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Zacks Small-Cap Research

Sponsored – Impartial - Comprehensive

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Document Security Systems (DSS-NYSE-Amer)

DSS: Near Term Announcements Could Drive The Stock In Advance of Revenue Growth

Based on blended multiples from its peers of 1.7 times enterprise value to sales, we believe DSS stock is worth $2.11 per share.

Current Price (11/16/18)	$0.92
Valuation	**$2.11**

OUTLOOK

Document Security Systems is a small company with extensive patented expertise in authentication, anti-counterfeiting, and document and packaging printing. It also has an IP technology enforcement and licensing business. It has recently introduced a novel authentication system that allows customers to track and authenticate products using inked or etched marks that can be read by a generic smartphone. The company has signed and is implementing this system with a Fortune 50 customer and expects to announce other customers in the next few months, which should lead to revenue growth and profits.

SUMMARY DATA

52-Week High	**$2.58**
52-Week Low	**$0.61**
One-Year Return (%)	**50.9**
Beta	**2.8**
Average Daily Volume (sh)	**304,447**
Shares Outstanding (mil)	**16.8**
Market Capitalization ($mil)	**$19.2**
Short Interest Ratio (days)	**3.9**
Institutional Ownership (%)	**4**
Insider Ownership (%)	**25**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**1.6**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/M**
P/E using 2018 Estimate	**8.4**
P/E using 2019 Estimate	**N/M**

Risk Level	**Above Average**
Type of Stock	**Small-Blend**
Industry	**Business Services**

ZACKS ESTIMATES

Revenue
(in millions of $)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2016	4.3 A	4.1 A	5.0 A	5.8 A	19.2 A
2017	4.8 A	3.9 A	4.2 A	5.8 A	18.7 A
2018	4.4 A	4.1 A	4.1 A	6.0 E	18.5 E
2019					21.0 E

Earnings Per Share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2016	-$0.05 A	-$0.02 A	$0.00 A	$0.00 A	-$0.07 A
2017	-$0.01 A	-$0.02 A	-$0.02 A	$0.01 A	-$0.04 A
2018	-$0.01 A	$0.16 A	-$0.02 A	$0.01 E	$0.11 E
2019					-$0.06 E

Zacks Projected EPS Growth Rate - Next 5 Years % **N/A**

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WHAT'S NEW

DSS reported Q3 numbers in line with expectations but we expect potential near term events to drive the stock rather this quarter's earnings. We expect three things to happen between now and year end that would be positive for the company and could move the stock.

1. The company continues to be in late stage talks with potential customers. We believe it may soon be signing a new customer for AuthentiGuard in the consumer industry that will allow it to issue a press release on signing. This should give the company and its AuthentiGuard product good publicity and attract other potential customers, and give investors confidence that the product has real potential to generate large revenues down the road. To date the company's current Fortune 50 customer has not allowed DSS to release its name or talk about it in public, despite the fact it is currently rolling out implementation through out its supply chain.

2. DSS recently introduced products targeted at the cannabis industry, which have generated considerable interest. The company's printing and packaging division, Premier Packaging, now offers custom structural designs for folding cartons that are tailored specifically for the cannabis market. There is an opportunity to integrate these packages with DSS's materials management, logistics, converting, and inventory management programs, as well as its product authentication technologies. Many states requiring tracking from seed to finished product along with proof that taxes and duties have been paid and DSS's supply chain and anti-counterfeiting technology is ideally suited to facilitate this. It can provide a comprehensive, secure solution starting with a digital signature on the packaging, all the way through to consumer engagement, including a blockchain-based option. We believe that DSS may announce contracts with some companies in this high growth industry by year-end. This could attract additional investors looking for cannabis related plays.

3. The company had a Markman hearing in its patent lawsuit against Apple and expects to get the results of the Markman in the next six to eight weeks. The stock should react to these results.

Q3 Earnings Report

DSS reported total revenues of $4.1 million versus $4.2 million a year ago, down 2.5%. Printed product sales were steady growing 0.4% to $3.8 million, while Technology sales, services and licensing declined 28% to $311,000. The decline was due to a reduction in licensing royalties and general IT services. The company continues to move away from lower margin IT services.

Gross margins declined to 38% from 43% and gross margin dollars were down 14%. Margin was down due to higher material costs as well as an increase in costs for outside services.

