## U.S. SECURITIES AND EXCHANGE COMMISSION

## FORM 10-Q

## (Mark One)

$\boxtimes \quad$ Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the Quarterly Period Ended June 30, 2018
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 000-25727

## IKONICS CORPORATION

(Exact name of registrant as specified in its charter)

Minnesota
(State or other jurisdiction of incorporation or organization)

41-0730027
(I.R.S. employer identification no.)

4832 Grand Avenue
Duluth, Minnesota 55807
(Address of principal executive offices)
(218) 628-2217

Registrant's telephone number
Not Applicable
(Former name, former address and former fiscal year, if changed since last report)
Check whether the issuer (1) filed all reports required to be filed by Section 13 or $15(\mathrm{~d})$ of the Securities Exchange Act 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 $\boxtimes$ No $\square$

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files.) Yes $\boxtimes$ No $\square$

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes $\square$ No $\boxtimes$
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer $\square$
Accelerated filer $\square$
Non-accelerated filer $\square$
Smaller reporting company $\boxtimes$ Emerging growth company $\square$

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. $\square$

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes $\square$ No $\mathbb{}$
State the number of shares outstanding of each of the issuer's classes of common equity, as of the latest practicable date: Common Stock, $\$ .10$ par value per share 1,983,553 shares outstanding as of August $1,2018$.

## IKONICS Corporation

QUARTERLY REPORT ON FORM 10-Q

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## PART I -FINANCIAL INFORMATIO N

## ITEM 1. Condensed Financial Statement s

## IKONICS CORPORATION

## CONDENSED BALANCE SHEETS

|  | June 30, 2018 | $\begin{gathered} \text { December 31, } \\ 2017 \end{gathered}$ |
| :---: | :---: | :---: |
|  | (unaudited) |  |
| ASSETS |  |  |
| CURRENT ASSETS: |  |  |
| Cash and cash equivalents | \$ 1,355,828 | \$ 929,700 |
| Short-term investments | 2,920,000 | 2,895,000 |
| Trade receivables, less allowances of $\$ 53,000$ as of June 30, 2018 and December 31, 2017 | 1,868,913 | 2,190,260 |
| Inventories | 2,471,546 | 2,086,065 |
| Prepaid expenses and other assets | 184,426 | 168,242 |
| Income taxes receivable | 3,481 | 2,116 |
| Total current assets | 8,804,194 | 8,271,383 |
| PROPERTY, PLANT, AND EQUIPMENT, at cost: |  |  |
| Land and building | 9,366,400 | 9,207,790 |
| Machinery and equipment | 5,074,952 | 4,968,595 |
| Office equipment | 1,583,524 | 1,573,191 |
| Vehicles | 245,679 | 245,679 |
|  | 16,270,555 | 15,995,255 |
| Less accumulated depreciation | $(8,040,289)$ | $(7,693,594)$ |
| Total property, plant, and equipment, at cost | 8,230,266 | 8,301,661 |
| INTANGIBLE ASSETS, less accumulated amortization of \$137,686 as of June 30, 2018 and |  |  |
| Total assets | \$ 17,405,304 | \$ 16,924,230 |
| LIABILITIES AND STOCKHOLDERS' EQUITY |  |  |
| CURRENT LIABILITIES |  |  |
| Current portion of long-term debt, net | \$ 126,422 | \$ 130,899 |
| Accounts payable | 830,183 | 321,860 |
| Accrued compensation | 341,369 | 360,554 |
| Other accrued liabilities | 84,615 | 62,468 |
| Total current liabilities | 1,382,589 | 875,781 |
| LONG-TERM LIABILITIES |  |  |
| Long-term debt, less current portion, net | 2,886,874 | 2,946,518 |
| Deferred income taxes | 156,839 | 144,000 |
| Total long-term liabilities | 3,043,713 | 3,090,518 |
| Total liabilities | 4,426,302 | 3,966,299 |
| COMMITMENTS AND CONTINGENCIES |  |  |
| STOCKHOLDERS' EQUITY |  |  |
| Preferred stock, par value \$.10 per share; authorized 250,000 shares; none issued | - | - |
| Common stock, par value \$. 10 per share; authorized 4,750,000 shares; issued and outstanding |  |  |
| 1,983,553 shares as of June 30, 2018 and December 31, 2017 | 198,355 | 198,355 |
| Additional paid-in capital | 2,715,863 | 2,709,390 |
| Retained earnings | 10,064,784 | 10,050,186 |
| Total stockholders' equity | 12,979,002 | 12,957,931 |
| Total liabilities and stockholders' equity | \$ 17,405,304 | \$ 16,924,230 |

See notes to condensed financial statements.

## IKONICS CORPORATION CONDENSED STATEMENTS OF OPERATION S (Unaudited)

|  | Three Months Ended June 30, |  |  |  | Six Months Ended June 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  | 2018 |  | 2017 |  |
| NET SALES | \$ | 4,634,177 | \$ | 4,685,361 | \$ | 8,705,655 | \$ | 8,314,353 |
| COST OF GOODS SOLD |  | 2,971,862 |  | 3,242,097 |  | 5,680,921 |  | 5,780,861 |
| GROSS PROFIT |  | 1,662,315 |  | 1,443,264 |  | 3,024,734 |  | 2,533,492 |
| SELLING, GENERAL AND ADMINISTRATIVE EXPENSES |  | 1,308,963 |  | 1,393,636 |  | 2,657,946 |  | 2,904,250 |
| RESEARCH AND DEVELOPMENT EXPENSES |  | 156,472 |  | 184,704 |  | 310,548 |  | 350,474 |
| INCOME (LOSS) FROM OPERATIONS |  | 196,880 |  | $(135,076)$ |  | 56,240 |  | $(721,232)$ |
| INTEREST EXPENSE |  | $(23,807)$ |  | $(20,826)$ |  | $(43,742)$ |  | $(41,643)$ |
| OTHER |  | 11,805 |  | 5,902 |  | 21,226 |  | 11,055 |
| INCOME (LOSS) BEFORE INCOME TAXES |  | 184,878 |  | $(150,000)$ |  | 33,724 |  | $(751,820)$ |
| INCOME TAX EXPENSE (BENEFIT) |  | 39,542 |  | $(44,934)$ |  | 19,126 |  | $(267,857)$ |
| NET INCOME (LOSS) | \$ | 145,336 | \$ | $(105,066)$ | \$ | 14,598 | \$ | $(483,963)$ |
| INCOME (LOSS) PER COMMON SHARE: |  |  |  |  |  |  |  |  |
| Basic | \$ | 0.07 | \$ | (0.05) | \$ | 0.01 | \$ | (0.24) |
| Diluted | \$ | 0.07 | \$ | (0.05) | \$ | 0.01 | \$ | (0.24) |
| WEIGHTED AVERAGE COMMON SHARES OUTSTANDING |  |  |  |  |  |  |  |  |
| Basic |  | 1,983,553 |  | 2,018,466 |  | 1,983,553 |  | 2,018,609 |
| Diluted |  | 1,983,553 |  | 2,018,466 |  | 1,983,553 |  | 2,018,609 |

See notes to condensed financial statements.

