transferable.

Item 9 Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A Controls and Procedures

Disclosure Controls and Procedures

Under the supervision and with the participation of the Company's management, including the Chief Executive Officer and the Chief Financial Officer, the Company conducted an evaluation of the effectiveness of the Company's disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934 (the "Exchange Act"), as amended. Based on this evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of the end of December 31, 2019. There have been no significant changes in the Company's internal controls or in other factors that could significantly affect the internal controls subsequent to the date the Company completed the evaluation.

Item 9B Other Information

Not applicable.

PART III

Item 10 Directors, Executive Officers and Corporate Governance

In accordance with General Instruction G(3), information called for by Part III, Item 10, is incorporated herein by reference from the information appearing under the caption "Proposal 1 - Election of Directors," "Executive Officers," and "Section 16(a) Beneficial Ownership Reporting Compliance" in the definitive Proxy Statement for the 2020 Annual Meeting of Shareholders, which definitive Proxy Statement will be filed electronically with the SEC pursuant to Regulation 14A.

Code of Conduct. The Company's Board of Directors has adopted a Code of Conduct that applies to the Company's Chief Executive Officer, Chief Financial Officer and corporate and divisional controllers. The Code of Conduct is available on the Company's website at www.synalloy.com. Any amendment to, or waiver from, this Code of Conduct will be posted on the Company's website.

Audit Committee. The Company has a separately designated standing Audit Committee of the Board of Directors established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934. The members of the Audit Committee are Anthony A. Callander, Henry L. Guy, Jeffrey Kaczka and James W. Terry.

Audit Committee Financial Expert. The Company's Board of Directors has determined that the Company has at least one "audit committee financial expert," as that term is defined by Item 407(d)(5) of Regulation S-K promulgated by the Securities and Exchange Commission, serving on its Audit Committee. Mr. Anthony A. Callander meets the terms of the definition and is independent, as independence is defined for audit committee members in the rules of the NASDAQ Global Market. Pursuant to the terms of Item 407(d) of Regulation S-K, a person who is determined to be an "audit committee financial expert" will not be deemed an expert for any purpose as a result of being designated or identified as an "audit committee financial expert" pursuant to Item 407(d), and such designation or identification does not impose on such person any duties, obligations or liability that are greater than the duties, obligations or liability imposed on such person as a member of the Audit Committee and Board of Directors in the absence of such designation or identification. Further, the designation or identification of a person as an "audit committee financial expert" pursuant to Item 407(d) does not affect the duties, obligations or liability of any other member of the Audit Committee or Board of Directors.

Item 11 Executive Compensation

In accordance with General Instruction G(3), information called for by Part III, Item 11, is incorporated herein by reference from the information appearing under the caption "Board of Directors and Committees - Compensation Committee Interlocks and Insider Participation," "Director Compensation," "Discussion of Executive Compensation" and "Compensation Committee Report" in the definitive Proxy Statement for the 2020 Annual Meeting of Stockholders, which definitive Proxy Statement will be filed electronically with the SEC pursuant to Regulation 14A.

Item 12 Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

In accordance with General Instruction G(3), information called for by Part III, Item 12, is incorporated by reference from the information appearing under the caption "Beneficial Owners of More Than Five Percent of the Company's Common Stock" and "Security Ownership of Certain Beneficial Owners and Management" in the definitive Proxy Statement for the 2020 Annual Meeting of Shareholders, which definitive Proxy Statement will be filed electronically with the SEC pursuant to Regulation 14A.

Equity Compensation Plan Information. The following table sets forth aggregated information as ofDecember 31, 2019 about all of the Company's equity compensation plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (1) (c)
Equity compensation plans approved by security holders	51,746	$ 14.38	215,823
Equity compensation plans not approved by security holders	—	—	—
Total	51,746	14.38	215,823

(1) *Represents shares remaining available for issuance under the 2015 Stock Awards Plan and the 2011 Plan.*

Non-employee directors are paid an annual retainer of $102,000, and each director has the opportunity to elect to receive 100 percent of the retainer in restricted stock. For 2019, non-employee directors received an aggregate of $304,000 of the annual retainer in restricted stock. The number of restricted shares is determined by the average of the high and low sale price of the Company's stock on the day prior to the Annual Meeting of Shareholders. For 2019, seven non-employee directors each received an aggregate of 15,909 shares. Issuance of the shares granted to the directors is not registered under the Securities Act of 1933 and the shares are subject to forfeiture in whole or in part upon the occurrence of certain events. The above table does not reflect these shares issued to non-employee directors.

Item 13 Certain Relationships and Related Transactions, and Director Independence

In accordance with General Instruction G(3), information called for by Part III, Item 13, is incorporated by reference from the information appearing under the caption "Board of Directors and Committees – Related Party Transactions" and "– Director Independence" in the definitive Proxy Statement for the 2020 Annual Meeting of Shareholders, which definitive Proxy Statement will be filed electronically with the SEC pursuant to Regulation 14A.

Item 14 Principal Accounting Fees and Services

In accordance with General Instruction G(3), information called for by Part III, Item 14, is incorporated by reference from the information appearing under the caption "Independent Registered Public Accounting Firm - Fees Paid to Independent Registered Public Accounting Firm" and "– Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Registered Public Accounting Firm" in the definitive Proxy Statement for the 2020 Annual Meeting of Shareholders, which definitive Proxy Statement will be filed electronically with the SEC pursuant to Regulation 14A.

PART IV

Item 15 Exhibits, Financial Statement Schedules

(a) The following documents are filed as a part of this report:

1. Financial Statements: The following consolidated financial statements of Synalloy Corporation are included in Part II, Item 8:

2. Financial Statements Schedules: The following consolidated financial statements schedule of Synalloy Corporation is included in Item 15:

All other schedules for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore have been omitted.

3. Listing of Exhibits:

   See "Exhibit Index"

Item 16 Form 10-K Summary

None.

Schedule II Valuation and Qualifying Accounts

(in thousands)	Balance at Beginning of Period	Charged to (Reduction of) Cost and Expenses	Deductions	Balance at End of Period
Year ended December 31, 2019				
Deducted from asset account:				
Inventory reserves	$ 676	$ 1,767	$ (1,696)	$ 747
Year ended December 31, 2018				
Deducted from asset account:				
Inventory reserves	$ 697	$ 1,828	$ (1,849)	$ 676
Year ended December 31, 2017				
Deducted from asset account:				
Inventory reserves	$ 966	$ 1,237	$ (1,506)	$ 697

Index to Exhibits

Exhibit No. from Item 601 of Regulation S-K	Description
1.1	Underwriting Agreement dated September 24, 2013, incorporated by reference to Registrant's Form 8-K filed September 24, 2013
1.2	Equity Distribution Agreement, dated August 9, 2018, between Synalloy Corporation and BB&T Capital Markets, a division of BB&T Securities, LLC, and Ladenburg Thalmann & Co. Inc., incorporated by reference to Registrant's Form 8-K filed August 10, 2018
3.1	Restated Certificate of Incorporation of Registrant, as amended, incorporated by reference to Registrant's Form 10-Q for the period ended April 2, 2005
3.2	Restated Certificate of Incorporation of Registrant, as amended, incorporated by reference to Registrant's Form 8-K filed May 18, 2015
3.3	Bylaws of Registrant, incorporated by reference to Registrant's Form 10-Q for the period ended March 31, 2001, as amended, which amendments are incorporated by reference to Registrant's Form 8-K filed August 13, 2007
4.1	Form of Common Stock Certificate, incorporated by reference to Registrant's Form 10-Q for the period ended March 31, 2001
10.1	Synalloy Corporation 2005 Stock Awards Plan, incorporated by reference to the Proxy Statement for the 2005 Annual Meeting of Shareholders
10.2	Amendment 1 to the Synalloy Corporation 2005 Stock Awards Plan, incorporated by reference to Registrant's Form 10-K for the year ended December 29, 2007
10.3	Amendment 2 to the Synalloy Corporation 2005 Stock Awards Plan, incorporated by reference to Registrant's Form 10-K for the year ended January 3, 2015
10.4	Synalloy Corporation 2015 Stock Awards Plan, incorporated by reference to the Proxy Statement for the 2015 Annual Meeting of Shareholders
10.5	Amended and Restated Synalloy Corporation 2015 Stock Awards Plan, incorporated by reference to Registrant's Form 10-Q for the period ended June 30, 2018
10.6	2011 Long-Term Incentive Stock Option Plan, incorporated by reference to Registrant's Proxy Statement for the 2011 Annual Meeting of Shareholders
10.7	Agreement between Registrant's Specialty Pipe & Tube, Inc. subsidiary and the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union Local 4564-07, dated July 1, 2014, incorporated by reference to Registrant's Form 10-K for the year ended January 3, 2015
10.8	Agreement between Registrant's Bristol Metals, LLC subsidiary and the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union Local 5852-22, dated March 12, 2018, but effective January 6, 2018, incorporated by reference to Registrant's Form 10-K for the year ended December 31, 2017
10.9	Second Amended and Restated Loan Agreement, dated as of August 31, 2016, between Registrant and Branch Banking and Trust ("BB&T"), incorporated by reference to Registrant's Form 10-Q for the period ended September 30, 2016
10.10	Third Amended and Restated Loan Agreement, dated as of October 30, 2017, between Registrant and BB&T, incorporated by reference to Registrant's Form 10-Q for the period ended September 30, 2017
10.11	First Amendment to Third Amended and Restated Loan Agreement, dated as of June 29, 2018, between Registrant and BB&T, incorporated by reference to Registrant's Form 10-Q for the period ended June 30, 2018
10.12	Second Amendment to Third Amended and Restated Loan Agreement, dated as of December 20, 2018, between Registrant and BB&T, incorporated by reference to Registrant's Form 10-K for the period ended December 31, 2018.
10.13	Employment Agreement, dated as of March 1, 2019, between Registrant and Craig C. Bram, incorporated by reference to Registrant's Form 10-K for the period ended December 31, 2018.
10.14	Employment Agreement, dated as of March 1, 2019, between Registrant and Dennis M. Loughran, incorporated by reference to Registrant's Form 10-K for the period ended December 31, 2018.
10.15	Employment Agreement, dated as of March 1, 2019, between Registrant and James G. Gibson, incorporated by reference to Registrant's Form 10-K for the period ended December 31, 2018.
10.16	Stock Purchase Agreement, dated as of August 10, 2012, among Jimmie Dean Lee, James Varner, Steven C. O'Brate and Registrant, incorporated by reference to Registrant's Form 8-K filed on August 24, 2012

