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Zacks Small-Cap Research

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POET Technologies Inc. (OTCQX: POETF)

POET Adds a New Customer and Makes Progress Toward Prototypes

Given its unique product offering and large TAM we believe POET shares are worth $2.13 based on peer multiples given no further equity dilution than forecast.

Current Price (11/20/20)	US$0.36
Valuation	**US$2.13**

OUTLOOK

POET Technologies is a startup seeking to disrupt the photonics industry with a new design that eliminates parts of an optical transceiver and replaces them with a single integrated device which is smaller, cheaper and faster than the current solutions. It recently announced a $50M joint venture with Sanan IC to make and sell optical engines to data centers and telecom. Its solution can be produced in a fab, eliminating costly manual steps, and allowing it to be easily produced in large quantities. We believe POET's platform can be applied to many other large photonics markets including high speed computing, co-packaged optics, augmented reality, LIDAR, and the Internet of Things.

SUMMARY DATA

52-Week High	**$0.47**
52-Week Low	**$0.17**
One-Year Return (%)	**47.8**
Beta	**0.8**
Average Daily Volume (sh)	**93,556**
Shares Outstanding (mil)	**294**
Market Capitalization ($mil)	**$106**
Short Interest Ratio (days)	**1.1**
Institutional Ownership (%)	**0**
Insider Ownership (%)	**0**
Annual Cash Dividend	**$0.00**
Dividend Yield (%)	**0.00**
5-Yr. Historical Growth Rates	
Sales (%)	**N/A**
Earnings Per Share (%)	**N/A**
Dividend (%)	**N/A**
P/E using TTM EPS	**N/M**
P/E using 2020 Estimate	**N/M**
P/E using 2021 Estimate	**N/M**

Risk Level	**Above Average**
Type of Stock	**Small-Growth**
Industry	**Elec Comp-Semis**

ZACKS ESTIMATES

Revenue
(in millions of US$)

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2018	$0.0 A	$0.0 A	$0.0 A	$0.0 A	$0.0 A
2019	$0.0 A	$0.0 A	$0.0 A	$0.0 A	$0.0 A
2020	$0.0 A	$0.0 A	$0.0 A	$0.0 E	$0.0 E
2021					$5.0 E

Earnings Per Share

	Q1 (Mar)	Q2 (Jun)	Q3 (Sep)	Q4 (Dec)	Year (Dec)
2018	-$0.01 A	-$0.02 A	-$0.02 A	-$0.01 A	-$0.06 A
2019	-$0.01 A	-$0.01 A	-$0.01 A	$0.03 E	$0.00 E
2020	-$0.01 A	-$0.02 A	-$0.01 A	-$0.01 E	-$0.06 E
2021					-$0.06 E

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WHAT'S NEW

While the most important milestone for POET since Q2 ended was the signing of its joint venture with Xiamen Sanan Integrated Circuit, in Q3 2020 the company made other progress. During the quarter POET announced it has signed a deal with a European optical systems company with global operations for a 400G data center application. This company is a leading provider of optical networking systems for data center and enterprise applications. The contract includes a small amount of NRE funding to design optical engines based on the POET Optical Interposer for a 400G application, along with a purchase order for initial production units. We expect the company to book revenues from this deal Q1 and ship initial units starting in June.