## IKONICS CORPORATION

CONDENSED STATEMENTS OF CASH FLOW S (Unaudited)

|  | Six Months EndedJune 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2018 |  | 2017 |  |
| CASH FLOWS FROM OPERATING ACTIVITIES: |  |  |  |  |
| Net income (loss) | \$ | 14,598 | \$ | $(483,963)$ |
| Adjustments to reconcile net income (loss) to net cash provided by |  |  |  |  |
| Depreciation |  | 395,787 |  | 421,412 |
| Amortization |  | 18,615 |  | 19,149 |
| Stock based compensation |  | 6,473 |  | 11,494 |
| Net gain on sale and disposal of property, plant and equipment |  | - |  | $(21,707)$ |
| Deferred income taxes |  | 12,839 |  | - |
| Changes in working capital components: |  |  |  |  |
| Trade receivables |  | 321,347 |  | 269,765 |
| Inventories |  | $(385,481)$ |  | $(290,429)$ |
| Prepaid expenses and other assets |  | $(16,184)$ |  | 215,133 |
| Income tax receivable |  | $(1,365)$ |  | $(207,854)$ |
| Accounts payable |  | 508,323 |  | 144,409 |
| Accrued expenses |  | 2,962 |  | $(26,896)$ |
| Net cash provided by operating activities |  | 877,914 |  | 50,513 |
|  |  |  |  |  |
| CASH FLOWS FROM INVESTING ACTIVITIES: |  |  |  |  |
| Purchases of property, plant, and equipment |  | $(324,392)$ |  | $(134,086)$ |
| Proceeds from sale of property and equipment |  | - |  | 21,707 |
| Purchases of intangible assets |  | $(32,354)$ |  | $(15,044)$ |
| Purchases of short-term investments |  | $(2,920,000)$ |  | $(1,915,000)$ |
| Proceeds on sale of short-term investments |  | 2,895,000 |  | 2,266,000 |
| Net cash provided by (used in) investing activities |  | $(381,746)$ |  | 223,577 |
|  |  |  |  |  |
| CASH FLOWS FROM FINANCING ACTIVITIES: |  |  |  |  |
| Payments on long-term debt |  | $(70,040)$ |  | $(69,564)$ |
| Repurchase of common stock |  | - |  | $(15,038)$ |
| Proceeds from exercise of stock options |  | - |  | 1,885 |
| Net cash used in financing activities |  | $(70,040)$ |  | $(82,717)$ |
|  |  |  |  |  |
| NET INCREASE IN CASH AND CASH EQUIVALENTS |  | 426,128 |  | 191,373 |
| CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD |  | 929,700 |  | 1,048,713 |
|  |  |  |  |  |
| CASH AND CASH EQUIVALENTS AT END OF PERIOD | \$ | 1,355,828 | \$ | 1,240,086 |
|  |  |  |  |  |
| SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION |  |  |  |  |
| Cash paid for interest | \$ | 36,711 | \$ | 35,776 |
| Cash paid for income taxes, net | \$ | 7,652 | \$ | 60,003 |

[^0]
## IKONICS CORPORATION

## NOTES TO CONDENSED FINANCIAL STATEMENT S

(Unaudited)

## 1. Basis of Presentation

The condensed balance sheet of IKONICS Corporation (the "Company") as of June 30, 2018, and the related condensed statements of operations for the three and six months ended June 30, 2018 and 2017, and cash flows for the six months ended June 30, 2018 and 2017, have been prepared without being audited.

In the opinion of management, these statements reflect all adjustments (consisting of only normal recurring adjustments) necessary to present fairly the financial position of IKONICS Corporation as of June 30, 2018, and the results of operations and cash flows for all periods presented.

Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America, have been condensed or omitted. Therefore, these statements should be read in conjunction with the financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

The results of operations for interim periods are not necessarily indicative of results that will be realized for the full fiscal year
Revenue

The Company's significant accounting policies are detailed in "Note 1: Summary of Significant Accounting Policies" of the Company's Annual Report on Form 10-K for the year ended December 31, 2017. In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, Topic 606. Revenue from Contracts with Customers (Topic 606), and in August 2015, FASB issued ASU

2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of Effective Date, which deferred the effective date of ASU 2014-09 by one year. Topic 606 supersedes the revenue recognition requirements previously set forth in the Accounting Standards Codification (ASC) Topic 605, Revenue Recognition, and requires entities to recognize revenue when control of the promised goods or services is transferred to customers at an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services.

On January 1, 2018, the Company adopted Topic 606 for all customer contracts using the modified retrospective method. The adoption of Topic 606 did not result in a change to revenue previously recognized under prior revenue recognition rules. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. The Company does not expect the adoption of the new revenue standard to have a material impact to its operating results on an ongoing basis. A majority of the Company's sales revenue continues to be recognized when products are shipped from its manufacturing facility. However, depending on the individual terms of the agreement with the customer, some sales revenue may be recognized when the goods arrive at the customer's location, the point at which control transfers.

Changes to the Company's significant accounting policies as a result of adopting Topic 606 are discussed below:
Revenue recognition. Revenue is measured based on consideration specified in the contract with a customer, adjusted for any applicable estimates of variable consideration and other factors affecting the transaction price, including noncash consideration, consideration paid or payable to customers and significant financing components. While most of the Company's revenue is contracted with customers through one-time purchase orders and short-term contracts, the Company does have long-term arrangements with certain customers.

## IKONICS CORPORATION

## NOTES TO CONDENSED FINANCIAL STATEMENT S

(Unaudited)

Revenue from all customers is recognized when a performance obligation is satisfied by transferring control of a distinct good or service to a customer.

Individually promised goods and services in a contract are considered a distinct performance obligation and accounted for separately if the customer can benefit from the individual good or service on its own or with other resources that are readily available to the customer and the good or service is separately identifiable from other promises in the arrangement. When an arrangement includes multiple performance obligations, the consideration is allocated between the performance obligations in proportion to their estimated standalone selling price. Costs related to products delivered are recognized in the period incurred, unless criteria for capitalization of costs are met. Costs of revenues consist primarily of direct labor, manufacturing overhead, materials and components. The Company does not incur significant upfront costs to obtain a contract. If costs to obtain a contract were to become material, the costs would be recorded as an asset and amortized to expense in a manner consistent with the related recognition of revenue.

The Company excludes government assessed and imposed taxes on revenue generating transactions that are invoiced to customers from revenue. The Company includes freight billed to customers in revenue. Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of goods sold.

The timing of revenue recognition, billings and cash collections results in accounts receivable on the balance sheet.
Performance obligations. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. A contract's transaction price is allocated to each distinct performance obligation in proportion to its standalone selling price and recognized as revenue when, or as, the performance obligation is satisfied. The Company's various performance obligations and the timing or method of revenue recognition are discussed below:

The Company sells its products to both distributors and end-users. Each unit of product delivered under a customer order represents a distinct and separate performance obligation as the customer can benefit from each unit on its own or with other resources that are readily available to the customer and each unit of product is separately identifiable from other products in the arrangement.

The transaction price for the Company's products is the invoiced amount. The Company does not have variable consideration in the form of refunds, credits, rebates, price concessions, pricing incentives or other items impacting transaction price. The purchase order pricing in arrangements with customers is deemed to approximate standalone selling price; therefore, the Company does not need to allocate proceeds on a relative standalone selling price allocation between performance obligations. The Company applies the practical expedient in paragraph 606-10-50-14 and does not disclose information about remaining performance obligations that have original expected durations of one year or less. There are no material obligations that extend beyond one year.

Revenue is recognized when transfer of control occurs as defined by the terms in the customer agreement. The Company immediately recognizes incidental items that are immaterial in the context of the contract. The Company has applied the practical expedient in paragraph 606-10-25-16A and does not assess if immaterial items are promised goods or services. The Company has also applied the practical expedient in paragraph
606-10-32-18 regarding the adjustment of the promised amount of consideration for the effects of a significant financing component when the customer pays for that good or service within one year or less, as the Company

## IKONICS CORPORATION

## NOTES TO CONDENSED FINANCIAL STATEMENT S

(Unaudited)
does not have any significant financing components in its customer arrangements as payment is received at or shortly after the point of sale, generally thirty to ninety days.