10.17	Stock Purchase Agreement, dated as of November 21, 2014, between The Davidson Corporation and Registrant, incorporated by reference to Registrant's Form 8-K filed on November 25, 2014
10.18	Asset Purchase Agreement, dated as of December 9, 2016, between Marcegaglia USA, Inc. and Registrant's Bristol Metals, LLC subsidiary, incorporated by reference to Registrant's Form 10-K for the year ended December 31, 2016
10.19	Amendment No. 1 to Asset Purchase Agreement, dated as of February 28, 2017, between Marcegaglia USA, Inc. and Registrant's Bristol Metals, LLC subsidiary, amending the Asset Purchase Agreement between the parties dated December 9, 2016, incorporated by reference to Registrant's Form 10-K for the year ended December 31, 2016
10.20	Amendment No. 2 to Asset Purchase Agreement, dated as of July 1, 2018, between Marcegaglia USA, Inc. and Registrant's Bristol Metals, LLC subsidiary, further amending the Asset Purchase Agreement between the parties dated December 9, 2016, incorporated by reference to Registrant's Form 10-Q for the period ended June 30, 2018
10.21	Asset Purchase Agreement, dated as of June 29, 2018, but with a closing effective date of July 1, 2018, between Marcegaglia USA, Inc. and Registrant's Bristol Metals, LLC subsidiary, incorporated by reference to Registrant's Form 10-Q for the period ended June 30, 2018
10.22	Asset Purchase Agreement, dated as of November 30, 2018, between American Stainless Tubing, Inc. (now HLM Legacy Group, Inc.) and Registrant's ASTI Acquisition, LLC (now American Stainless Tubing, LLC) subsidiary, incorporated by reference to Registrant's Form 10-K for the period ended December 31, 2018.
10.23	Purchase and Sale Agreement, dated as of September 1, 2016, between Store Capital Acquisition, LLC and Registrant's Bristol Metals, LLC, Specialty Pipe & Tube, Inc., Palmer of Texas Tanks, Inc., Manufacturers Soap & Chemical Company, Manufacturers Chemicals, LLC subsidiaries, and Registrant, incorporated by reference to Registrant's Form 10-Q for the period ended September 30, 2016
10.24	Master Lease Agreement, dated as of September 30, 2016 between Registrant and Store Master Funding XII, LLC, incorporated by reference to Registrant's Form 10-K for the year ended December 31, 2016
10.25	Purchase and Sale Agreement, dated as of May 25, 2018, between Marcegaglia USA, Inc. and Registrant's Bristol Metals, LLC subsidiary, incorporated by reference to Registrant's Form 10-Q for the period ended June 30, 2018
10.26	Agreement to Designate and Lease, dated as of June 29, 2018, between Registrant and Store Capital Acquisitions, LLC, incorporated by reference to Registrant's Form 10-Q for the period ended June 30, 2018
10.27	Amended and Restated Master Lease Agreement, dated as of June 29, 2018, between Registrant and Store Master Funding XII, LLC, incorporated by reference to Registrant's Form 10-Q for the period ended June 30, 2018
10.28	Purchase and Sale Agreement, dated as of November 30, 2018, between American Stainless Tubing, Inc. (now HLM Legacy Group, Inc.) and Registrant's ASTI Acquisition, LLC (now American Stainless Tubing, LLC) subsidiary, incorporated by reference to Registrant's Form 10-K for the period ended December 31, 2018.
10.29	Amended and Restated Master Lease, dated as of January 1, 2019, between Registrant and Store Master Funding XII, LLC, incorporated by reference to Registrant's Form 10-K for the period ended December 31, 2018.
10.30	Agreement between Registrant's Bristol Metals, LLC subsidiary and the United Steelworkers of America Local 4586, dated August 1, 2019.
21	Subsidiaries of the Registrant
23.1	Consent of KPMG LLP, independent registered public accounting firm
31.1	Rule 13a-14(a)/15d-14(a) Certifications of Chief Executive Officer
31.2	Rule 13a-14(a)/15d-14(a) Certification of the Chief Financial Officer
32	Certifications Pursuant to 18 U.S.C. Section 1350
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase
101.LAB*	XBRL Taxonomy Extension Label Linkbase
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase
101.DEF*	XBRL Taxonomy Extension Definition Linkbase
*	In accordance with Regulation S-T, the XBRL-related information in Exhibit 101 to this Annual Report on Form 10-K shall be deemed "furnished" and not "filed."

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

SYNALLOY CORPORATION

By /s/ Craig C. Bram Craig C. Bram President and Chief Executive Officer (principal executive officer)	March 6, 2020 Date

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

/s/ Murray H. Wright Murray H. Wright Chairman of the Board	March 6, 2020 Date
/s/ Anthony A. Callander Anthony A. Callander Director	March 6, 2020 Date
/s/ Amy J. Michtich Amy J. Michtich Director	March 6, 2020 Date
/s/ James W. Terry, Jr. James W. Terry, Jr. Director	March 6, 2020 Date
/s/ Henry L. Guy Henry L. Guy Director	March 6, 2020 Date
/s/ Susan S. Gayner Susan S. Gayner Director	March 6, 2020 Date
/s/ Jeffrey Kaczka Jeffrey Kaczka Director	March 6, 2020 Date
/s/ Craig C. Bram Craig C. Bram Chief Executive Officer and Director	March 6, 2020 Date
/s/ Dennis M. Loughran Dennis M. Loughran Senior Vice President and Chief Financial Officer (principal financial and accounting officer)	March 6, 2020 Date

Exhibit 10.30

A G R E E M E N T

between

BRISTOL METALS, L.L.C.

and

UNITED STEELWORKERS

LOCAL 4586

August 1, 2019

Printed in the U.S.A.

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Exhibit 10.30

P R E A M B L E

THIS AGREEMENT, dated August 1, 2019, is entered into between BRISTOL METALS, L.L.C., Bristol, Tennessee (hereinafter referred to as the Company), and the UNITED STEELWORKERS on behalf of Local 4586 (hereinafter referred to as the Union).

It is the intent and purpose of the parties hereto that this agreement will promote and improve industrial and economic relationships between the employees and the Company, and to set forth herein the basic agreement covering rates of pay, hours of work and conditions of employment to be observed between the parties hereto.

ARTICLE 1 - Recognition

1. As a result of the election, supervised by the National Labor Relations Board of April 5, 1951 and May 5, 1954, and the Decision in Case No. 10-UC- 23, January 10, 1969, the Company recognizes the United Steelworkers, as the sole exclusive bargaining agency for all fabrication, production and maintenance

employees at the Company's Bristol, Tennessee Plant, excluding all office, clerical, technical, professional, supervisory and custodial employees, as defined in the National Labor Relations Act.

2. The Company and the Union agree to attempt the settlement of all grievances at lowest levels possible, and the Union agrees to conserve as much of the Company's time as possible, in the disposition of complaints.

3. It is understood that all provisions of this Agreement are subject to existing Federal, State and Local Laws.

4. In order to insure maximum, uninterrupted production during the term of this contract, the Company will not lock out its employees on account of labor differences and the Union on its behalf and on behalf of its agents, representatives, employees and members, individually and collectively, agrees there will be no strikes of any kind or nature, including sympathy strikes, during the term of this contract.

In the event of such a strike or threat thereof, the Company, while hereby preserving all the rights and remedies it may have at law or equity, will notify the Union promptly, which in turn, will exert all maximum efforts to prevent or terminate any such strike activity or conduct.

Any employee who engages in such prohibited conduct may be disciplined or discharged at the sole discretion of the Company, and such decision will not be reviewable under the grievance-arbitration procedures of the contract, except on the question of whether the grieving employee actually participated, actively or passively, in such conduct; or whether such employee was irrationally disciplined or discharged.

ARTICLE 2 - Management

1. The Union agrees that, subject to the other provisions of this agreement, the function of Management belongs solely to the Company, and that it will not interfere with the Company's free exercise of this function.

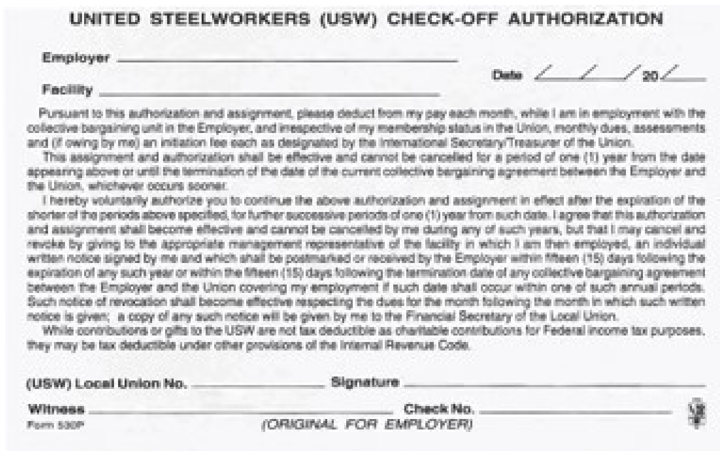
2. The function of Management includes, among other things: The right to select and to hire new employees; the right to direct the work forces; the right to formulate reasonable plant rules; the right to discipline, suspend, discharge for cause, transfer, demote or promote, and the right to relieve employees of their duty because of lack of work, lack of skill or inefficiency, in such manner as to promote the efficient operation of the plant; and the right to assign work to employees; to decide the number and location of its plants; to determine the products to be manufactured, including the means and processes of manufacturing and to introduce new or improved production

methods or facilities and except to the extent provided for in this agreement, the Company reserves and retains, solely and exclusively, all of its inherent rights to manage the business as such rights existed prior to the execution of this agreement.