Operating expenses were down $50,000 mostly due to a reduction in depreciation and amortization due to due to the write-off of the semiconductor patents.

The operating loss was $379,000 compared to $173,000 last year.

Interest expense was $27,246 versus $$55,000 last year, bringing the pretax loss to $412,000 versus $260,000. The net loss virtually the same. The loss per share this year was $0.02, flat with a year ago. The shares outstanding increased 22.7% to 16.8 million versus 13.7 million in 2017.

KEY POINTS

- Document Security Systems is a decades old company with expertise in security printing, but with revenues that have been flat for the past few years. Sales are primarily from printing and packaging, but future growth is expected come from its anti-counterfeiting and authentication expertise, which has resulted in a new SaaS product that is just beginning to make inroads with customers.

- DSS has introduced a unique and patented authentication solution that enables corporate customers, as well as end user consumers, to track and authenticate products throughout the supply chain. Its novel approach, which uses double blind labeling, competes with taggants and RFID tracking but is far cheaper and can be used without specialized equipment. The system **allows anyone with a smartphone to scan a product to determine if it is genuine**.

- The company has its first Fortune 50 customer for this product, called "AuthentiGuard," and expects other customers to sign on in the next few months as they see the unique value in its solution. We believe an increase in marketing effort, combined with a high-visibility reference customer, could be the catalysts to rapid growth for DSS.

- DSS has a uniquely structured IP enforcement business that has seven different actions in process in areas of LED and Bluetooth technology that could be monetized in the next few years. Its biggest potential win is a suit against Apple for Bluetooth technology, which is used in virtually all its products. The company is now awaiting results of its Markman and a trial date. The company has recently restructured its IP enforcement efforts to avoid costs while allowing it to participate in the upside of successful monetization events.

- The company trades at an enterprise value of $16 million, which is only 0.9 times EV to its trailing 12-month sales, and we believe the stock has considerable upside should the company begin to show signs of growth. Based on metrics of its peer group, **we believe it is worth $2.11 per share** using a blended average EV/sales of 1.7 times and an estimate of $21.0 million in sales in 2019. Any upside from the successful resolution of its IP enforcement efforts has not been factored into this valuation and adds considerable incremental potential for shareholders. Near term we believe announcements of new customer wins could drive the stock.

RISKS

- In 2017 two customers, Walgreens and Shutterfly were responsible for 46% of revenues. For the first half of 2018 they were 38% of revenues: one being 24% and the other 14%. Loss of either customer would affect results significantly.

- DSS is small and not profitable and potential customers may be hesitant to do business with it particularly when implementing long term solutions due to its financial situation and limited resources.

- The company bases a lot of its potential on the success of its new AuthentiGuard product. While being competitively superior in price and capability compared with alternative solutions, it has not yet gotten traction with customers. Future growth will depend of the success of marketing to convince manufacturers to take a chance an implement its new technology.

- The company is not currently profitable and as such, has limited resources to fund growth initiatives.

- The stock trades based on the company's progress in its lawsuits against various companies in it IP enforcement efforts. It lawsuits, and primarily the one against Apple, will drive events that is expected to affect the stock price.

STATUS OF LITIGATION

Company	Date and Location	Status	Patent numbers
Apple	Case originally filed in the United States District Court for the Eastern District of Texas on November 26, 2013. The case is currently pending in the United States District Court for the Northern District of California	Stay lifted July 27, 2018. Markman held, awaiting results. (Bluetooth)	6,128,290
Seoul Semiconductor	United States District Court for the Central District of California, on June 7, 2017	IPR's pending with PTAB	6949771, 7256486, 7524087
Everlight	United States District Court for the Central District of California on June 8, 2017	IPR's pending with PTAB	7256486, 7524087, 6949771, 7919787
Cree	United States District Court for the Central District of California on June 8, 2017	IPR's pending with PTAB	7256486, 7524087, 6949771
Lite-On	United States District Court for the Central District of California on August 15, 2017	Lite-On has not filed IPRs.	6949771, 7524087, 7256486
Nichia	United States District Court for the Central District of California on December 7, 2017	IPR's pending with PTAB	7919787, 7652297, 6949771, 7256486

FINANCIALS

Forecasts

2018 Year

While DSS is making progress and has a large pipeline of prospects, we do not expect to see this reflected in revenues in the next two quarters. This year we expect somewhat flat revenues that could total $18.5 million close to 2017 revenues. The operating margin is expected to decline as the company increases spending on *AuthentiGuard* development and marketing and production capacity. With the one time gain, we expect the company to report a profit of $1.9 million or $0.11 per share for the year versus a loss of $556,000 and -$0.04 a year ago. Without the one time gain and stock-based compensation the non-GAAP loss is expected to be $1.5 million or $0.09 per share.