The Company estimates returns based on an analysis of historical experience if the right to return products is granted to its customers. The Company does not record a return asset as non-conforming products are generally not returned. The Company's return policy does not vary by geography. The customer has no rotation or price protection rights.

Trade receivables. Trade receivables include amounts invoiced and currently due from customers. The amounts due are stated at their net estimated realizable value. The Company records an allowance for doubtful accounts to provide for the estimated amount of receivables that will not be collected. The allowance is based on a review of all outstanding amounts on an on-going basis. Management determines the allowance for doubtful accounts by regularly evaluating individual customer receivables and considers a customer's financial condition, credit history, and current economic conditions. Trade receivables are written off when deemed uncollectible. Recoveries of trade receivables previously written off are recorded when received. Accounts are considered past due if payment is not received according to agreed-upon terms

Sales commissions. Sales commissions paid to sales representatives are eligible for capitalization as they are incremental costs that would not have been incurred without entering into a specific sales arrangement and are recoverable through the expected margin on the transaction. The Company has elected to apply the practical expedient provided by ASC 340-40-25-4 and recognize the incremental costs of obtaining contracts as an expense when incurred, as the amortization period of the assets that would have otherwise been recognized is one year or less. The Company records these costs in selling, general, and administrative expense.

Product warranties. The Company offers warranties on various products and services. These warranties are assurance type warranties that are not sold on a standalone basis; therefore, they are not considered distinct performance obligations. The Company estimates the costs that may be incurred under its warranties and records a liability in the amount of such costs at the time the revenue is recognized for the product sale.

International revenue. The Company markets its products to numerous countries in North America, Europe, Latin America, Asia and other parts of the world. Foreign sales were approximately $28 \%$ of total sales during the first six months of 2018 compared to $34 \%$ of sales for the first six months of 2017.
3. Short-Term Investments

The Company's $\$ 2.9$ million of short-term investments at June 30, 2018 is comprised of twelve fully insured certificates of deposit with original maturities ranging from five to six months and interest rates ranging from $1.55 \%$ to $2.00 \%$.

## IKONICS CORPORATION

## NOTES TO CONDENSED FINANCIAL STATEMENT S

(Unaudited)
4. Inventories

The major components of inventories are as follows:

|  | Jun 30, 2018 |  | Dec 31, 2017 |  |
| :---: | :---: | :---: | :---: | :---: |
| Raw materials | \$ | 1,624,803 | \$ | 1,428,924 |
| Work-in-progress |  | 428,384 |  | 423,186 |
| Finished goods |  | 1,618,978 |  | 1,416,547 |
| Reduction to LIFO cost |  | $(1,200,619)$ |  | $(1,182,592)$ |
|  |  |  |  |  |
| Total Inventories | \$ | 2,471,546 | \$ | 2,086,065 |

5. Earnings Per Common Share (EPS)

Basic EPS is calculated using net income (loss) divided by the weighted average of common shares outstanding. Diluted EPS is similar to Basic EPS except that the weighted average number of common shares outstanding is increased to include the number of additional common shares that would have been outstanding if the potential dilutive common shares, such as those shares subject to options, had been issued.

Shares used in the calculation of diluted EPS are summarized below:

|  | Three Months Ended |  |
| :---: | :---: | :---: |
|  | Jun 30, 2018 | Jun 30, 2017 |
| Weighted average common shares outstanding | 1,983,553 | 2,018,466 |
| Dilutive effect of stock options | - | - |
| Weighted average common and common equivalent shares outstanding | 1,983,553 | 2,018,466 |



For the three and six months ended June 30, 2018, options to purchase all 18,000 shares of common stock with a weighted average exercise price of $\$ 13.22$ were outstanding but were excluded from the computation of common shares equivalent because they were anti-dilutive. If the Company was in a net income position for the three months ended June 30, 2017, all 18,168 options outstanding with a weighted average exercise price of $\$ 13.81$ would have remained excluded from the computation of common share equivalents as the options were anti-dilutive.

If the Company was in a net income position for the first six months of 2017, 2,250 options outstanding with a weighted average exercise price of $\$ 8.91$ would have been included as part of the weighted average common and common equivalent shares outstanding as the options would have been dilutive while 15,918 options

## IKONICS CORPORATION

## NOTES TO CONDENSED FINANCIAL STATEMENT S

(Unaudited)
outstanding with a weighted average exercise price of $\$ 14.51$ would have remained excluded as the options were anti-dilutive

## 6. Stock-Based Compensation

The Company maintains a stock incentive plan which authorizes the issuance of up to 442,750 shares of common stock. Of those shares, 18,000 were subject to outstanding options and 102,157 were reserved for future grants at June 30,2018 . The plan provides for granting eligible participants stock options or other stock awards, as described by the plan, at option prices ranging from $85 \%$ to $110 \%$ of fair market value at the date of grant. Options granted expire up to seven years after the date of grant. Such options generally become exercisable over a one- to three-year period.

The Company charged compensation cost of approximately \$3,600 against income for the three months ended June 30, 2018 and approximately $\$ 6,000$ for the three months ended June 30, 2017. For the first six months of 2018, the Company charged compensation cost of approximately $\$ 6,500$ and approximately $\$ 11,500$ for the same period in 2017. As of June 30, 2018, there was approximately $\$ 19,800$ of unrecognized compensation cost related to unvested share-based compensation awards. That cost is expected to be recognized over the next three years.

The Company receives a tax deduction for certain stock option exercises during the period in which the options are exercised, generally for the excess of the market price at the time the stock options are exercised over the exercise price of the options.

Proceeds from the exercise of 250 stock options were approximately $\$ 2,000$ for the six months ended June 30, 2017. There were no options exercised during the six months ended June 30, 2018.

The fair value of options granted during the six months ended June 30, 2018 and 2017 was estimated using the Black-Scholes option pricing model with the following assumptions:

|  | $\mathbf{2 0 1 8}$ |  | $\mathbf{2 0 1 7}$ |
| :--- | :---: | :---: | :---: |
| Dividend yield | $0 \%$ | $0 \%$ |  |
| Expected volatility | $40.0 \%$ |  | $41.3 \%$ |
| Expected life of option | Five Years | Five Years |  |
| Risk-free interest rate | $2.8 \%$ | $1.8 \%$ |  |
| Fair value of each option on grant date | $\$ 3.38$ | $\$ 3.43$ |  |

There were 2,750 and 2,250 options granted during each of the six months ended June 30, 2018 and 2017, respectively while 2,918 options expired during the six months ended June 30, 2018.

## IKONICS CORPORATION

## NOTES TO CONDENSED FINANCIAL STATEMENT S

(Unaudited)
Stock option activity during the six months ended June 30, 2018 was as follows:

|  | Shares | Weighted <br> Average Exercise Price |  |
| :---: | :---: | :---: | :---: |
| Outstanding at January 1, 2018 | 18,168 | \$ | 13.81 |
| Granted | 2,750 |  | 8.63 |
| Exercised | - |  | - |
| Expired and forfeited | $(2,918)$ |  | 12.56 |
| Outstanding at June 30, 2018 | 18,000 | \$ | 13.22 |
| Exercisable at June 30, 2018 | 12,247 | \$ | 15.09 |

The aggregate intrinsic value of all options outstanding and for those exercisable at June 30,2018 was approximately $\$ 1,400$ and $\$ 100$, respectively.
7. Segment Information

The Company's reportable segments are strategic business units that offer different products and have varied customer bases. There are five reportable segments: Domestic, Export, IKONICS Imaging, Digital Texturing (DTX) and Advanced Material Solutions (AMS). Domestic sells screen printing film, emulsions, and inkjet receptive film to distributors located in the United States and Canada. IKONICS Imaging sells photo resistant film, art supplies, glass, metal medium and related abrasive etching equipment to end user customers located in the United States and Canada. AMS provides sound deadening and weight reduction technology to the aerospace industry along with products and services for etched composites, ceramics, glass and silicon wafers. DTX includes products and customers related to patented and proprietary inkjet technology used for mold texturing and prototyping. Export sells primarily the same products as Domestic and the IKONICS Imaging products not related to AMS or DTX. The accounting policies applied to determine the segment information are the same as those described in the Company's Annual Report on Form 10-K for the year ended December 31, 2017.