ARTICLE 3 - Check Off Provisions

Upon receipt of voluntary written authorization from any employee in the form to be provided by the Union, the Company will deduct from the earnings of said employee his weekly membership dues in the Union under the following procedure:

The greater amount of Five Dollars or an amount equal to .6461% of the employee's total earnings in the immediately prior week not to exceed 2.8 times an employee's average hourly earnings in the immediate prior month and .02 cents per hour for all full hours included in total earnings. Such authorization may be in the following form:



UNITED STEELWORKERS (USW) CHECK-OFF AUTHORIZATION

Employer ______________________ Date ___/___/___ 20___

Facility ______________________

Pursuant to this authorization and assignment, please deduct from my pay each month, while I am in employment with the collective bargaining unit in the Employer, and irrespective of my membership status in the Union, monthly dues, assessments and (if owing by me) an initiation fee each as designated by the International Secretary/Treasurer of the Union.

This assignment and authorization shall be effective and cannot be cancelled for a period of one (1) year from the date appearing above or until the termination of the date of the current collective bargaining agreement between the Employer and the Union, whichever occurs sooner.

I hereby voluntarily authorize you to continue the above authorization and assignment in effect after the expiration of the shorter of the periods above specified, for further successive periods of one (1) year from such date. I agree that this authorization and assignment shall become effective and cannot be cancelled by me during any of such years, but that I may cancel and revoke by giving to the appropriate management representative of the facility in which I am then employed, an individual written notice signed by me and which shall be postmarked or received by the Employer within fifteen (15) days following the expiration of any such year or within the fifteen (15) days following the termination date of any collective bargaining agreement between the Employer and the Union covering my employment if such date shall occur within one of such annual periods. Such notice of revocation shall become effective respecting the dues for the month following the month in which such written notice is given; a copy of any such notice will be given by me to the Financial Secretary of the Local Union.

While contributions or gifts to the USW are not tax deductible as charitable contributions for Federal income tax purposes, they may be tax deductible under other provisions of the Internal Revenue Code.

(USW) Local Union No. __________ Signature ______________________

Witness ______________________ Check No. ______________

Form 530P (ORIGINAL FOR EMPLOYER)

Pursuant to this authorization and assignment, please deduct from my pay each month, while I am in employment within the collective bargaining unit in the Company, monthly dues, assessments and (if owing by me) an initiation fee each as designated by the Treasurer of the International Union, as my membership dues in said Union.

The afore said membership dues shall be remitted promptly by you to the International Treasurer of the United Steelworkers, or its lawful successor at the address which he authorizes, in writing, for that purpose.

The assignment and authorization shall be effective and cannot be canceled for a period of one (1) year from the date appearing above or until the termination date of the current collective bargaining agreement between the Company and the Union, whichever occurs sooner.

I hereby voluntarily authorize you to continue the above authorization and assignment in effect after the expiration of the shorter of the periods above specified, for further successive periods of one (1) year from such date. I agree that this authorization and assignment shall become effective and cannot be canceled by me during any such years, but that I may cancel and revoke by giving to the Local Union President and appropriate management representative of the plant in which I am then employed, an individual written notice signed by me and which shall be postmarked or received by the Union and the Company within fifteen days following the expiration of any such year or within the fifteen days following the termination date of any collective bargaining agreement between the Company and the Union covering my employment if such date shall occur within one of such annual periods. Such notice of revocation shall become effective respecting the dues for the month following the month in which such written notice is given; a copy of any such notice will be given by me to the Financial Secretary of the Local Union.

Local Union No. ____

United Steelworkers Signature ____

Witness ____

Check No. ____

Ledger No. ____

The Union shall indemnify and save the Company harmless against any and all claims, demands, suits or other form of liabilities that rise out of or by reason of action taken by the Company in reliance on the aforementioned written assignment or for the purpose of complying with any of the provisions of this section.

The Union shall submit to the Company at its request a list of its members; such list shall not be required more often than three month intervals. The Company will furnish a designated officer or individual of the Local Union each month as expeditiously as reasonably practicable, two (2) copies of the names of the employees from whose earnings such deductions have been made, along with the amounts of money so deducted.

ARTICLE 4 - PAC Check-off Authorization

The Company agrees that it will check-off and transmit to the Treasurer of the United Steelworkers Political Action Committee (USW PAC) voluntary contributions to the USW Political Action Fund from the earnings of those employees who voluntarily authorize such contributions on forms provided for that purpose by the USW PAC. The amount and timing of such check-off deductions and the transmittal of such voluntary contributions shall be as specified in such forms and in conformance with any applicable state or federal statue.

The signing of such USW PAC check-off form and the making of such voluntary annual contributions are not conditions of membership in the Union or of employment with the Company.

The Union shall indemnify and save the Company harmless against any and all claims, demands, suits or other forms of liability that shall arise out of or by reason of action taken or not taken by the Company for the purpose complying with any of the provisions of this Section.

The United Steelworkers Political Action Committee supports various candidates for federal and other elective office, is connected with the United Steelworkers, a labor organization, and solicits and accepts only voluntary contributions, which are deposited in an account separate and segregated from the dues fund of the Union, in its own fund raising efforts and in joint fund raising efforts with the AFL- CIO and its Committee on Political Education.

In cases where a deduction is made which duplicates a payment already made to the union by an employee, or where a deduction is not in conformity with the provisions of the Union Constitution and Bylaws or the National

Labor Relations Act, refunds to the employee will be made by the local Union.

ARTICLE 5 - No Discrimination

It is agreed that there shall be no discrimination as provided in applicable State and Federal Statutes, against any employee by the Union or the Company because of race, color, religion, national origin, sex, age, or memberships or non membership in a labor organization.

The parties recognize that the individuals covered by this Agreement are likewise covered by the Family and Medical Leave Act of 1993, and that the Company will abide the Act which provides for up to twelve (12) weeks of unpaid leave per year for employees in appropriate circumstances.

ARTICLE 6 - Wages

The various jobs within the following classifications shall be:

JOB CLASSIFICATION	JOBS IN CLASSIFICATION
1	General Helper * * to include: Pipe Press Helper, 7 ½ Ton Overhead Crane, 10 Ton Overhead Crane, X-Ray Helper, 533 Helper, Ajax Helper, and all other small Machine Operators.
2	Tractor Driver Fork Lift Operator Mobile Crane Hook-up Batch Tack-on Helper Batch Tack-on Operator Pickling Helper Saw Operator Storekeeper Shipping & Receiving Warehouse Helper Sand Belt Operator Continuous Mill Helper
3	Press Brake Helper Shear Helper QA Inspector Ajax Furnace Operator Gas Furnace Operator Car Furnace Operator 533 Sizing Operator Pipe Press Operator Pipe Burner Operator Rotary Straightener Operator Neutralizing Operator PM Helper Planish Operator Beveler Operator Pickling Tank Operator Pipe Marker Operator Warehouse Operator Hydro Tester Operator Edge Prep Operator

	Maintenance Apprentice (Step 1) * *Any Maintenance Apprentice at a higher class as of 8/1/2019 will maintain their higher class.
4	Press Brake Operator Shear Operator Roll Operator Mobile Crane Operator Batch Operator Boom Operator X-Ray Technician Neutralizing Technician Material Receiving Technician Shipping Technician Plasma Table Operator Seamer Operator Car Box Welder Operator Sub-Arc Operator
5	Continuous Mill Operator Roll Room Technician
6	QA Sr Lab Technician Hand Welder X-Ray Technician Level 3 PM Technician
7	Maintenance Mechanic Maintenance Electrician Special Projects Mechanic

RATES

Rates of pay for the foregoing classifications are set forth in Appendix "A". Rates shown in the various Columns of Appendix "A" shall become effective as follows: Column 1, February 3, 2020; Column 2, February 1, 2021; Column 3, February 7, 2022; Column 4, February 6, 2023; Column 5, February 5, 2024.

All job classifications deleted will be restored to the classification where located at the time of deletion, if the Company brings the job back. Employees in Classifications 2 and 4 can bid on job vacancies in Classifications 2+ and 4+. Cross bids are permitted for + classifications, bids and test bids. Classification 6 and 7 are excluded from this provision.

RATES FOR NEW JOBS & CHANGED JOBS

When the Company establishes a new job in the bargaining unit, it shall temporarily place it in a classification in line with the wage scale of similar work in jobs covered by this Agreement.

After a reasonable period of time allowed for perfecting the procedures and the machine or equipment involved, and when the job becomes fully operational, that is, is functioning normally in the production process, the Company will provisionally place it in a classification in line with the wage rate for similar work in jobs covered by this Agreement.

If no one in the classification is available to fill the job, it shall be posted for bids in the normal manner. The provisional classification for such a job will remain in effect for sixty days from the time the provisional classification is made. If, after the sixty day period, the Company deems the classification to be proper and accurate and the Company notifies the Union in writing, and no grievance is filed by the Union within five calendar days after the end of the sixty day period, the provisional classification will be considered the permanent classification for the job.

If during the term of this Agreement a significant and substantial change in job content in a job has been effected by the Company to the extent that the wage rate has become inappropriate as compared to the wage rate for similar jobs covered by this Agreement, and the Company fails to reclassify the job, the Union may request the Company to review the circumstances in conference with the Union.