2019 Year

The 2019-year should show meaningful revenue growth. Not only should the company have the opportunity to capture more business from Walgreens and Shutterfly, but also revenues will start to ramp with its Fortune 50 customer as the system is implemented throughout its organization. This coupled with sales wins expected from its fertile pipeline should propel the company to a conservative $21 million in revenues for 2019, up 13.3%. While new business should be profitable and at higher margins, we expect the company to continue to spend to grow while keeping EBITDA positive. We estimate a 2019 EPS loss of $0.06 or $957,000.

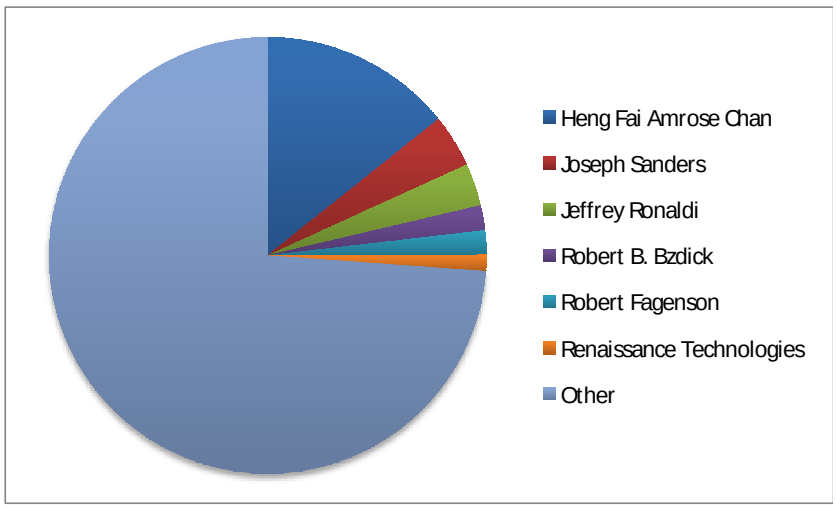
VALUATION

Document Security Systems is comprised of two main businesses with public comparables. Companies that are primarily providers of packaging and printing and those involved in higher margin anti-counterfeiting type solutions. Since in 2019 we expect revenues at DSS to be roughly 90% packaging and 10% anti-counterfeiting, we are using a blended multiple of enterprise value to sales to calculate valuation. As that percent shifts, we expect the multiple to increase proportionally.

Using Applied DNA, Digimarc, and Zebra as the anti-counterfeiting revenue comps and the rest for packaging, we get a blended multiple of 1.7 times EV to sales. Applying that to $21 million in revenues gets an enterprise value of $35.4 million, a market value of $35.5 million and a price per share of $2.11.

		Cal. Revenue			EBIDTA	Enterprise Value / Sales		EV/EBITDA	Included	
Company	Ticker	2018E	LTM	EBITDA	Margin	2018E	LTM		in Average?	Ent. Value
Applied DNA	APDN	$6	$4	-10.2	-265%	5.1x	8.3x	-3.1x	y	32
Brady Corp.	BRC	$1,181	$1,170	178.0	15%	1.7x	1.7x	11.3x	y	2,010
De La Rue	DLAR.L	NA	$494	80.6	16%	NA	1.1x	6.8x	n	545
Digimarc	DMRC	$21	$21	-32.0	-154%	9.1x	9.3x	-6.0x	y	193
Graphic Packaging	GPK	$6,030	$5,630	878.1	16%	1.2x	1.3x	8.3x	y	7,270
Huhtamaki	HUH1V.HE	$3,090	$3,040	385.9	13%	1.1x	1.2x	9.1x	y	3,500
WestRock	WRK	$16,350	$16,110	2700.0	17%	1.0x	1.0x	6.2x	y	16,760
Zebra	ZBRA	$4,150	$3,950	736.0	19%	2.6x	2.8x	14.8x	y	10,910
Average					**-49%**	**3.1x**	**3.7x**			