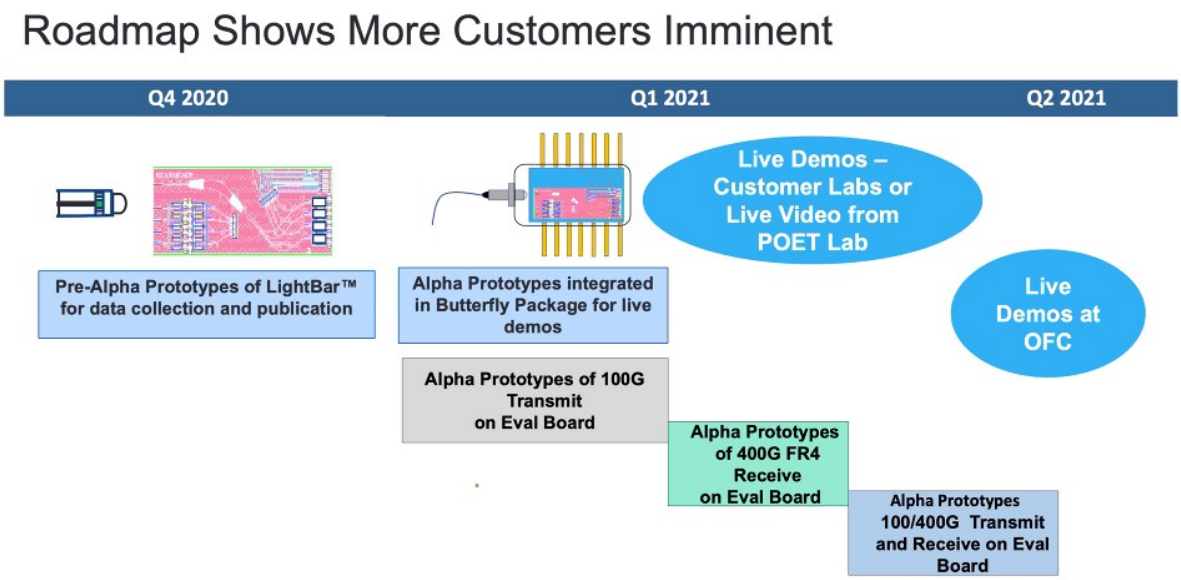
Management said it made extraordinary progress on its optical interposer platform, which showed excellent performance metrics. In October the company announced it has added several new features to its platform and claimed it production ready. These new features include:

- waveguide designs and process integration methods that minimize reflections of laser light within the Optical Interposer platform;
- fiducials that better enable the sub-micron accuracy of automated pick-and-place assembly of lasers and other components mechanically placed on the platform;
- vertical mirrors that extend the platform applicability to top- and bottom-surface-access optical devices, such as top-entry photodetectors, and vertical cavity surface emitting lasers (VCSELs);
- improved spot-size converters that provide efficient coupling of lasers and modulators to waveguides (important for 400G and 800G optical engines);
- the latest generation of low-loss Mach-Zehnder Interferometry ("MZI")-based multiplexers embedded in the waveguides; and
- newly developed IP to efficiently align fiber-attach-units (FAUs) to its optical engines.

In Q4 we expect big technology announcements which will show the company has been able to do what no one has been able to do before and that its products are achieving metrics not previously achieved. This should spur even further interest from industry players.

Roadmap

In 2021, the company will start to take the show on the road, providing prototypes for demonstration and testing purposes. This will all lead up to presenting its solution at the OFC optical conference in June.



Source: POET Technologies

Q3 2020 Earnings Report

POET ended up not booking any NRE revenues in Q3, despite many proposals in the works. In Q3 2020, POET decreased spending slightly in Q3 2020 to $3.3 million versus Q2 2020 if the one-time charge in Q2 of $328,000 is taken of Q2 expenses. With out that expenses only increased $103,000. Spending in Q3 2019 was $2.0 million. Non-cash stock-based compensation was a large part of expenses. In Q3 it was $1.1 million compared to $838,000 in Q3 2019. In Q3 2020, the company paid $244,000 in interest expense, up slightly as debt increased.

The net loss was $3.5 million up from a loss of $2.6 million from continuing operations in Q3 2019. This resulted in an IFRS loss per share of $0.01 per share and a non-IFRS loss of $0.01 per share, the same as last year. Shares outstanding increased 1.5% to 292.6 million. As of November 18, 2020 there were 293.9 million shares outstanding, or 312 million fully diluted.

Balance Sheet

POET Technologies ended the September quarter with $9.4 million in cash and $3.1 million in convertible debentures. Working capital was $4.9 million. If the company burns $2.5 million per quarter, that should get it eleven months of runway even without any revenues. Any revenue from NREs will get it even further.

POET is also expecting that exercisable options that are already in the money could potentially add $6.8 million in cash. As of today, there are 44.4 million warrants outstanding with none in the money under $0.38. There are 26.7 million options outstanding of which, 24.3 million are exercisable and in the money.