Retroactive pay will be paid, including agreed to amounts, where jointly decided between the Company and Union. The Union has the right to grieve and arbitrate per the CBA.

ARTICLE 7 - Shift Assignments & Shift Preference

The Company will staff all shifts on the basis of the employee's preference of shifts, taking into account his classification, skills and experience and plant seniority as vacancies occur. However, the junior qualified employee may be assigned to a particular shift when in the judgment of the Company, his skills and experience are needed to provide a balance of skills and experience between the shifts, and such will promote the efficient operation of the plant.

When such an assignment takes place, however, and the employee who was assigned possesses sufficient plant seniority to work on a different shift of his preference, after a period of thirty days on such assignment he may apply for a shift of his preference within his department based on his plant seniority, classification, skill and experience, provided that such application may be made by the employee only once in any six (6) calendar month period and provided that an employee with the necessary skill and experience, who possesses less plant seniority, is available to replace him. Under such circumstances, the Company will train the junior employee. Subject to the foregoing conditions but in addition to the above applications, application for shift preference may be made throughout the plant once each year during a period of two consecutive calendar weeks to be designated by the Company.

The parties hereto agree it is not the intention of the parties to abuse the assignment of employees between shifts, and that the company agrees to confer with the Union, upon request, concerning alleged abuse. The Company will make a reasonable effort to train employees who wish to exercise shift preference. A premium rate of $.30 per hour will be paid for workers assigned to second shift. A premium rate of $.35 per hour will be paid for workers assigned to third shift.

ARTICLE 8 - Profit Sharing Plan

<u>Reason for the Profit Sharing Plan</u>

The manufacture and sale of stainless steel pipe and fittings is a highly competitive business with many domestic as well as foreign producers. Because worldwide productive capacity is much greater than demand, prices for these products will continue to be under pressure. Under these conditions, the only way we can produce profits is by working together to control costs and operate efficiently. It is hoped that this profit sharing plan ("plan"), which is effective only during the term of this agreement, will:

1. Motivate every employee eligible under the plan to improve his or her performance and help in every way they can to produce profits.
2. Reward employees for their efforts by paying them a share of Brismet profits as additional remuneration over and above their wages and salaries.

Who Participates

Every production, maintenance and supervisory employee who is assigned to pipe manufacturing, hereinafter called "BRISMET", and who:

1. Is a full-time employee that has completed 90 days of full-time employment
2. Is employed at the end of any quarter for which a distribution is paid
3. Is employed by the Company or on layoff at the time any distribution is paid for the first, second, third and fourth quarter unless termination was due to retirement or disability for which the employee received benefits under the Company's corresponding benefit plan; and
4. Is employed by the Company at the end of the fiscal year in question unless termination was due to retirement or disability for which the employee received benefits under the Company's corresponding benefit plan

Source of Pool

Six percent (6%) of Brismet's operating earnings before income taxes as reflected in the corporate accounting records and financial statements will form a pool to be distributed to eligible employees. Such earnings are to be the sole source of contributions to the pool. Revenues and expenses will be allocated to Brismet using accounting methods which the Company believes, at its sole discretion, most accurately reflect Brismet's profits.

Allocation of Pool to Employees

The pool will be divided so that every eligible employee gets the same percent of his or her straight- time pay (excluding all overtime) that all other eligible employees receive. Only wages earned after 90 days of full-time employment will be included for purposes of calculating the distribution made to an employee.

When Distribution Will Be Paid

Profits for each fiscal year and any related distribution will not be finally determined until completion of the annual audit by the Company's outside certified public accountants. However, in order to give employees the opportunity to receive their distributions sooner, any distributions will be made according to the following schedule:

1. Approximately 45 days after the end of the Company's fiscal first, second and third quarters for each fiscal year, the Company will pay 75% of any estimated distributions for each quarter based on Brismet's cumulative earnings.
2. Approximately 75 days after the Company's fiscal year-end, but in no event sooner than the completion of

the Company's audit, distributions will be made for the year less any previous quarterly payments. Should the actual distributions for the year be less than the previous payments, employees will not be asked to return the overpayment.

3. Profit Sharing payment will be on a separate direct deposit.

Qualifying as a Bona Fide Profit Sharing Plan

It is agreed that the inclusion of this plan in the collective bargaining agreement and its implementation is conditioned upon the plan being qualified as a bona fide "profit sharing plan" under 29 C.F.R. Part 549.

ARTICLE 9 - Vacations/Paid Time Off

All eligible employees on the payroll of the Company on June 1st of a Vacation Year who have been in the Company's employ for twelve (12) consecutive months or more on June 1st of the Vacation Year shall be entitled to a vacation with pay in accordance with the following:

Accumulated Seniority	**Days of Vacation**
Less than a year	Partial
1 year but less than 3 years	1 week (40 hours)
3 years but less than 10 years	2 weeks (80 hours)
10 years but less than 20 years	3 weeks (120 hours)
20 years or more	4 weeks (160 hours)

Employees continuously on the payroll on June 1 with less than 1 year of seniority and who have satisfactorily completed the 90 day probationary period shall receive partial vacation pay equal to one- twelfth (1/12) of forty hours pay at his regular rate for each full month of uninterrupted service prior to the initial June 1 eligibility date or receive the equivalent vacation time off. This partial vacation will be paid on the first pay day after the initial eligibility date. Vacation shall count towards the 40 hour work week.

Employees who have not completed the 90-day probationary period prior to the initial June 1 eligibility date must satisfactorily complete the probationary period prior to receiving any partial vacation pay. Upon successful completion of the probationary period, such employees shall receive partial vacation pay equal to one-twelfth (1/12) of forty hours pay at his regular rate for each full month of uninterrupted service prior to the initial eligibility date. This partial vacation pay will be paid on the first day after the employee has satisfactorily completed the probationary period. Each of the forgoing elections is conditioned upon the employee being otherwise eligible for the vacation benefits described herein. Thereafter, the normal eligibility rules will apply.

Where an employee otherwise would be eligible for an additional week (40 hours) of vacation benefit under the above schedule for the June 1 eligibility date, such employee shall receive vacation with pay for the amount of vacation benefit for which he is eligible plus partial vacation pay equal to one-twelfth (1/12th) of forty (40) hours pay at his regular hourly rate for each full month of uninterrupted service between the employee's anniversary date of hire and June 1 of the current year or receive the equivalent vacation benefit time off.

The above vacation table was changed during December 9, 2004 contract negotiations. The change to the vacation benefit is not retroactive and shall be implemented beginning June 1, 2005.

All vacations will be allowed and must be taken during the twelve (12) months or vacation year after an employee becomes eligible. EXAMPLE: An employee who is eligible for one (1) week on June 1, 2010, will be given and must take his week's vacation prior to June 1, 2011.

Vacations are not cumulative. Vacation period may be designated by the Company to meet the operating needs of the Plant and may be designated during a one or two week period in which the plant may be closed for vacation. Notice to this effect shall be posted each year during the last seven days of March. Provided, the Company agrees not to close the plant for vacation period during a week in which July 4 is observed as a holiday under the terms of this Agreement.

In the event a decision is made not to close down the plant for vacation, employees will be granted vacations on the basis of seniority as far as possible, subject to the efficient operating requirements of the plant. Employees with more than two weeks vacation will have priority over junior employees for two week's vacation period.

All requests for choice of vacation period shall be made by employees, in writing, and to which they shall be bound, between the 15th and 20th day of April, and the Company, after consultation with the Union, will announce by May 1, whether the request will be honored or not. Employees will be reminded of this requirement during the last seven days of March.

An employee may elect to waive his vacation time off and receive vacation pay in lieu thereof, by requesting such between the 15th and 20th day of April. Under such circumstances, vacation pay will be paid at the end of the first full week in June.

Upon retirement, a retiring employee shall be entitled to receive a pro-rated portion of his or her vacation allotment for the coming year, based upon the observed vacation year (June 1 to May 31). The amount of such payment shall be computed by determining the amount of vacation time that the employee would have received had he remained on the payroll until June 1 and pro-rating such amount based upon the number of months of active employment on the employee's part between June 1 in one calendar year and May 31 of the next calendar year. Such amount shall be paid after the next vacation year commences on June 1. EXAMPLE: Employee A retires December 1, 2009. Had he remained on the payroll until June 1, 2010, he would have received four weeks of vacation which he could have taken between June 1, 2010 and May 31, 2011. Upon retirement on June 1, 2010, he would receive payment for two weeks of vacation computed as follows: 6 months of active employment (June 1, 2009 - December 1, 2009) divided by 12 potential months of employment (June 1, 2009 - May 31, 2010) = ½; ½ x 4 weeks vacation = 2 weeks vacation.

ELIGIBILITY

An employee must have been employed twelve (12) consecutive months and worked a minimum of 1,200 hours during those twelve (12) months prior to June 1st in order to be eligible for a vacation 1 week (40 hours).

An employee must have been employed thirty- six (36) consecutive months and worked a minimum of 1,200 hours during the twelve (12) month period prior to June 1st in order to be eligible for a vacation of two (2) weeks

(40 hours/week). This may consist of two separate periods one (1) week (40 hours) as designated by the Company.

An employee must have been employed one hundred twenty (120) consecutive months and worked a minimum of 1,200 hours during the twelve (12) month period prior to June 1st in order to be eligible for a vacation of three (3) weeks (40 hours/week). This may consist of three separate periods one (1) week (40 hours) as designated by the Company.

An employee must have been employed two hundred forty (240) consecutive months and worked a minimum of 1,200 hours during the twelve (12) month period prior to June 1st in order to be eligible for a vacation of four (4) weeks (40 hours/week). This may consist of four separate periods one (1) week (40 hours) as designated by the Company.