OWNERSHIP



PROJECTED INCOME STATEMENT

	Mar 31, 2017	Jun. 30, 2017	Sep. 30, 2017	Dec. 31, 2017	Mar 31, 2018	Jun. 30, 2018	Sep. 30, 2018	Dec. 31, 2018E	2016	2017	2018E	2019E
Revenue:						18,495,733						
Printed products	$ 4,403,058	$ 3,382,563	$ 3,767,334	$ 5,473,292	$ 3,923,279	$ 3,724,980	$ 3,783,779	$ 5,578,379	$ 17,277,172	$ 17,026,247	$ 17,010,417	$ 18,500,000
Yr-Yr Growth	10.8%	-9.2%	-15.3%	6.7%	-10.9%	10.1%	0.4%	1.9%	10.0%	-1.5%	-0.1%	8.8%
Technology sales, services and licensing	367,533	477,600	431,356	359,136	454,275	362,081	310,511	400,000	1,900,427	1,635,625	$ 1,526,867	$ 2,500,000
Yr-Yr Growth	1.0%	37.2%	-18.8%	-45.4%	23.6%	-24.2%	-28.0%	11.4%	5.3%	-13.9%	-6.6%	63.7%
Total revenue	**4,770,591**	**3,860,163**	**4,198,690**	**5,832,428**	**4,377,554**	**4,087,061**	**4,094,290**	**5,978,379**	**19,177,599**	**18,661,872**	**18,537,284**	**21,000,000**
Yr-Yr Growth	9.9%	-5.2%	-15.7%	0.8%	-8.2%	5.9%	-2.5%	2.5%	9.6%	-2.7%	-0.7%	13.3%
Costs and expenses:												
Cost of revenue	2,788,350	2,190,901	2,400,883	3,628,748	2,581,615	2,756,447	2,551,782	3,700,000	11,119,780	11,008,882	11,589,844	12,800,000
Gross Margin	1,982,241	1,669,262	1,797,807	2,203,680	1,795,939	1,330,614	1,542,508	2,278,379	8,057,819	7,652,990	6,947,440	8,200,000
Gross Margin %	41.6%	43.2%	42.8%	37.8%	41.0%	32.6%	37.7%	38.1%	42.0%	41.0%	37.5%	39.0%
Selling, general and administrative (including stock based compensation)	1,725,881	1,490,132	1,619,066	1,629,937	1,782,568	1,802,096	1,610,831	1,900,000	7,326,063	6,465,016	7,095,495	7,805,045
Depreciation and amortization	342,774	346,975	352,040	372,049	345,667	346,816	310,330	310,330	1,391,815	1,413,838	1,313,143	1,241,320
Total costs and expenses	2,068,655	1,837,107	1,971,106	2,001,986	2,128,235	2,148,912	1,921,161	2,210,330	8,717,878	7,878,854	8,408,638	9,046,365
Operating (loss) income	(86,414)	(167,845)	(173,299)	201,694	(332,296)	(818,298)	(378,653)	68,049	(660,059)	(225,864)	(1,461,198)	(846,365)
Operating Margin	-1.8%	-4.3%	-4.1%	3.5%	-7.6%	-20.0%	-9.2%	1.1%	-3.4%	-1.2%	-7.9%	-4.0%
Other expense:												
Interest expense, net	(57,600)	(54,801)	(58,164)	(48,547)	(46,064)	(30,735)	(27,246)	(27,246)	(279,214)	(219,112)	(131,291)	(108,984)
Net loss on debt												
Amortized debt discount	(35,288)	(37,144)	(40,854)	(40,856)	(27,731)	(6,168)	(6,168)	(6,168)	0	(154,142)	(46,235)	(2,400)
Gain on extinguishment of liabilities, net	0	0	0	0	0	3,532,659	0	0	0	0	3,532,659	0
Loss before income taxes	(179,302)	(259,790)	(272,317)	112,291	(406,091)	2,677,458	(412,067)	34,635	(939,273)	(599,118)	1,893,935	(957,749)
Income tax expense	4,737	4,737	4,734	(35,170)	0	0	0	0	10,730	(20,962)	0	0
Net loss	(184,039)	(264,527)	(277,051)	147,461	(406,091)	2,677,458	(412,067)	34,635	(950,003)	(578,156)	1,893,935	(957,749)
Other comprehensive loss:												
Foreign currency translation	0	0	0	0	0	0	(5,088)	0				
Interest rate swap gain (loss)	6,899	(1,050)	3,943	12,482	14,889	6,963	(4,458)	0	18,354	22,274	17,394	0
Comprehensive loss:	$ (177,140)	$ (265,577)	$ (273,108)	$ 159,943	$ (391,202)	$ 2,684,421	$ (421,613)	$ 34,635	**$ (931,649)**	**$ (555,882)**	**$ 1,911,329**	**$ (957,749)**
Non-GAAP earnings	(50,232)	(206,974)	(265,300)	159,212	(404,840)	(770,201)	(392,067)	119,635	(950,003)	(578,156)	(1,460,246)	(617,749)
Non-GAAP EPS	$ (0.00)	$ (0.02)	$ (0.02)	$ 0.01	$ (0.02)	$ (0.05)	$ (0.02)	$ 0.01	$ (0.07)	$ (0.04)	$ (0.09)	$ (0.04)
Basic and diluted loss per share	**$ (0.01)**	**$ (0.02)**	**$ (0.02)**	**$ 0.01**	**$ (0.01)**	**$ 0.16**	**$ (0.02)**	**$ 0.00**	**$ (0.07)**	**$ (0.04)**	**$ 0.11**	**$ (0.06)**
Yr-Yr Growth	-80.0%	0.0%	1642.6%	-1088.3%	0.0%	-896.9%	0.0%	-84.0%	-94.2%	-44.9%	-392.1%	-150.6%
Basic shares outstanding	13,624,522	13,664,503	14,087,849	14,100,000	16,599,327	16,599,327	16,767,992	16,813,613	13,068,329	14,424,344	16,695,065	16,813,613
Diluted shares						16,842,204	18,980,992	19,026,613			16,978,065	19,026,613