Management evaluates the performance of each segment based on the components of divisional income (loss). Assets and liabilities are not allocated to segments, except for trade receivables which are allocated based on the previous segmentation. Financial information with respect to the reportable segments follows:

For the three months ended June 30, 2018:

|  | IKONICS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic |  | Export |  | IKONICS Imaging |  | DTX |  | AMS |  | Unalloc. |  | Total |  |
| Net sales | \$ | 1,991,978 | \$ | 1,207,881 | \$ | 868,966 | \$ | 94,322 | \$ | 471,030 | \$ | - | \$ | 4,634,177 |
| Cost of goods sold |  | 1,152,396 |  | 951,597 |  | 443,569 |  | 33,612 |  | 390,688 |  | - |  | 2,971,862 |
| Gross profit |  | 839,582 |  | 256,284 |  | 425,397 |  | 60,710 |  | 80,342 |  | - |  | 1,662,315 |
| Selling, general and administrative* |  | 310,483 |  | 138,930 |  | 236,612 |  | 32,596 |  | 97,476 |  | 492,866 |  | 1,308,963 |
| Research and development* |  | - |  | - |  | - |  | - |  | - |  | 156,472 |  | 156,472 |
| Income (loss) from operations | \$ | 529,099 | \$ | 117,354 | \$ | 188,785 | \$ | 28,114 | \$ | $(17,134)$ | \$ | $(649,338)$ | \$ | 196,880 |

## IKONICS CORPORATION

## NOTES TO CONDENSED FINANCIAL STATEMENT S

(Unaudited)

## For the three months ended June 30, 2017:

|  | IKONICS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic |  | Export |  | IKONICS <br> Imaging |  | DTX |  | AMS |  | Unalloc. |  | Total |  |
| Net sales | \$ | 1,816,956 | \$ | 1,372,092 | \$ | 943,055 | \$ | 471,244 | \$ | 82,014 | \$ | - | \$ | 4,685,361 |
| Cost of goods sold |  | 1,034,059 |  | 1,096,279 |  | 453,213 |  | 358,937 |  | 299,609 |  | - |  | 3,242,097 |
| Gross profit (loss) |  | 782,897 |  | 275,813 |  | 489,842 |  | 112,307 |  | $(217,595)$ |  | - |  | 1,443,264 |
| Selling, general and administrative* |  | 334,071 |  | 189,741 |  | 253,746 |  | 50,861 |  | 104,325 |  | 460,892 |  | 1,393,636 |
| Research and development* |  | - |  | - |  | - |  | - |  | - |  | 184,704 |  | 184,704 |
| Income (loss) from operations | \$ | 448,826 | \$ | 86,072 | \$ | 236,096 | \$ | 61,446 | \$ | $(321,920)$ | \$ | $(645,596)$ | \$ | $(135,076)$ |

For the six months ended June 30, 2018:

|  | IKONICS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic |  | Export |  | IKONICS Imaging |  | DTX |  | AMS |  | Unalloc. |  | Total |  |
| Net sales | \$ | 3,336,458 | \$ | 2,366,221 | \$ | 1,926,304 | \$ | 182,988 | \$ | 893,684 | \$ | - | \$ | 8,705,655 |
| Cost of goods sold |  | 1,986,737 |  | 1,848,657 |  | 1,000,657 |  | 59,004 |  | 785,866 |  | - |  | 5,680,921 |
| Gross profit |  | 1,349,721 |  | 517,564 |  | 925,647 |  | 123,984 |  | 107,818 |  | - |  | 3,024,734 |
| Selling, general and administrative* |  | 619,617 |  | 260,558 |  | 516,205 |  | 67,448 |  | 182,260 |  | 1,011,858 |  | 2,657,946 |
| Research and development* |  | - |  | - |  | - |  | - |  | - |  | 310,548 |  | 310,548 |
| Income (loss) from operations | \$ | 730,104 | \$ | 257,006 | \$ | 409,442 | \$ | 56,536 | \$ | $(74,442)$ | \$ | $(1,322,406)$ | \$ | 56,240 |

## For the six months ended June 30, 2017:

|  | IKONICS |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic |  | Export |  | IKONICS Imaging |  | DTX |  | AMS |  | Unalloc. |  | Total |  |
| Net sales | \$ | 3,120,525 | \$ | 2,427,097 | \$ | 1,933,041 | \$ | 586,475 | \$ | 247,215 | \$ | - | \$ | 8,314,353 |
| Cost of goods sold |  | 1,860,800 |  | 1,935,643 |  | 976,793 |  | 394,419 |  | 613,206 |  | - |  | 5,780,861 |
| Gross profit (loss) |  | 1,259,725 |  | 491,454 |  | 956,248 |  | 192,056 |  | $(365,991)$ |  | - |  | 2,533,492 |
| Selling, general and administrative* |  | 685,493 |  | 385,858 |  | 537,605 |  | 85,496 |  | 201,120 |  | 1,008,678 |  | 2,904,250 |
| Research and development* |  | - |  | - |  | - |  | - |  | - |  | 350,474 |  | 350,474 |
| Income (loss) from operations | \$ | 574,232 | \$ | 105,596 | \$ | 418,643 | \$ | 106,560 | \$ | (567,111) | \$ | $(1,359,152)$ | \$ | $(721,232)$ |

[^1]Trade receivables by segment as of June 30, 2018 and December 31, 2017 were as follows:

|  | Jun 30, 2018 | Dec 31, 2017 |  |  |
| :--- | ---: | ---: | ---: | ---: |
|  |  |  |  |  |
| Domestic | $\$ 890,054$ | $\$, 119,228$ |  |  |
| Export | 333,074 | 558,872 |  |  |
| IKONICS Imaging | 263,351 | 238,813 |  |  |
| DTX | 44,380 | 64,278 |  |  |
| AMS | 343,251 | 238,848 |  |  |
| Unallocated | $(5,197)$ | $(29,779)$ |  |  |
|  |  |  |  |  |
| Total | $\$ 1,868,913$ | $\$ 2,190,260$ |  |  |

## IKONICS CORPORATION

## NOTES TO CONDENSED FINANCIAL STATEMENT S

(Unaudited)

## 8. Income Taxes

The federal Tax Cut and Jobs Act of 2017 (the "Tax Reform Act") was enacted December 22, 2017. Effective January 1, 2018, the Tax Reform Act reduced statutory corporate income tax rates from $35 \%$ to $21 \%$ in addition to other tax changes including revaluation of deferred tax assets and liabilities.

For the first half of 2018 , the Company realized an income tax expense of $\$ 19,000$, or an effective rate of $56.7 \%$, which reflects the new federal corporate rate of $21 \%$ versus the income tax benefit of $\$ 268,000$ or an effective rate of $35.6 \%$, for the first half of 2017 . The Company's increased effective rate for 2018 relates to the higher year-to-date pre-tax income generated and the related impact of an unfavorable provision to return true-up and non-deductible permanent items. The 2017 first half tax benefit was due to the year-to-date net loss. The income tax provision for the 2018 and 2017 periods differ from the expected benefit due to credits for research and development and other non-deductible items.

The Company's federal net operating loss carryforward and research and development credit carryover as of June 30, 2018 was $\$ 141,000$ and $\$ 27,000$, respectively, and will begin to expire in 2037. The Company's gross state net operating loss carryforwards and research and development credit carryover as of June 30 , 2018 was $\$ 61,000$ and $\$ 115,000$, respectively and begin to expire in 2026.