For the purpose of determining whether 1,200 or more hours have been worked, time lost due to an injury arising out of Company employment, jury duty or due to absence from work while on vacation under the agreement, shall be added to the actual hours the employee worked, at the rate of eight (8) , ten (10) or twelve (12) hours per day but not less than forty (40) or more than forty-eight (48) hours per week (if his job has operated at 48 hours per week during his absence.)

An employee who is laid off, quits or is discharged, and who meets the eligibility requirements for vacation and has not had a vacation after becoming eligible therefore shall receive his vacation pay at the time of such layoff, quit or discharge.

Time lost by an employee for a period of at least an entire payroll week, due to a bona fide sickness supported by a physician's certificate or other unusual hardship, acceptable to the Company, may be applied to any vacation time to which such employee is entitled if the employee so requests.

Employees will receive pay for holidays as defined in this agreement occurring during vacation period, unless an election has been made under the paragraph following immediately.

Holidays, legal or otherwise, which may occur during the time an employee is on vacation shall not extend the employee's vacation period. Provided, however, that any employee who elects to receive time off for a holiday, as defined in this Agreement, which occurs during his vacation period, may at the time of this election prior to his/her vacation designate another day, more than thirty (30) days after his vacation period, and be entitled to time off on that day, having already received holiday pay. Provided, further, that no more than five (5) percent of the employees shall be permitted to elect any one alternate day, and that no premium shall attach, in any manner, to such holiday.

The vacation pay for a vacation of one or more weeks shall be forty (40) hours pay per week at the employee's regular hourly rate.

The vacation pay will be paid on the regular payday for the period of the employee's vacation. However, an employee may receive vacation pay (40 hours) before he leaves for vacation time off provided such request is made in writing to the Company at least fourteen (14) days prior to the date his vacation is scheduled to start.

For the employee who requests that vacation be applied because of time lost due to bona fide sickness as described above, the vacation shall be paid on the first regular payday occurring not less than ten (10) days following the date this employee makes such request.

In the event of death of an employee after becoming eligible for a vacation but before taking a vacation, the amount of vacation pay to which he would have been entitled shall be paid to his proper legal representative.

Employees can reserve vacation time to be used one day at a time. Employees with a total of four (4) weeks of vacation time can reserve two (2) weeks (80 hours) of vacation and employees with less than four (4) weeks of vacation time can reserve one (1) week (40 hours) of vacation. These days of vacation have to be taken in whole days depending on the employee's regular work schedule. For example: If an employee's regular work schedule is for an eight (8) hour work day, then his day at a time vacation will be eight (8) hours. If an employee's regular work schedule is for ten (10) hour work day, then his day at a time vacation will be ten (10) hours. If an employee's regular work schedule is for twelve (12) hour work day, then his day at a time vacation will be twelve (12) hours. Days at a time vacation are not subject to being paid prior to the employee taking the vacation time off. Employees requesting a day at a time vacation have to schedule the vacation day prior to the day requested. Two weeks' notice is preferred. Employees who have completed the 90 day probationary period are eligible for personal days. One personal day is allowed every six (6) months. The six (6) month periods are June 1st - November 30th and December 1st - May 31st. Personal days cannot be carried over into the next six (6) month period. Un-used personal days will be paid at the end of each six (6) month period at the employee's regular hourly rate. Personal days are intended to help employees with scheduled activities such as doctor and dentist appointments, school activities, etc…… Prior notice of absence is expected when possible. The employee will receive time off depending on his regular work day schedule. For example: If the employee's regular work day is (8) hours the employee will receive eights (8) hours pay. If the employee's regular work day is ten (10) hours the employee will receive ten (10) hours pay. If the employee's regular work day is twelve (12) hours the employee will receive twelve (12) hours pay. Personal Days do not count as hours worked, therefore personal days do not count toward the 40 hours required before overtime starts to accumulate.

ARTICLE 10 - Hours of Work

1. Eight (8), ten (10), or twelve (12) consecutive hours (exclusive of lunch period) shall constitute a standard day's work and forty (40) hours shall constitute a standard week's work. The Company shall determine the starting and quitting time and the number of hours to be worked. However, before the starting time is changed, the Company will confer with the Union. Eight (8), ten (10), twelve (12) consecutive hours plus lunch periods, within any period of twenty- four (24) hours, shall constitute a shift.
2. All time worked over forty (40) hours in any one week, shall be paid for at the rate of time and one- half. Reference overtime language in Article 19, Item 19.
3. The opportunity for overtime work assignments shall be based on seniority among qualified employees in the classification in which overtime work is being performed.

An employee absent from work for any reason on the day that daily overtime is assigned will be deemed to have had an opportunity to perform overtime work.

Equalization of overtime work shall be based on a calendar month-to-month cycle. Any employee believing he has been unreasonably denied an equal opportunity for overtime work during any calendar month may raise the question under Article 16. The “date of origin” under Paragraph 1 (a) of that Article shall be the last day of the calendar month in which the alleged unequal treatment took place.

If it is decided that the employee’s allegation has merit, the employee will be placed in a preferential position to perform overtime turns sufficient to remedy the unequal treatment.

When notice is given concerning casual overtime worked one (1) hour before the end of an employee’s shift, on any day the Company may require employees to perform overtime work to the extent of securing the number of employees for which overtime work is assigned, based on the inverse order of seniority among qualified employees plant wide in the classification in which overtime work is being performed. For weekend overtime the Company will give a one and one-half (1½) days notice for 1st shift employees and give a two (2) days notice for 2nd and 3rd shift employees. For example: Weekend overtime work for 8 hour shifts (Monday through Friday) will require a notification by noon on Thursday for 1st and 2nd shift and on Wednesday for 3rd shift. Overtime work for 10 hour shifts (Monday through Thursday) will require a notification by lunch break of 1st shift on Wednesday for 1st and 2nd shifts. If the Company does not notify the affected employee as required above, the affected employee will be considered not scheduled to work weekend overtime. Weekend overtime greater than six hours will include paid lunch.

However, first choice for casual overtime work shall be given to the employee or employees actually performing the work on the day on which the overtime is necessary.

Employees refusing under such circumstances to perform overtime work will be subject to discharge.

Casual overtime, or daily overtime, is that work outside regular working hours, which occurs from time to time, and which is not pre-scheduled. Scheduled overtime is that work which is pre- scheduled no later than the previous day, generally by department or larger entities, and becomes a part of the scheduled workday.

4. Employees who have not been notified at quitting time and are called in for work after completion of their regular scheduled workday shall receive a minimum of four (4) hours’ pay at his regular hourly rate.

5. When it becomes necessary, the Company will make every effort to notify the employees of reduced working schedules by posted or individual notices on or before the close of the previous day’s shift. Should the Company not so notify and an employee reports for work the next morning, he shall be allowed to work at least four (4) hours at his regular hourly rate or be paid for four (4) hours if work is not available which he can do. Employees who were not at work the preceding day may not claim this benefit. In cases of emergency beyond the control of the employer, or absence of an employee at time of notice, it may not be possible to give advance notice of lack of work. In such cases, there will be no “call-in” pay for employees reporting to work.

6. All payroll will be made via direct deposit. Direct deposits of employee’s pay shall be weekly and paid every Friday. Direct deposits will be computed Monday through Sunday inclusive of hours worked of the preceding week.

7. Double time will be paid for hours worked on Sunday, except for hours worked on Sunday by an employee whose regular shift begins on Saturday and ends on Sunday or begins on Sunday and ends on Monday. There will be no duplication of pay under this provision and any other provision.

REST PERIODS

Employees shall be granted two (2) rest periods per day not to exceed ten (10) minutes each, one during the earlier part of the shift and one during the later part of the shift. The times at which such rest periods are taken are to be determined by the employee's foreman or other designated Management representatives. Employees who are required to work during their foregoing rest periods will receive additional pay for such periods equal to their regular straight time rate of pay.

ARTICLE 11 - Holidays

1. The following days shall be recognized as holidays for the purpose of this Agreement: New Year's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving, Day before Christmas, Christmas Day.

When any of these holidays fall on a Saturday or Sunday, Friday or the following Monday will be recognized as a holiday.

Employees shall be paid for the holidays provided they meet all of the following eligibility requirements:

a. If the holiday falls on a day on which the employee would normally have been scheduled to work had a holiday not occurred, the Company shall not disqualify such employee by changing such normal schedules for the purpose of avoiding payment for the holiday.

b. Except during his authorized vacation period, the employee's working at least eight hours during the week in which the holiday occurs.

c. An employee who is scheduled and agrees to work on a holiday and is absent for any reason except sickness, death in the family, or some similar extraordinary circumstance is not eligible for holiday pay.

d. The holiday pay shall be at the employee's regular hourly rate for eight (8) hours. Employees assigned to the 10-hour/12-hour rotating schedule who work their regular scheduled 10-hour/12-hour shift on the assigned holiday will receive 10 hours/12 hours holiday pay at their regular rate. Employees assigned to the 10-hour/12-hour rotating schedule whose regularly scheduled working day does not fall on the holiday will receive 8 hours holiday pay at their regular rate.

e. It is the policy of the Company to avoid working on holidays covered by this contract. No work will be performed on these holidays unless absolutely necessary to meet customer delivery requirements. Two and one-half times will be paid for hours worked on these holidays. It is understood that this two and one-half times includes the regular holiday pay to which an employee would be entitled had he not worked and that there will be no duplication of pay under this provision and any other provision.

ARTICLE 12 - Seniority

1. For purposes of this Agreement, plant-wide seniority shall prevail for transfers, recalls, layoff, promotions, demotions, and shift preference as vacancies occur subject to giving consideration to the qualifications, which shall include experience, ability, physical fitness, and efficiency required by the job. A seniority list of all employees shall be supplied by the Company to the Union each three (3) months, which, if not questioned by the Union within

seven (7) calendar days after receipt, shall be conclusive for the purposes of this Agreement. A seniority list and classifications will be posted on the first day of each month.