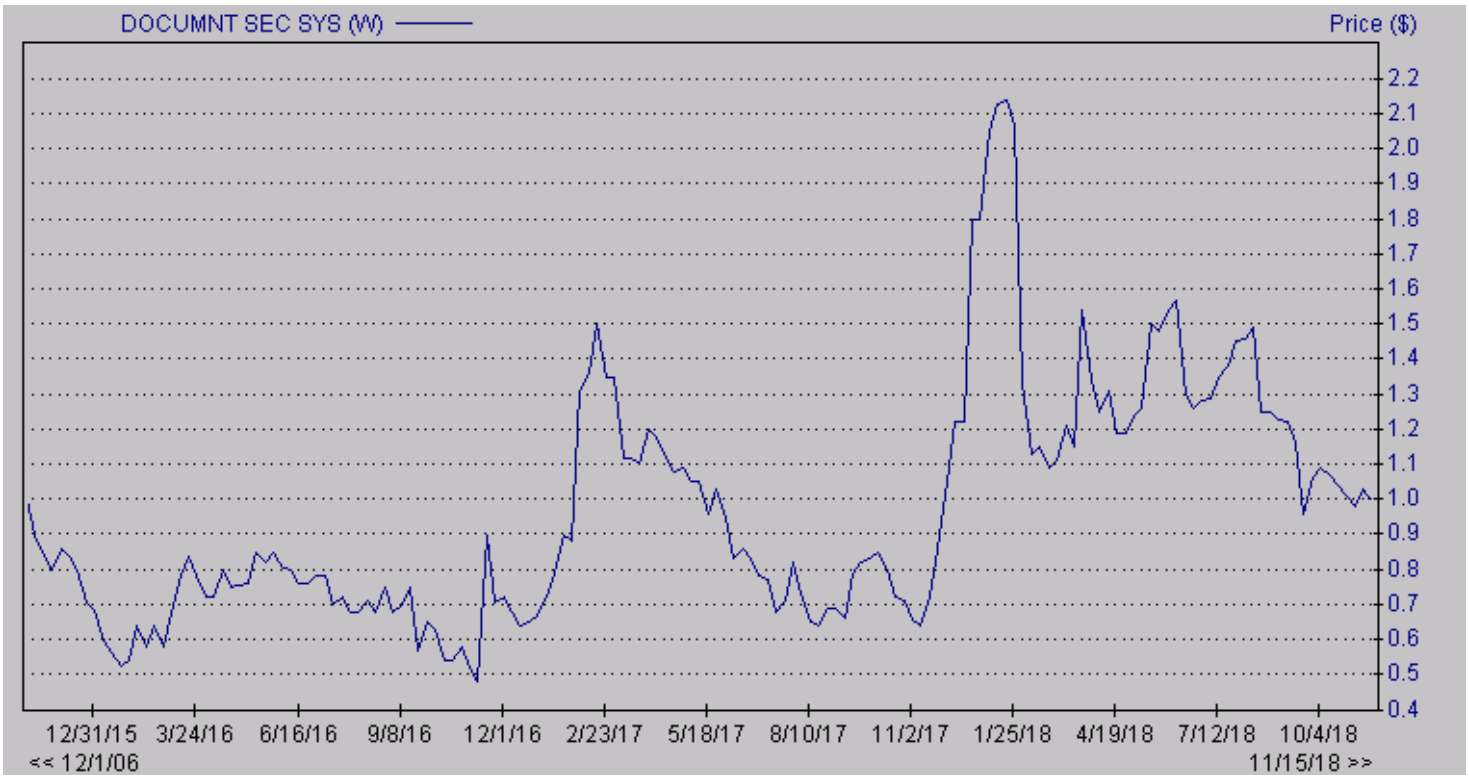
CASH FLOWS

	March 31, 2017	June 30, 2017	Sept. 30, 2017	Dec. 31, 2017	2017	March 31, 2018	June 30, 2018	Sept. 30, 2018
Cash flows from operating activities:								
Net income (loss)	$ (184,039)	$ (264,527)	$ (277,051)	$ 147,461	$ (578,156)	$ (406,091)	$ 2,677,458	$ (412,067)
Adjustments to reconcile net income (loss) to net cash used by operating activities:								
Depreciation and amortization	342,774	346,975	352,040	372,049	1,413,838	345,667	346,816	310,330
Stock based compensation	133,807	57,553	11,751	11,751	214,862	1,251	84,922	20,444
Paid in-kind interest	18,000	18,000	18,000	18,000	72,000	12,000	0	0
Change in deferred tax provision	4737	4,737	4,737	66,152	80,363	0	0	0
Amortization of deferred financing costs	35,288	37,144	40,854	40,856	154,142	27,731	6,168	6,168
Gain on extinguishment of liabilities, net	0	0	0	(219,364)	(219,364)	0	(3,532,659)	0
Decrease (increase) in assets:								
Accounts receivable	(133,989)	150,604	75,361	(226,279)	(134,303)	25,689	92,802	(10,783)
Inventory	2,854	(320,356)	(389,233)	261,866	(444,869)	51,699	237,814	(580,842)
Prepaid expenses and other current assets	(27,076)	79,572	18,342	(19,429)	51,409	13,329	(41,100)	(27,603)
Restricted cash	0	0	(158,563)	80,167	(78,396)	0	0	0
Increase (decrease) in liabilities:								
Accounts payable	(419,482)	(26,108)	(61,159)	(386,682)	(893,431)	188,795	115,112	458,497
Accrued expenses	(259,678)	(2,513)	(605,511)	806,911	(60,791)	(103,928)	13,610	(303,852)
Other liabilities	0	(393,842)	393,842	(944,834)	(944,834)	(249,594)	(357,334)	(535,001)