The valuation allowance balance of $\$ 91,000$ at June 30, 2018, relates entirely to Minnesota research and development credit carryforwards that the Company does not expect to utilize and begin to expire in 2028.

It has been the Company's policy to recognize interest and penalties related to uncertain tax positions in income tax expense. As of June 30, 2018 and December 31, 2017, there was no liability for unrecognized tax benefits.

As of June 30, 2018, with few exceptions, the Company is no longer subject to examination prior to tax year 2014.

## IKONICS CORPORATION

The information presented below in Management's Discussion and Analysis of Financial Condition and Results of Operations contains forward-looking statements within the meaning of the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934, as amended. Statements that are not historical or current facts, including statements about beliefs and expectations, are forward-looking statements. These forward-looking statements include statements relating to our future plans and objectives and results. Such statements are subject to risks and uncertainties, including those discussed elsewhere in this report and under the heading "Risk Factors" in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2017, as updated in our subsequent reports filed with the SEC, which could cause actual results to differ materially from those projected. Because actual results may differ, readers are cautioned not to place undue reliance on these forward-looking statements.

## ITEM 2. Management's Discussion and Analysi s of Financial Condition and Results of Operations

The following management's discussion and analysis focuses on those factors that had a material effect on the Company's financial results of operations during the second quarter of 2018 and first six months of 2018, as well as the same periods of 2017. It should be read in connection with the Company's condensed unaudited financial statements and notes thereto included in this Form 10-Q.

## Critical Accounting Estimates

The Company prepares its financial statements in conformity with accounting principles generally accepted in the United States of America. Therefore, the Company is required to make certain estimates, judgments and assumptions that the Company believes are reasonable based upon the information available. These estimates and assumptions affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the periods presented. The accounting estimates, which IKONICS believes are the most critical to aid in fully understanding and evaluating its reported financial results, include the following:

Trade Receivables. The Company performs ongoing credit evaluations of its customers and adjusts credit limits based upon payment history and the customer's current credit worthiness, as determined by review of the current credit information. The Company continuously monitors collections and payments from its customers and maintains a provision for estimated credit losses based upon historical experience and any specific customer collection issues that have been identified. While such credit losses have historically been within expectations and the provisions established, the Company cannot guarantee that it will continue to experience the same collection history that has occurred in the past. The general payment terms are net $30-45$ days for domestic customers and net 30-90 days for foreign customers. A small percentage of the trade receivables balance is denominated in a foreign currency with no concentration in any given country. At the end of each reporting period, the Company analyzes the receivable balance for customers paying in a foreign currency. These balances are adjusted to each quarter or year-end spot rate in accordance with FASB ASC 830, Foreign Currency Matters. The Company also maintains a provision for any customer related returns based upon historical experience of actual returns and any specifically identified product issues, refunds or credits.

Inventories. Inventories are valued at the lower of cost or market value using the last in, first out (LIFO) method. The Company monitors its inventory for obsolescence and records reductions from cost when required.

Income Taxes. Deferred taxes are provided on a liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carryforwards and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment. Deferred tax assets and liabilities are presented as long-term on a net basis. The Company follows the accounting standard on accounting for uncertainty in income taxes, which addresses the determination of whether tax benefits claimed or expected to be claimed on a tax return should be recorded in the
financial statements. Under this guidance, the Company may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50 percent likelihood of being realized upon ultimate settlement. The guidance on accounting for uncertainty in income taxes also addresses derecognition, classification, interest and penalties on income taxes, and accounting in interim periods.

Revenue. In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2014-09, Topic 606. Revenue from Contracts with Customers (Topic 606), and in August 2015, FASB issued ASU 2015-14,Revenue from Contracts with Customers (Topic 606): Deferral of Effective Date, which deferred the effective date of ASU 2014-09 by one year. Topic 606 supersedes the revenue recognition requirements previously set forth in the Accounting Standards Codification (ASC) Topic 605, Revenue Recognition, and requires entities to recognize revenue when control of the promised goods or services is transferred to customers at an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services.

On January 1, 2018, the Company adopted Topic 606 for all customer contracts using the modified retrospective method. The adoption of Topic 606 did not result in a change to revenue previously recognized under prior revenue recognition rules. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. The Company does not expect the adoption of the new revenue standard to have a material impact to its operating results on an ongoing basis. A majority of the Company's sales revenue continues to be recognized when products are shipped from its manufacturing facility. However, depending on the individual terms of the agreement with the customer, some sales revenue may be recognized when the goods arrive at the customer's location, the point at which control transfers.

Changes to the Company's significant accounting policies as a result of adopting Topic 606 are discussed below:
Revenue recognition. Revenue is measured based on consideration specified in the contract with a customer, adjusted for any applicable estimates of variable consideration and other factors affecting the transaction price, including noncash consideration, consideration paid or payable to customers and significant financing components. While most of the Company's revenue is contracted with customers through one-time purchase orders and short-term contracts, the Company does have long-term arrangements with certain customers. Revenue from all customers is recognized when a performance obligation is satisfied by transferring control of a distinct good or service to a customer.

Individually promised goods and services in a contract are considered a distinct performance obligation and accounted for separately if the customer can benefit from the individual good or service on its own or with other resources that are readily available to the customer and the good or service is separately identifiable from other promises in the arrangement. When an arrangement includes multiple performance obligations, the consideration is allocated between the performance obligations in proportion to their estimated standalone selling price. Costs related to products delivered are recognized in the period incurred, unless criteria for capitalization of costs are met. Costs of revenues consist primarily of direct labor, manufacturing overhead, materials and components. The Company does not incur significant upfront costs to obtain a contract. If costs to obtain a contract were to become material, the costs would be recorded as an asset and amortized to expense in a manner consistent with the related recognition of revenue.

The Company excludes governmental assessed and imposed taxes on revenue transactions that are invoiced to customers from revenue. The Company includes freight billed to customers in revenue. Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of goods sold.

The timing of revenue recognition, billings and cash collections results in accounts receivable on the balance sheet.
Performance obligations. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. A contract's transaction price is allocated to each distinct performance obligation in
proportion to its standalone selling price and recognized as revenue when, or as, the performance obligation is satisfied. The Company's various performance obligations and the timing or method of revenue recognition are discussed below:

The Company sells its products to both distributors and end-users. Each unit of product delivered under a customer order represents a distinct and separate performance obligation as the customer can benefit from each unit on its own or with other resources that are readily available to the customer and each unit of product is separately identifiable from other products in the arrangement.

The transaction price for the Company's products is the invoiced amount. The Company does not have variable consideration in the form of refunds, credits, rebates, price concessions, pricing incentives or other items impacting transaction price. The purchase order pricing in arrangements with customers is deemed to approximate standalone selling price; therefore, the Company does not need to allocate proceeds on a relative standalone selling price allocation between performance obligations. The Company applies the practical expedient in paragraph 606-10-50-14 and does not disclose information about remaining performance obligations that have original expected durations of one year or less. There are no material obligations that extend beyond one year.

Revenue is recognized when transfer of control occurs as defined by the terms in the customer agreement. The Company immediately recognizes incidental items that are immaterial in the context of the contract. The Company has also applied the practical expedient in paragraph 606-10-32-18 regarding the adjustment of the promised amount of consideration for the effects of a significant financing component when the customer pays for that good or service within one year or less, as the Company does not have any significant financing components in its customer arrangements as payment is received at or shortly after the point of sale, generally thirty to ninety days.

The Company estimates returns based on an analysis of historical experience if the right to return products is granted to its customers. The Company does not record a return asset as non-conforming products are generally not returned. The Company's return policy does not vary by geography. The customer has no rotation or price protection rights.