2. An employee shall lose his seniority under the following conditions:

a. If he resigns or voluntarily quits;

b. If he is terminated for just cause;

c. If he has less than two (2) years seniority at the time of layoff and remains in layoff status for more than one (1) year;

d. If he has two (2) or more years of seniority at the time of the layoff and remains in layoff status for more than three (3) years.

e. If he fails to return to work upon the expiration of an approved leave of absence or his vacation;

f. If he fails to return to work at the appropriate time upon being recalled from layoff;

g. If he has not been actively employed due to disability twenty-four (24) consecutive months.

3. All newly hired employees shall be considered to be on probation for a period of ninety (90) working days. The duration of the probationary period may be extended by mutual agreement of the Company and the Union. At the end of the probationary period, the employee's seniority should be measured from his or her most recent hire date. Probationary employees may be discharged without recourse to the Grievance and Arbitration procedures. During the probationary period, the employee shall not be eligible to participate in employee benefit programs or the receive pay for any time not actually worked, such as vacation or holiday, as may be available to employees who have completed their probationary period.

LAYOFFS

1. When a reduction of forces is necessary, the Company will post the names of the employees to be laid off two (2) days, excluding Saturdays, Sundays, or holidays, prior to such reduction, unless cancellations of orders, changes in customer's requirements, breakdown, accidents or other emergency makes such notice impossible. A copy of the posted list of employees to be laid off will be given to the local Union at the time of posting. Any questions of grievance arising from such reduction of forces must, if possible, be presented within the two (2) day period of such notice.

2. During periods of layoff or cutback the Company will adjust the active work force by transferring employees, on the basis of seniority, to other classifications where needed, and for which they are qualified to immediately perform the full requirements of the job available; provided however that for available jobs in Classification 1 the employees affected need only have minimum qualifications which are defined as not requiring direct supervision, and requiring no more than familiarity instruction. In either case, qualifications will be determined on the basis of the affected employee having previously bid on the classification and performed the available job; temporary transfers thereto; previous experience; individual knowledge, physical abilities; and skills.

Applying the foregoing provisions, such transfers shall be made within the department in which the layoff or cutback has occurred. Only in the event such transfers cannot be effected within the department are such transfers to take place outside the department, pursuant to the foregoing provisions. In the event an employee otherwise would transfer to a classification within his department which is more than three (3) job classifications below his present classification, such employee may elect to be transferred outside the department pursuant to the foregoing provisions, Classifications and incumbents of classifications within a particular department are determined solely by the Company on the basis of the type of product normally worked upon by the employees in their respective classification. If a job is eliminated, the employee shall be trained in that classification and not removed from that classification. Departments are to be pipe manufacturing and maintenance.

RECALL

When the work force is to be increased, qualified employees in a classification on layoff will be recalled before additional hiring is accomplished for that classification.

In recalling employees, the Company will notify employees to be recalled by telephone, if feasible, of the date on which they are expected to return to work.

If personal contact is not made by telephone, the Company will notify employees to be recalled by Certified Mail, Return Receipt Requested, mailed to the last address given by the employee to the Company.

It will be the responsibility of the employee to notify the Company by telephone, if feasible, of his intention to return to work on the designated date before 4:00 p.m. of the second day following delivery of the Company’s certified letter.

If contact by telephone is not feasible, the employee shall notify the Company of his intention to return to work on the designated date by notifying the Company by Certified Mail, Return Receipt Requested, which shall be mailed prior to the end of the second day following the delivery of the Company’s certified letter.

In the interim period, or in the event of an emergency, the Company may recall any employee for a period not to exceed three (3) days, provided efforts for the emergency recalls are made by seniority.

When recall is complete, it is the sense of the parties that employees will be returned to the classifications they held prior to layoff, if sufficient work in their classification is available.

JOB VACANCIES AND PROMOTIONS

New jobs, classifications or vacancies, which are not filled by stand-by employees, other than additional general helpers and laborers will be posted (two copies) on the Bulletin Board for a period of three (3) workdays. A job bid is active for 60 days.

Applications for such opportunities shall be made on both copies (one for the Company, one for the Union) during this three day period, and may be withdrawn only prior to the time the award is made. If the job is not a full-time job, it shall be posted in the same manner and called a stand-by job, and when the job becomes a full-time job, the employee who successfully bids the stand-by job for that operation shall automatically become the full-time operator. Standby operators shall be paid the same and considered on the same basis as full-time operators while they are performing the duties of the full-time operators. A stand-by operator shall be considered a full-time operator when the job becomes a full-time job or when he works over fifty percent (50%) of his time on the job for any six (6) month period.

An employee will be given a reasonable trial period on a new job or in a new classification. If retained therein at the end of thirty days (sixty days for welding operators), it will be presumed the employee is qualified. If deemed unsatisfactory prior thereto, he will be returned to the job he held prior to the bid. Other employees affected by a move of this type will likewise be returned to their previous job.

An employee may bid downward to a lower paying job, when biding on a new job, classification or vacancy, for health reasons only. In such downward bid, he must be presently fully qualified to perform the work without additional training. If successful in such bid, the employee will not be permitted to bid in either direction on any job a full 12 calendar month period from the time he began work on the lower paying job. An employee who has been cutback from an earlier classification during a cutback or layoff period may elect to remain in the classification to which he was cut back with withdrawal. Withdrawals are permitted in only two circumstances - withdrawal of a bid before an award is made; and the type withdrawal set forth in this paragraph.

At the beginning of this contract term, the Company will designate those employees who are presently stand-by operators, and may from time to time post other stand-by jobs for bid. When a job has no stand-by operator, or when a stand-by operator is not available, that is, not at work on the premises at the time, temporary vacancies may be filled without regard to seniority for a period of thirty (30) days in filling a temporary vacancy, and employee working regularly at a job in a lower classification, but who has previously worked regularly at the temporarily vacant job, will, if he has seniority over other employees similarly situated, be given preference over other employees in filling the temporary vacancy. However, if such vacancy continues beyond thirty (30) days because of illness, leave of absence, vacation or other cause of the employee regularly assigned to the job, then the Shop Committee and Management will meet in an effort to fill the vacancy either by continuing the employee temporarily selected or selecting another employee for such additional period of time as may be agreed upon. If such vacancy cannot be filled from among employees within the bargaining unit then the Company may employee a new employee to fill the job. Employees who are transferred from their regular job in order to fill a temporary vacancy as described above will be paid their regular rate or the rate of the job to which they are transferred, whichever is higher.

In lieu of actually moving the proper employee to the temporary vacancy, the Company, in its discretion, may elect to compensate the employee for the difference in compensation involved. Compensation will be limited to one employee.

A stand-by operator, or any employee, who takes the job of an operator, or any other employee, on a temporary basis--that is, when the operator or other employee is absent because of illness, leave of absence, vacation, or other such temporary absence-shall acquire no rights to such job over the operator or other employee, regardless of seniority.

In the event it is determined that no present employee with seniority is qualified to fill the position in question, then the Company may hire a new employee to fill the position.

An employee may bid on a posted job when absent from work, if not on extended disability, by contacting the Local Union President. The Company will supply the Local Union President the names of employees that are not present when a job is posted.

ARTICLE 13 - Absenteeism

1. To maintain efficient production schedules, the parties insist on regular, punctual attendance of all employees.
2. Chronic absenteeism or chronic tardiness will be cause for discharge or other disciplinary action.
3. An employee who has previous knowledge of an absence from work shall notify the Company 30 minutes prior to the beginning of their scheduled shift.

In emergency situations, or where unexpected events cause an absence from work, an employee must notify the Company as soon as possible on the day of such absence and provide the reason therefore. Employees who fail to provide notice, as provided above, for three successive workdays shall be considered as voluntary quits.

ARTICLE 14 - Safety and Health

1. Both parties to this Agreement will strive to improve the safety conditions for the protection of employees and to agree to police this provision so as to insure against unnecessary injury to the employee and costly interruption to operation. Neither party will uphold needless or careless acts calculated to injure an employee or his fellow workers. The Company and Union agree to meet and review Safety concerns monthly. The Company and Union shall discuss the appointment of their respective committee members. The Local Union President will always be included in the meeting or shall designate his/her representative for each meeting. Each party shall rotate the chair.
2. The Company will furnish without cost to the employees all protective equipment deemed necessary by the Company. All such items shall be checked out to the employee who shall be responsible for its safekeeping and care. Failure of this responsibility by the employee shall result in the cost of the item being deducted from his next check. The Company will pay a differential of $150.00 per pair for Safety Shoes, purchased and worn regularly by employees while on duty. Employees who regularly work in the pickling operation will be eligible to receive this payment twice per year. Should employees be required by law to wear hard hats and ear plugs, they will be furnished by the Company. The Company will supply cold weather clothing to employees assigned to jobs that requires them to be outdoors on a daily basis.
3. The Union shall designate at least two (2) safety committeemen in the Plant. These committeemen shall be part of the Plant’s safety committee which shall meet monthly with the company’s representative in an effort to improve safety conditions and practices in the Plant.
4. An employee shall not be required to work on a job which will be dangerous to life or limb.
5. The Company agrees to equip a satisfactory First Aid Station.
6. Should an employee suffer a job-related, compensable injury, he shall be paid for the balance of the day on which the injury occurred.

ARTICLE 15 - Shop Committee

1. The Union Shop Committee shall consist of not more than four (4) members, one of whom shall be designated as Chairman. There may be one additional committeeman for the night shift.

2. The Union Shop Committee shall be recognized as the Plant Grievance Committee and all disputes resulting from the application and/or interpretation of this agreement shall be handled by said Committee with the assistance of the Union International Representative in cases where such assistance is deemed necessary by the Committee.

3. The Union shall notify the Company in writing of the names of the Shop Committee, and the Company shall furnish in writing to the Union the names of its Supervisors.