Net cash used by operating activities	(486,804)	(312,761)	(576,590)	8,625	(1,367,530)	(93,452)	(356,391)	(1,074,709)
Cash flows from investing activities:								
Purchase of property, plant and equipment	(66,206)	(299,453)	(72,691)	(520,469)	(958,819)	(132,937)	(178,465)	(214,849)
Purchase of intangible assets	(4,949)	46	0	(6,649)	(11,552)	(15,780)	(4,357)	(25,334)
Net cash used by investing activities	(71,155)	(299,407)	(72,691)	(527,118)	(970,371)	(148,717)	(182,822)	(240,183)
Cash flows from financing activities:								
Payments of long-term debt	(203,647)	(204,001)	(204,771)	(205,913)	(818,332)	(206,542)	(551,760)	(207,775)
Borrowing from eqt line of credit	0	0	0	522,000	522,000	0	0	87,703
Issuance of common stock, net	0	0	783,094	168,024	951,118	0	0	300,000
Subscription receivable, net	0	0	0	0	0	288,000	0	0
Net cash used by financing activities	(203,647)	(204,001)	578,323	484,111	654,786	81,458	(551,760)	179,928
Net decrease in cash	(761,606)	(816,169)	(70,958)	(34,382)	(1,683,115)	(160,711)	(1,090,973)	(1,134,964)
Cash and restricted cash at beginning of period	6,049,347	5,287,741	4,471,572	4,400,614	6,049,347	4,444,628	4,283,917	3,192,944
Cash and restricted cash at end of period	$ 5,287,741	$ 4,471,572	$ 4,400,614	$ 4,366,232	$ 4,366,232	$ 4,283,917	$ 3,192,944	$ 2,057,980
Operating Cash Flow	$ 350,567	$ 199,882	$ 150,331	$ 436,905	$ 1,137,685	$ (19,442)	$ (417,295)	$ (75,125)
Free Cash Flow	$ 279,412	$ (99,525)	$ 77,640	$ (90,213)	$ 167,314	$ (168,159)	$ (600,117)	$ (315,308)