Trade receivables. Trade receivables include amounts invoiced and currently due from customers. The amounts due are stated at their net estimated realizable value. The Company records an allowance for doubtful accounts to provide for the estimated amount of receivables that will not be collected. The allowance is based on a review of all outstanding amounts on an on-going basis. Management determines the allowance for doubtful accounts by regularly evaluating individual customer receivables and considers a customer's financial condition, credit history, and current economic conditions. Trade receivables are written off when deemed uncollectible. Recoveries of trade receivables previously written off are recorded when received. Accounts are considered past due if payment is not received according to agreed-upon terms.

Sales commissions. Sales commissions paid to sales representatives are eligible for capitalization as they are incremental costs that would not have been incurred without entering into a specific sales arrangement and are recoverable through the expected margin on the transaction. The Company has elected to apply the practical expedient provided by ASC 340-40-25-4 and recognize the incremental costs of obtaining contracts as an expense when incurred, as the amortization period of the assets that would have otherwise been recognized is one year or less. The Company records these costs in selling, general, and administrative expense.

Product warranties. The Company offers warranties on various products and services. These warranties are assurance type warranties that are not sold on a standalone basis; therefore, they are not considered distinct performance obligations. The Company estimates the costs that may be incurred under its warranties and records a liability in the amount of such costs at the time the revenue is recognized for the product sale.

International revenue. The Company markets its products to numerous countries in North America, Europe, Latin America, Asia and other parts of the world. Foreign sales were approximately $28 \%$ of total sales during the first six months of 2018 compared to $34 \%$ of sales for the first six months of 2017.

## Results of Operations

## Quarter Ended June 30, 2018 Compared to Quarter Ended June 30, 2017

Sales. Sales decreased $1.1 \%$ during the second quarter of 2018 to $\$ 4.6$ million, compared to $\$ 4.7$ million during the same period in 2017. Second quarter sales were unfavorably impacted by a $\$ 377,000$, or $80.0 \%$, DTX sales decrease as 2017 DTX sales benefitted from $\$ 320,000$ in sales of two DTX printers. There were no printer sales during the second quarter of 2018, but the Company expects DTX printer sales in the second half of 2018. DTX consumable sales were also down in the second quarter of 2018 compared to the same period last year. Export sales also realized a $12.0 \%$ sales decrease in the second quarter as sales fell from $\$ 1.4$ million in 2017 to $\$ 1.2$ million in 2018, due mainly to lower sales into Asia that is partially related to timing of sales, which are expected to occur later in 2018. IKONICS Imaging sales decreased from $\$ 943,000$ in the second quarter of 2017 to $\$ 869,000$ in the second quarter of 2018 . The $\$ 74,000$, or $7.9 \%$, decrease in sales is related to lower sales of film products compared to the prior year. Partially offsetting these sales decreases is a $\$ 389,000$ AMS increase as sales grew from $\$ 82,000$ during the second quarter of 2017 to $\$ 471,000$ in the second quarter of 2018. Most of this increase is related to increased sales to AMS's largest customer who is expected to maintain similar sales levels for the remainder of 2018. AMS sales during the second quarter of 2017 were unfavorably affected by a temporary decrease in orders from its largest customer. Domestic also realized a $\$ 175,000$ or $9.6 \%$ sales increase during the second quarter of 2018 compared to the same period last year from increased emulsion sales.

Gross Profit. Gross profit was $\$ 1.7$ million, or $35.9 \%$ of sales, in the second quarter of 2018 compared to $\$ 1.4$ million, or $30.8 \%$ of sales, for the same period in 2017. AMS increased sales volumes benefitted the 2018 second quarter gross margin as the AMS gross margin improved from a negative $265.3 \%$ in second quarter of 2017 to a positive $17.1 \%$ this quarter. A large portion of the AMS cost structure is fixed, causing sales volumes to have a significant impact on its gross margin. The 2018 second quarter DTX gross margin improved to $64.4 \%$ from $23.8 \%$ in the second quarter of 2017 as the 2017 second quarter gross margin was negatively affected by the sale of two low-margin printers. The IKONICS Imaging gross margin decreased from $51.9 \%$ in the second quarter of 2017 to $49.0 \%$ this quarter due to a less favorable sales mix while 2018 second quarter gross margins for Domestic and Export where similar to the same period last year.

Selling, General and Administrative Expenses. Selling, general and administrative expenses were $\$ 1.3$ million, or $28.2 \%$ of sales, in the second quarter of 2018 compared to $\$ 1.4$ million, or $29.7 \%$ of sales, for the same period in 2017. The second quarter 2018 decrease in selling, general and administrative expense is related to the Company's cost reduction initiative. The Company realized lower travel, promotional, consulting and salary expenses.

Research and Development Expenses. Research and development expenses during the second quarter of 2018 were $\$ 156,000$, or $3.4 \%$ of sales, versus $\$ 185,000$, or $3.9 \%$ of sales, for the same period in 2017 . The decrease in 2018 second quarter costs is due to lower production trial expenses. The Company incurred additional production trial expenses in second quarter of 2017 related to the development of its new SubTHAT! film product.

Interest Expense. Interest expense for the second quarter of 2018 was $\$ 24,000$ compared to interest expense of $\$ 21,000$ during the second quarter of 2017. The interest expense is related to a $\$ 3.4$ million financing agreement the Company entered into during 2016 to finance the construction of a 27,300 -square foot building and related equipment for use in the Company's manufacture of sound deadening technology used in the aerospace industry and products consisting of etched composites, ceramics, glass and silicon wafers.

Income Taxes. For the second quarter of 2018, the Company realized an income tax expense of $\$ 40,000$, or an effective rate of $21.4 \%$ which reflects the new federal rate of $21 \%$ enacted December 22, 2017 through the Tax Cut and Jobs Act, compared to the income tax benefit of $\$ 45,000$, or an effective rate of $30 \%$, for the same period in 2017 . The decrease in the quarterly effective tax rate for 2018 over 2017 is primarily due to the lower federal tax rate. The income tax provision for the 2018 and 2017 periods differ from expected tax benefit due to unfavorable non-deductible items and generation of research and development tax credits.

## Six Months Ended June 30, 2018 Compared to the Six Months Ended June 30, 2017

Sales. Sales increased $4.7 \%$ during the first six months of 2018 to $\$ 8.7$ million compared to $\$ 8.3$ million during the same period in 2017. AMS 2018 first half sales increased by $\$ 646,000$, or $261.5 \%$, compared to the same period last year as the Company realized increased sales from its largest customer as the customer maintained expected activity level for the entire 2018 period while AMS sales during the first six months of 2017 were unfavorable affected by a temporary decrease in orders from its largest customer. Domestic sales also increased from $\$ 3.1$ million in first six months of 2017 to $\$ 3.3$ million in the first six months of 2018, a $\$ 216,000$, or $6.9 \%$, sales increase due to improved emulsion and film sales. First half sales of 2018 were unfavorably impacted by a $\$ 403,000$, or $68.8 \%$, DTX sales decrease as 2017 DTX sales benefitted from $\$ 320,000$ in sales of two DTX printers. There were no printer sales during the first six months of 2018 , but the Company expects DTX printer sales in the second half of 2018. DTX consumable sales were also down in the first half of 2018 compared to the same period last year. Export sales for the first six months of 2018 decreased by $\$ 61,000$, or $2.5 \%$, from the same period in 2017 to $\$ 2.4$ million due to lower sales in Asia partially offset by improved sales into Europe and the Middle East. IKONICS Imaging sales were similar for the first six months of 2018 and 2017.