ARTICLE 16 - Grievance Procedure

1. All grievance and/or disputes arising out of the application or interpretation of the provisions of the Agreement shall be handled in accordance with the following procedure. Employees may be discharged during their probationary period without recourse to the grievance and arbitration procedures.

a. The aggrieved employee shall register his grievance within two (2) workdays from the date of origin of his alleged grievance with his immediate foreman, or he may request his foreman to call the grievance committeeman in his area and the committeeman shall be called as soon as possible, but not later than the end of the shift in which the request is made.

b. Failing satisfactory adjustment within two

(1) workdays after being presented to the immediate foreman, the grievance shall be reduced to writing by the Shop Committee and appealed to the Superintendent within two (2) workdays thereafter and the Superintendent shall forthwith offer to meet with the Shop Committee within two (2) workdays for the purpose of adjusting said grievance. The Superintendent shall within two (2) workdays after such meeting has been held give a written acceptance to the grievance.

c. Failing satisfactory adjustment in Step b., the President of the Company or his designated representative shall be notified in writing within five (5) days after the written answer provided for in Step a. has been received. The President of the Company or his designated representative shall meet with the Shop Committee and the International Representative on the 2nd and/or 4th Monday of each month to discuss grievances for which a formal appeal has been made. These meetings may be held on other dates which may be more convenient to the parties by mutual agreement. The President of the Company or his designated Representative shall, within five (5) days after such meeting has been held, give written answer to the Shop Committee with a copy to the International Representative.

a. Should a grievance fail to be settled as provided above, either party may submit the matter to arbitration by giving written notice of its desire to do so to the other party. The Arbitrator shall be selected in the following manner: The Company and the Union shall jointly request the Federal Mediation and Conciliation Service to name seven (7) available Arbitrators. Chosen by a toss of a coin, the winner shall strike the name of one Arbitrator, and alternately each party shall strike another, the remaining last name to be the person to serve as the Arbitrator.

b. The Arbitrator shall promptly inquire into all matters affecting the complaint and shall within thirty

(30) days of his appointment render his decision in writing, and said decision shall be final and binding upon the parties to this Agreement. One half of the expense of the Arbitrator shall be paid by each party.

c. Arbitrated matters shall be confined to the meaning and application of the provisions of this Agreement.

2. The Union International Representative may be requested to, and shall have the right to; assist in the adjustment of any and all grievances after Step b. of the grievance procedure has been invoked.

3. The Union International Representative shall have access to the Company's property during working hours for the purpose of ascertaining if the provisions of the Agreement are being complied with. The Union International Representative shall obtain from the Company, specific authorization for each visit and such visits shall be subject to such regulations as may be made from time to time by the Company.

4. The Company will not impose regulations which will exclude the Union International Representative from its property, nor render ineffective the intent of the foregoing paragraph.

5. Grievances not reduced to writing by the Shop Committee and not appealed to the superintendent within six (6) workdays from the date of origin of the alleged grievance shall not be considered under this grievance procedure.

When a negative answer is given to a grievance at any step, or when no answer is given to a grievance at any step, the appeal to the next step must be accomplished within the time limits set forth. Otherwise, the appeal shall be deemed to have been waived.

The aggrieved employee may be present at all steps of the grievance procedure. In group grievances, the group may be represented by not more than two employees.

ARTICLE 17 - Leave of Absence

1. Upon written request of the Union, a leave of absence without pay will be granted to any employee to serve as a full-time representative of the Union. Leave of absence shall be for a period of one (1) year, subject to annual renewal by mutual agreement. In no event will the number of employees so serving exceed one. Employees serving as full-time representatives of the Union shall maintain and accumulate seniority. The Company will not arbitrarily withhold leaves of absence without pay to not more than five (5) employees to attend Union, State or National Conventions and Conferences.

An employee may request up to 30 day personal leave of absence per Company policy.

ARTICLE 18 - Supervisory Employees

Supervisory employees shall not perform work on any hourly rated job classification if the result would be to displace an employee in the bargaining unit, but this will not prevent such work: (1) in emergency; (2) when regular employees are not available, including such times as when employees are being called in;

(1) in the instruction or training of employees; (4)

in testing materials and production; and (5) in the performance of necessary work when production difficulties are encountered. Lead persons shall be appointed by, and serve at, the discretion of management. Lead persons are the point of contact only when their supervisor is absent from the plant or away from the work area, including his office, for an extended period of time. An employee has the right to refuse a Leadman position.

ARTICLE 19 - General

1. The Company will provide a Union Bulletin Board in a suitable location in the Plant and will post thereon notices of Union Meetings and Union activities as may be submitted by the Union for such posting.

2. The parties hereto agree that there shall be no Union activities on Company time, except that which is specifically provided for in this Agreement.

3. The Company agrees that it will furnish all present and new employees with a copy of the current contract between the Company and the Union. And the Union will be included in the new hire orientation. They will also be furnished with copies of the Insurance Program. The Company will pay the cost of printing these booklets which shall have the Union Label.

4. The Company agrees that all employees will be furnished a copy of the current Shop and Safety Rules for which they will acknowledge receipt by their signature.

5. The Company agrees to furnish the Secretary of the Local Union with a list of separations from employment and new hires on a monthly basis.

6. When circumstances permit, deductions will be made from payments to employees for Virginia State Income Tax.

7. No contract or agreement affecting the employees of this Company to whom this Agreement applies shall be entered into between the Company and any employee or group of employees other than their certified representative, that will in any way conflict with or supersede this Agreement or any extension thereof.

8. When the Company adopts a plant rule or changes a plant rule, the Company will inform the Union prior to posting and immediately furnish a copy to the Local Union President. The rule will be presumed to be valid and in force when posted. If the Union desires to challenge the rule because it is deemed in conflict with the terms of this Agreement, it must do so in writing within five (5) calendar days of the time a copy was furnished to the Union. Otherwise, the rule shall, in fact, be valid.

9. Employees who have been continuously employed for one year at the time of entering the Armed Forces of the United States under the Universal Military Training and Service act shall receive two (2) weeks pay, based on the employee's average earnings for the preceding six months. The Company and the Union agree to follow the provisions of the Universal Military Training and Service Act, as amended, in connection with the reinstatement of employees of the Company who have been discharged from the military and naval services of the United States.

10. A Labor-Management Participation Team Program will be implemented as soon as practicable.

11. The Union may review any new test developed in-house by the Company after the effective date of the Agreement and make suggestions regarding such tests.

12. Written warning letters are to be removed from an employee's record eighteen (18) months after the issuance of the said letter, provided that the offense involved has not been repeated within the 18-month period.

13. The Company agrees that if during the life of this agreement the facility covered by this agreement is sold, leased, transferred or assigned, the Company shall inform the purchaser, lessee, transferee or assignee of the exact terms of this agreement. Bristol Metals, LLC shall not assign this collective bargaining agreement to another party without the prior written consent of the Union, which consent shall not be unreasonably withheld, conditioned of

delayed.

14. Up to three (3) representatives of the Local Union may address hourly new hires during the new employee orientation process.

15. A total of up to $200.00 will be paid annually (on a calendar basis) as a Tool allowance for eligible Class 7 Maintenance and Class 6 PM Techs. There will be no carry over amounts with regard to this program. In other words, if an employee submits receipts of less than $200.00 in the current calendar year period, that amount will not be added to the next year. Employees will receive payment, on a quarterly basis for submitted Supervisor authorized receipts through the Payroll Department in the form of direct deposit. To be eligible, a new employee must have completed the 90-day probationary period. For new employees in the first year of eligibility, the total amount paid will be subject to a pro-rated monthly calculation.

16. Class 7 Maintenance Technician Testing Procedure - The class 7 Maintenance Technician is a tested position. A bid will be posted as per the normal posting procedures. Interested candidates that sign the bid will be given a test. The contents of the test are at the discretion of the company. The tests will be graded, and the bargaining unit is welcome to review the tests for the grading accuracy. For safety reasons only, those that score 85% will be eligible. If more than one person achieves 85% then seniority will determine the candidate. If no one passes the job will be posted to the outside. The same test will be required with the same grade as the internal test. The bargaining unit will again have the right to review the test of an outside candidate.

17. Preventative Maintenance Tests/Score (PM Tests) - The Company and Union agree to an 80% passing score on the Preventative Maintenance test with seniority prevailing over the 80% passing grade.

18. Snow Removal: When snow removal is required it shall be given to the incoming shift by seniority for their respective area. Respective areas shall include all areas within the fence including but not limited to entry ways and sidewalks. Snow removal of the parking lot shall be contracted out. If employees are called in to perform snow removal, seniority shall prevail for that area and classification.

19. To clarify the contractual language on overtime the following shall prevail for the remainder of the current CBA. Overtime shall be awarded on a daily basis to the employee assigned and doing the job on which the overtime is needed (daily/casual overtime). All other overtime shall be considered scheduled overtime. It shall be noted that if an employee is asked the day before if they wish to work overtime, this is considered scheduled overtime. The Classification for which the overtime is occurring shall be awarded the overtime by seniority to the employees in that Classification first, those qualified to perform the work per the contract. If an employee is absent or is on vacation, this shall be counted as if they were asked to perform overtime and shall be counted as such in the equalization hours of overtime. If no employee wished to take such overtime, the least senior qualified shall be forced to work such overtime. A list of overtime will be provided on a monthly basis to the Local Union President. All hours refused by employees for overtime shall be included on this list and will be kept track of by the Company. Equalization of overtime will be utilized as per the contract when situations arise that an employee believes he has been unreasonably denied an equal opportunity for overtime. This agreement is to clarify existing contractual language.

20. It is not the intent of the Company to displace work currently performed by bargaining unit employees. The

Company will consider such factors as economics, availability of specific expertise, equipment, warranty or guarantees involved, and deadlines in making the decision to subcontract. The Company agrees to inform the Union when situations exist that call for outside contractors.