BALANCE SHEET

	Sept. 30, 2018	Jun. 30, 2018	Qtr-Qtr Growth	Sept. 30, 2017	Yr-Yr Growth
Current assets:					
Cash	$ 2,051,800	$ 3,051,593	-32.8%	$ 4,223,005	-51.4%
Restricted cash	6,180	141,351	-95.6%	336,172	-98.2%
Accounts receivable, net	1,917,576	1,906,793	0.6%	1,799,005	6.6%
Inventory	1,942,575	1,361,733	42.7%	1,913,111	1.5%
Prepaid expenses & other curr assets	309,755	289,095	7.1%	308,223	0.5%
Total current assets	6,227,886	6,750,565	-7.7%	8,579,516	-27.4%
Property, plant and equipment, net	4,736,113	4,764,223	-0.6%	4,484,284	5.6%
Investment	484,930	484,930	0.0%	484,930	0.0%
Other assets	90,320	83,376	8.3%	45,821	97.1%
Goodwill	2,453,597	2,453,597	0.0%	2,453,597	0.0%
Other intangible assets, net	842,385	605,756	39.1%	1,387,039	-39.3%
Total assets	14,835,231	15,142,447	-2.0%	17,435,187	-14.9%
Current liabilities:					
Accounts payable	1,491,058	1,032,559	44.4%	1,706,607	-12.6%
Accrued expenses & deferred revenue	831,689	986,486	-15.7%	1,012,719	-17.9%
Other current liabilities	2,295,681	2,495,967	-8.0%	2,957,033	-22.4%
Short-term debt	**0**	**0**	0.0%	**3,611,560**	-100.0%
Current portion of long-term debt, net	**796,734**	**624,281**	27.6%	**752,180**	5.9%
Total current liabilities	5,415,162	5,139,293	5.4%	10,040,099	-46.1%
Long-term debt, net	**1,354,264**	**1,640,621**	-17.5%	**1,607,752**	-15.8%
Other long-term liabilities	582,653	783,300	-25.6%	1,624,500	-64.1%
Deferred tax liability, net	125,982	125,982	0.0%	59,830	110.6%
Stockholders' equity					
Common stock	336,272	331,987	1.3%	318,787	5.5%
Additional paid-in capital	107,024,040	106,707,881	0.3%	106,123,997	0.8%
Subscriptions receiv. from related party	0	0	0.0%	(300,000)	-100.0%
Accumulated other comp loss	(5,675)	(1,217)	366.3%	(35,551)	-84.0%
Accumulated deficit	(99,997,467)	(99,585,400)	0.4%	(102,004,227)	-2.0%
Total stockholders' equity	7,357,170	7,453,251	-1.3%	4,103,006	79.3%
Total liabilities and stockholders' equity	14,835,231	$ 15,142,447	-2.0%	$ 17,435,187	-14.9%
Current ratio	1.2	1.3	-12.4%	0.9	34.6%
Quick ratio	0.8	1.0	-24.5%	0.7	19.2%
Working Capital	812,724	1,611,272	-49.6%	(1,460,583)	-155.6%
Net cash	2,051,800	3,051,593	-32.8%	4,223,005	-51.4%
Debt	2,150,998	2,264,902	-5.0%	5,971,492	-64.0%
Debt/TA	14%	15%	-3.1%	34%	-57.7%

HISTORICAL STOCK PRICE



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