Gross profit was $\$ 3.0$ million, or $34.7 \%$ of sales, in the first half of 2018 compared to $\$ 2.5$ million, or $30.5 \%$ of sales, for the same period in 2017. AMS increased sales volumes benefitted the 2018 gross margin as the AMS gross margin improved from a negative $148.0 \%$ in first half of 2017 to a positive $12.1 \%$ in 2018. A large portion of the AMS cost structure is fixed, causing sales volumes to have a significant impact on its gross margin. The 2018 DTX gross margin improved to $67.8 \%$ from $32.7 \%$ in the first six months of 2017 as the 2017 gross margin was negatively affected by the sale of two low margin printers. The IKONICS Imaging gross margin decreased from $49.5 \%$ in the first half of 2017 to $48.1 \%$ this quarter due to a less favorable sales mix while 2018 gross margin for Export improved from $20.2 \%$ in the first half of 2017 to $21.9 \%$ due to an increase of higher margin European sales. The Domestic gross margin for the first half of the year was similar in 2018 and 2017.

Selling, General and Administrative Expenses. Selling, general and administrative expenses were $\$ 2.7$ million, or $30.5 \%$ of sales, in the first half of 2018 compared to $\$ 2.9$ million, or $34.9 \%$ of sales, for the same period in 2017. The 2018 decrease in selling, general and administrative expense is related to the Company's cost reduction initiative. The Company realized lower travel, promotional, consulting and salary expenses.

Research and Development Expenses. Research and development expenses during the first six months of 2018 were $\$ 311,000$, or $3.6 \%$ of sales, versus $\$ 350,000$, or $4.2 \%$ of sales, for the same period in 2017 . The decrease in 2018 costs is due to lower production trial expenses. The Company incurred additional production trial expenses in 2017 related to the development of its new SubTHAT! film product.

Interest Expense. Interest expense for the first six months of 2018 was $\$ 44,000$ compared to interest expense of $\$ 42,000$ during the first six months of 2017. The interest expense is related to a $\$ 3.4$ million financing agreement the Company entered into during 2016 to finance the construction of a 27,300 -square foot building as well as related equipment for use in the Company's manufacture of sound deadening technology used in the aerospace industry and products consisting of etched composites, ceramics, glass and silicon wafers.

Income Taxes. For the first six months of 2018, the Company realized an income tax expense of $\$ 19,000$, or an effective rate of $56.7 \%$, which reflects the new federal corporate rate of $21 \%$ versus the income tax benefit of $\$ 268,000$ or an effective rate of $35.6 \%$, for the first half of 2017. The Company's increased effective rate for 2018 relates to the higher year-to-date pre-tax income generated and the related impact of an unfavorable provision to return true-up and non-deductible permanent items. The 2017 first half tax benefit was due to the year-to-date net loss. The income tax provision for the 2018 and 2017 periods differ from the expected benefit due to credits for research and development and other non-deductible items

## Liquidity and Capital Resources

Outside of the building expansion, for which $\$ 3.4$ million in financing was obtained during 2016, the Company has financed its operations principally with funds generated from operations. These funds have been
sufficient to cover the Company's normal operating expenditures, annual capital requirements, and research and development expenditures.

Cash and cash equivalents were $\$ 1.4$ million and $\$ 930,000$ at June 30, 2018 and December 31, 2017, respectively. Operating activities provided $\$ 878,000$ in cash during the first six months of 2018 compared to $\$ 51,000$ of cash provided by operating activities during the same period in 2017. Cash provided by operating activities is primarily the result of net income or loss adjusted for noncash depreciation, amortization, and certain changes in working capital components discussed in the following paragraph.

During the first six months of 2018, the timing of collections resulted in a $\$ 321,000$ decrease in trade receivables. The Company believes that the quality of its receivables is high and that strong internal controls are in place to maintain proper collections. Inventories increased by $\$ 385,000$ due to higher raw material and finished goods levels. Prepaid expenses and other assets increased by $\$ 16,000$, reflecting prepayments on inventory items which will not be received by the Company until the third quarter of 2018. Accounts payable increased by $\$ 508,000$ due to the timing of vendor payments for recent large raw materials purchases. Accrued expenses increased by $\$ 3,000$, reflecting the timing of compensation payments while income taxes receivable increased by $\$ 1,000$ due to the timing of estimated tax payments compared to the calculated 2018 tax liability.

During the first six months of 2017, the timing of collections resulted in a $\$ 270,000$ decrease in trade receivables. The Company believes that the quality of its receivables is high and that strong internal controls are in place to maintain proper collections. Inventories increased by $\$ 290,000$ due to higher raw material and finished goods levels. Prepaid expenses and other assets decreased $\$ 215,000$. The prepaid expense balance at December 31, 2016 included prepayments related to two DTX printers which have since been sold. Accounts payable increased $\$ 144,000$ due to the timing of vendor payments mainly related to raw material purchases. Accrued expenses decreased $\$ 27,000$, reflecting the timing of compensation payments while income taxes receivable increased $\$ 208,000$ due to the timing of estimated tax payments compared to the calculated 2017 tax liability.

During the first six months of 2018, cash used in investing activities was $\$ 382,000$. Twelve certificates of deposits totaling $\$ 2.9$ million matured during the first six months of 2018. The Company purchased twelve certificates of deposits totaling $\$ 2.9$ million. The Company's purchases of property and equipment of $\$ 324,000$ were mainly for building upgrades and improvements to production and process capabilities. Also, during the first six months of 2018 , the Company incurred $\$ 32,000$ in patent application costs that the Company records as an asset and amortizes upon successful completion of the application process.

During the first six months of 2017 , cash provided by investing activities was $\$ 224,000$. The Company obtained proceeds from ten certificates of deposits totaling $\$ 2.3$ million and purchased eight certificates of deposits totaling $\$ 1.9$ million. The Company's purchases of property and equipment of $\$ 134,000$ were mainly for improvements to production and process capabilities and a vehicle. Also, during the first six months of 2017, the Company incurred $\$ 15,000$ in patent application costs that the Company has recorded as an asset and will amortize upon successful completion of the application process. In addition the Company sold a vehicle for $\$ 22,000$.

Related to the Company's loan, the Company made principal payments of \$70,000 during the first six months of 2018 and 2017, respectively.

During the first six months of 2017, the Company received $\$ 2,000$ from financing activities from the issuance of 250 shares of common stock due to the exercise of stock options while the Company repurchased 270 shares of its own stock during the first half of 2017 for $\$ 15,000$.

A bank line of credit exists providing for borrowings of up to $\$ 2,050,000$ and expires on June 30,2019. The line of credit is collateralized by the Company's assets and bears interest at 1.8 percentage points over the 30 -day LIBOR rate. The Company did not utilize this line of credit during the first six months of 2018 or 2017, and there were no borrowings outstanding as of June 30,2018 and December 31, 2017. There are no financial covenants related to the line of credit.

The Company believes that current financial resources, its line of credit, cash generated from operations and secured through debt financing, and short-term investments, along with the Company's capacity for additional
debt and/or equity financing will be sufficient to fund current and anticipated business operations. The Company also believes that it is unlikely that a decrease in demand for the Company's products would impair the Company's ability to fund operations given its excess cash and available line of credit.

## Capital Expenditures

Through the first six months of 2018, the Company incurred $\$ 324,000$ of capital expenditures mainly for improvements to production and process capabilities along with upgrades to the heating system at the Company's main Duluth, Minnesota location. The Company expects additional capital expenditures in 2018 of approximately $\$ 290,000$, including an additional $\$ 140,000$ relating to the heating system upgrade at the Company's main Duluth, Minnesota location. In May of 2018, the Company entered into an agreement with a vendor to complete the heating system upgrade. The remaining 2018 capital expenditures are expected to be primarily for production and safety improvements. Currently, the Company expects to fund its capital expenditures with existing cash and cash generated from operating activities.