ARTICLE 20 - Group Insurance

Bargaining Unit employees will be eligible for whatever insurance programs the Company's hourly non-bargaining unit employees are eligible, subject to applicable provisions of the parties Supplemental Agreement dated December 9, 2004 (details shall be contained in booklets to be published and distributed to employees following the execution of this Agreement.) The Company provides short term disability insurance. See APPENDIX "B" for how the weekly medical/ dental rates will be calculated.

ARTICLE 21 - 401(k) Plan

The Company is authorized to make required changes to the 401(k) Plan now in effect to comply with current law. The Company's contribution will change from 3% to 4% in year 2 of this contract.

ARTICLE 22 - Vocational Training

The Company agrees to pay the entire cost of vocational training for any employee who successfully completes a related course of study in any bona fide vocational or correspondence school provided that such employee gives advance notice to the Company of his desire to take a course of study and both the course of study and the school are approved by the Company in advance. Any employee taking such a course of study must furnish to the Company satisfactory evidence of having successfully completed it in order to receive reimbursement from the Company for the cost of the course. In addition to vocational training, the Company will maintain an apprenticeship program for maintenance to be utilized to advance employees into maintenance as deemed necessary.

ARTICLE 23 - Jury Duty

An employee who is called to serve on jury duty during a regularly scheduled workday shall be paid by the Company for such time lost from work thereby, the difference between the amount received by him for such service and the amount he would have earned at work, it being the intent of the parties that this sentence provides no more or no less than that required by the current laws of the State of Tennessee. In the event such laws are changed, modified, or become invalid during the term of this Agreement, the parties agree to meet for the purpose of discussing the effect of such change, modification, or invalidation.

It shall be a condition of the foregoing that an employee notify the Company at the time he is called to such duty; that an employee so serving secure from the Clerk of Court and submit to the Company certification of the days he served, the amount he was paid, and the time he was released.

Any employee who is released from jury duty, after having served less than three (3) hours, will be required to report for the remainder of first shift or at their regularly scheduled starting time if working 2nd or 3rd shift. Third shift employees will be excused without pay from work for the shift immediately preceding any day of jury service unless the employee elects to work.

ARTICLE 24 - Bereavement Leave

In the event an employee is absent on a scheduled work day as a result of a death in the immediate family

i.e. the employee's wife, husband, parents, or children (including those legally adopted and stepchildren), grandparents, brothers, sisters, mother-in-law or father-in-law, he shall be paid one (1) day pay at his regular straight - time rate for each day lost up to a maximum of three (3) days. In addition, employees will be paid one (1) day bereavement at their regular straight time rate with regard to a death of a brother in-law, sister in-law, daughter-in-law or son-in-law.

Unpaid leaves to attend the funeral of relatives not members of the immediate family will be considered on a case-by-case basis.

ARTICLE 25 - Termination

All provisions of this Agreement shall remain in full force and effect through July 31, 2024, and at midnight on said date this contract shall expire.

IN WITNESS WHEREOF, the Company and the Union affix their signatures to this Agreement on the __ day of ______.

Exhibit 10.30

United Steelworkers, AFL-CIO/CLC

By: ______________________
Thomas M. Conway
International President

____
John E. Shinn
International Secretary-Treasurer

____
David R. McCall
International Vice President
Administration

____
Fred Redmond
International Vice President
Human Affairs

____
Daniel Flippo
Director District 9

____
Sheila Harris
Sub-District Director

Local Union Negotiating Committee:

____
Steve Lewis, President Local 4586

____
Kenneth Barnhart

____
Marvin Fleenor

____
Michael McClain

____
Kevin Miller

Bristol Metals L.L.C.
Bristol, TN

By: ______________________
Sally Cunningham
VP, Corporate Administration

____
Carl Devine
VP, Manufacturing & Labor Relations

____
Josh Ringley
VP, Business Operations

____
Matthew Robinette
Manager, Manufacturing Operations

____
Jenny Patrick
Manager, Human Resources

Exhibit 10.30

APPENDIX "A"

Classification	2019	2020	2021	2022	2023	2024
1	14.55	14.99	15.36	15.74	16.13	16.53
2	16.26	16.75	17.17	17.60	18.04	18.49
2+	16.94	17.45	17.89	18.34	18.80	19.27
3	18.49	19.04	19.52	20.01	20.51	21.02
3+	19.26	19.84	20.34	20.85	21.37	21.90
4	20.13	20.73	21.25	21.78	22.32	22.88
4+	20.97	21.60	22.14	22.69	23.26	23.84
5+	21.11	21.74	22.28	22.84	23.41	24.00
6	21.19	21.83	22.38	22.94	23.51	24.10
7	21.71	22.36	22.92	23.49	24.08	24.68
Lead persons will receive an additional $1.50 per hour.						

APPENDIX "B"

Changes in Synalloy Corporation's Health Benefits Effective January 1, 2019

Starting in 2010 whereby the employee contributions will be based on the total cost of our group medical per employee. Each of the four tiers of employee contributions will be based on a percentage of the total cost per employee of the health plan. This cost-sharing concept will be a partnership between employees and the company to continue to provide excellent healthcare coverage and to work together to control healthcare costs.

The cost per employee per year (PEPY) in 2018 was $12,537. Going forward, the plan will call for employees to pay a percentage of the PEPY cost as follows: Employee only - 20%; Employee + Child(ren) - 20%; Employee + Spouse - 20% and Employee + Full Family - 20%. Our company will transition into this by doing a step-up model that increases the percentages over a five year period to get to the final percentages that are listed above.

For 2019, the employee contributions will be as follows:

Employee Contributions based on Tier % of $12,537

2019 CDHP Plan	**Annual**	**Monthly**	**Weekly**
EE Only 18%	$1,131.00	$94.25	$21.75
EE + Child(ren) 18%	$1,979.40	$164.95	$38.07
EE + Spouse 18%	$2,262.12	$188.51	$43.50
EE + Family 18%	$2,827.68	$235.64	$54.38

2019 Buy-Up Plan	**Annual**	**Monthly**	**Weekly**
EE Only 18%	$1,413.96	$117.83	$27.19
EE + Child(ren) 18%	$2,474.52	$206.21	$47.59
EE + Spouse 18%	$2,828.04	$235.67	$54.39
EE + Family 18%	$3,535.08	$294.59	$67.98

For years 2020 through 2024, the percentages are listed below. The employee contribution is based on a percentage of the actual medical costs from the previous year. That number will be calculated annually and can go up or down.

	2020	**2021**	**2022**	**2023**	**2024**
EE Only	19%	19%	20%	20%	20%
EE + Child(ren)	19%	19%	20%	20%	20%
EE + Spouse	19%	19%	20%	20%	20%
EE + Family	19%	19%	20%	20%	20%

Exhibit 10.30

INDEX BY PAGE & ARTICLE NUMBER

Exhibit 10.30

UNITED STEELWORKERS

USW™

Unity and Strength for Workers

Synalloy Corporation

Exhibit 21   Subsidiaries of the Registrant

All of the Company's subsidiaries are wholly owned. All subsidiaries are included in the Company's consolidated financial statements. The subsidiaries are as follows:

Synalloy Metals, Inc., a Tennessee corporation
    Bristol Metals, LLC, a Tennessee limited liability corporation

Manufacturers Soap and Chemicals Company, a Tennessee corporation
    Manufacturers Chemicals, LLC, a Tennessee limited liability corporation

Synalloy Fabrication, LLC, a South Carolina limited liability corporation

Palmer of Texas Tanks, Inc., a Texas corporation (formerly Lee-Var, Inc.)

CRI Tolling, LLC, a South Carolina limited liability corporation

Specialty Pipe & Tube, Inc., a Delaware corporation

American Stainless Tubing, LLC, a North Carolina limited liability corporation

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors
Synalloy Corporation:

We consent to the incorporation by reference in the registration statements No. 333-230447 on Form S-3 and No. 333-188937 on Form S-8 of Synalloy Corporation of our reports dated March 6, 2020, with respect to the consolidated balance sheets of Synalloy Corporation as of December 31, 2019 and 2018, the related consolidated statements of operations and comprehensive (loss) income, shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes and financial statement schedule II (collectively, the consolidated financial statements), and the effectiveness of internal control over financial reporting as of December 31, 2019, which reports appear in the December 31, 2019 annual report on Form 10-K of Synalloy Corporation.

Our report on the consolidated financial statements refers to a change in accounting for leases as of January 1, 2019 due to the adoption of Financial Accounting Standards Board Accounting Standards Codification Topic 842, *Leases*.

/s/ KPMG LLP

Richmond, Virginia
March 6, 2020

Exhibit 31.1

CERTIFICATIONS

I, Craig C. Bram, certify that:

1. I have reviewed this annual report on Form 10-K of Synalloy Corporation;

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

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

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

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

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

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

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

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

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

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

Date:	March 6, 2020	/s/ Craig C. Bram
		Craig C. Bram
		Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Dennis M. Loughran, certify that:

1. I have reviewed this annual report on Form 10-K of Synalloy Corporation;

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

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

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

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

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

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

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

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

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

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

Date:	March 6, 2020	/s/ Dennis M. Loughran
		Dennis M. Loughran
		Chief Financial Officer

Exhibit 32

Certifications Pursuant to 18 U.S.C. Section 1350

The undersigned, who are the chief executive officer, the chief financial officer and the principal accounting officer of Synalloy Corporation, each hereby certifies that, to the best of his knowledge, the accompanying Form 10-K of the issuer fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and that information contained in the report fairly presents, in all material respects, the financial condition and results of operations of the issuer.

Date: March 6, 2020

/s/ Craig C. Bram
Craig C. Bram
Chief Executive Officer

/s/ Dennis M. Loughran
Dennis M. Loughran
Chief Financial Officer