## International Activity

The Company markets its products to numerous countries in North America, Europe, Latin America, Asia and other parts of the world. Foreign sales were approximately $28.2 \%$ of total sales during the first six months of 2018 compared to $33.6 \%$ of sales for the first six months of 2017. Foreign sales in 2017 were favorably impacted by the sale of two DTX printers totaling $\$ 320,000$ into Europe. There were no DTX printer sales in 2018. Sales into Asia in the first half of 2018 were lower than the same period in 2017. Part of the 2018 decrease is timing related. The fluctuations of certain foreign currencies have not significantly impacted the Company's operations, as the Company's foreign sales are not concentrated in any one region of the world, although a strong U.S. dollar does make the Company's products less competitive internationally. The Company believes its vulnerability due to uncertainties in foreign currency fluctuations and general economic conditions in foreign countries is not significant.

The Company's foreign transactions are primarily negotiated, invoiced and paid in U.S. dollars, while a portion is transacted in Euros. The Company has not implemented an economic hedging strategy to reduce the risk of foreign currency translation or transaction exposures, as management does not believe this to be a significant risk based on the scope and geographic diversity of the Company's foreign operations as of June 30, 2018. Furthermore, the impact of foreign exchange on the Company's balance sheet and operating results was not material in either 2018 or 2017.

## Future Outlook

IKONICS has spent an average of approximately $4.0 \%$ of annual sales in research and development and has made capital expenditures related to new products and programs. The Company plans to maintain its efforts in these areas to expedite internal product development as well as to form technological alliances with outside entities to commercialize new product opportunities.

The Company continues to make progress on its AMS business initiative as demonstrated by its 2018 first half sales. The Company has three long-term sales agreements in place for its technology with major aerospace companies. In anticipation of this growing business, the Company increased its AMS capacity with a 27,300 square foot expansion at its Morgan Park site in 2016.

The Company is also continuing to pursue DTX-related business initiatives. Despite lower sales for the first six months of 2018, the Company expects increasing consumable sales as a result of the sale of two DTX printers in 2017, and they also expect DTX printer sales in second half of 2018. In addition to making efforts towards growing the inkjet technology business, the Company offers a range of products for creating texture surfaces and has introduced a fluid for use in prototyping. The Company is currently working on production improvements to enhance its customer offerings. The Company has been awarded European, Japanese, and United States patents on its DTX technologies. The Company has also modified its DTX technology to facilitate entry into the market for prototyping.

Both the Domestic and IKONICS Imaging units remain profitable in mature markets. Although these business units require aggressive strategies to grow market share, both are developing new products and business relationships that we believe will contribute to growth. In October 2017, the Company introduced SubTHAT! ${ }^{\mathrm{TM}}$, a patent-pending product for the dye-sublimation market. Response to SubTHAT! ${ }^{\mathrm{TM}}$ has been encouraging, however the Company fulfilled a $\$ 258,000$ SubTHAT!TM initial stocking order in the fourth quarter of 2017 and does not expect to receive an order of that magnitude in 2018. In addition to its traditional emphasis on domestic markets, the Company will continue efforts to grow its business internationally by attempting to develop new markets and expanding market share where it has already established a presence. However, the strong U.S. dollar has made this challenging.

Other future activities undertaken to expand the Company's business may include acquisitions, building improvements, equipment additions, new product development and marketing opportunities.

## Recent Accounting Pronouncements

During February 2016, the FASB issued ASU No. 2016-02,Leases. ASU No. 2016-02 was issued to increase transparency and comparability among organizations by recognizing all lease transactions (with terms in excess of 12 months) on the balance sheet as a lease liability and a right-of-use asset (as defined). ASU No. 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, with earlier application permitted. Upon adoption, the lessee will apply the new standard retrospectively to all periods presented or retrospectively using a cumulative effect adjustment in the year of adoption. The Company does not expect the adoption of ASU No. 2016-02 to have a material impact on its financial statements.

## Off-Balance Sheet Arrangements

The Company has no off-balance sheet arrangements.

## ITEM 3. Quantitative and Qualitative Disclosure s about Market Risk

Not applicable

## ITEM 4. Controls and Procedure $s$

As of the end of the period covered by this report, the Company conducted an evaluation, under the supervision and with the participation of the principal executive officer and principal financial officer, of the Company's disclosure control and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act")). Based on this evaluation, the principal executive officer and principal financial officer concluded that the Company's disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and (ii) accumulated and communicated to the Company's management, including its principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

There was no change in the Company's internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and Rule 15d-15(d) of the Exchange Act that occurred during the period covered by this report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATIO N

## ITEM 1. Legal Proceedings

None
ITEM 1A. Risk Factors
Not applicable
ITEM 2. Unregistered Sales of Equity Securities and Use of Proceeds
Not applicable
ITEM 3. Defaults upon Senior Securities

Not applicable
ITEM 4. Mine Safety Disclosures
Not applicable
ITEM 5. Other Information

None

## ITEM 6. Exhibits

The following exhibits are filed as part of this Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2018:

| Exhibit | Description |
| :---: | :---: |
| 3.1 | Restated Articles of Incorporation of Company, as amended (Incorporated by reference to the like numbered |
|  | Exhibit to the Company's Registration Statement on Form 10-SB filed with the Commission on April 7, 1999 (File |
|  | No. 000-25727). |
| 3.2 | Amended and Restated By-Laws of the Company, as amended. (Incorporated by reference to Exhibit 3.1 to the |
|  | Company's Current Report on Form 8-K filed on April 30, 2018 (File No. 000-25757).) |
| 31.1 | Rule 13a-14(a)/15d-14(a) Certifications of CEO |
| 31.2 | Rule 13a-14(a)/15d-14(a) Certifications of CFO |
| 32 | Section 1350 Certifications |
| 101 | Interactive Data Files Pursuant to Rule 405 of Regulation S-T |
|  | of Exhibits will be furnished upon request and payment of the Company's reasonable expenses in furnishing the |
| Exhibits |  |

## IKONICS CORPORATION

## SIGNATURE S

In accordance with the requirements of the Securities Exchange Act of 1934, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

IKONICS CORPORATION

DATE: August 13, 2018
By: /s/ Jon Gerlach Jon Gerlach,
Chief Financial Officer, and
Vice President of Finance

## RULE 13a-14(a)/15d-14(a) CERTIFICATIONS OF CEO

I, William C. Ulland, certify that:

1. I have reviewed this quarterly report on Form 10-Q of IKONICS 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-15f and 15d-15(f)) for the registrant and we 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 (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) 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.
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: August 13, 2018
/s/ William C. Ulland
William C. Ulland
Chairman, Chief Executive Officer
and President

## RULE 13a-14(a)/15d-14(a)/CERTIFICATIONS OF CFO

I, Jon Gerlach, certify that:

1. I have reviewed this quarterly report on Form 10-Q of IKONICS 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-15f and 15d-15(f)) for the registrant and we 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 (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) 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.
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: August 13, 2018
/s/ Jon Gerlach
Jon Gerlach
Chief Financial Officer
and Vice President of Finance

## SECTION 1350 CERTIFICATIONS

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, each of the undersigned certifies that this periodic report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this periodic report fairly presents, in all material respects, the financial condition and results of operations of IKONICS Corporation.

Date: August 13, 2018
/s/ William C. Ulland
William C. Ulland
Chairman, Chief Executive Officer
and President

Date: August 13, 2018
/s/ Jon Gerlach
Jon Gerlach
Chief Financial Officer
and Vice President of Finance


[^0]:    See notes to condensed financial statements.

[^1]:    * The Company does not allocate all general and administrative expenses or any research and development expenses to its operating segments for internal reporting.