KEY POINTS

- The Holy Grail in photonics is cost reduction (through efficiencies in process and materials) combined with lower power consumption. Throw in a smaller size, and higher performance, and customers should beat a path to your door. POET believes it can provide all four with its proprietary “optical interposer” based on a novel low-loss material that can allow multiple components to be integrated into a single package entirely at wafer-scale. What this means is that it can eliminate steps in the labor-intensive assembly process currently used when manufacturing optical transceivers. Manual assembly results in higher scrap rates, longer production times, and higher equipment costs. Also, its base material is far better suited to use in the management of light than silicon due to its lower loss and planar architecture, thus allowing lower powered lasers, resulting in lower power consumption and the ability to use less expensive lasers. POET hopes to disrupt the current market for photonics devices and have its Optical Engine platform become the standard in the industry.

- On October 22nd, POET established a $50 million joint venture with Xiamen Sanan Integrated Circuit Co. Ltd. of Xiamen, China. POET is contributing know how and a license to some of its technology, and Xiamen is contributing intellectual property, capital and production facilities. It will ultimately be 53% owned by Sanan IC and 47% by POET. Its first products will be optical engines to be sold to manufacturers of 100G, 200G, and 400G devices for use in data centers and telecommunications. This joint venture could generate as much as $200-$300 million in revenues per year by 2025 by taking modest market share.

- POET reinvented itself by selling its foundry in Singapore and redeploying the cash to pursue the development of products with higher return on equity due to demand, market growth, and low capital requirements.

- In 2021 will start booking revenues again with the first being from NRE contracts, followed by volume production of product starting at the end of 2021.

- The stock currently trades at a fully diluted enterprise value of US$112 million. The global market for optical transceivers is estimated to be $5.7 billion in 2020 and projected to reach a value of $9.2 billion by 2025, representing a CAGR of 10.0%, according to MarketsandMarkets Research Private Ltd. POET's product is a component of an optical transceiver and market is about a third of the transceiver market. If POET can secure even a small portion of that market with its unique offering, its valuation should far exceed its current price. We believe the stock could be worth $2.13 based on $200 million in revenues in 2025 at 9.2xs EV to Sales, discounted at 30% back to present value.

FINANCIALS

2020

We now expect the company to close out 2020 without revenues. The NRE revenues from the recently booked deal will probably be booked in Q1 2021 rather than in Q4. We are adjusting estimates slightly to account for no revenues at all, although everything else remains on track. We are now looking for a loss of $17 million or $0.06 per share. This is compared to no revenues and a loss of $11.7 million from continuing operations in 2019 or $0.04 per share.

2021

In 2021 we expect the possibility of several million dollars in NREs and the start of production revenues near the tail end of the year. We are starting with what could be a conservative estimate of $5 million, which could increase as we see contracts announced and progress on production. We are looking for a loss of approximately $15 million or $0.06 per share.

VALUATION

POET's business model would make it similar to fabless semiconductor companies. Third parties would provide the production of its devices and we expect it would have margins similar to those companies below. They trade at an average of 9.2xs enterprise value to estimated 2021 revenues. Currently POET trades at an enterprise value of $106 million using a fully diluted share count. We need to look further out to where we think revenues would be by 2025. If we say the joint venture is able to reach $200 million in revenues by then and the rest of the business can ramp to $100 million that would be $200 million in revenues for POET in 2025. Using 9.2xs gives us an enterprise valuation of $1.84 billion, a market value of $1.90 billion or $6.09 per share by 2024 using today's fully diluted share count. This would be a present value of $2.13 per share discounted by 30% per year.

		Cal. Revenue				Enterprise Value / Sales			EV/EBITDA	
Company	Ticker	2021E	2020E	LTM	EBITDA	2021E	2020E	LTM		Ent. Value
AMD	AMD	$11,940	$9,530	$8,650	1,430	8.4x	10.6x	11.7x	70.5x	100,800
Broadcom	AVGO	$25,450	$22,010	$23,200	10,510	7.5x	8.7x	8.2x	18.2x	190,760
Cirrus Logic	CRUS	$1,400	$1,330	$1,240	242	3.1x	3.3x	3.5x	17.9x	4,340
Inphi	IPHI	$801	$683	$598	98	10.1x	11.9x	13.5x	82.9x	8,100
Lightwave Logic	LWLG	NA	NA	$0	(6)	NA	NA	NM	-11.1x	68
Marvell	MRVL	$3,450	$2,960	$2,800	459	8.8x	10.2x	10.8x	66.0x	30,300
MediaTek	2454.TW	NA	NA	$10,162	14,980	NA	NA	10.1x	6.9x	103,000
Monolithic Power Sys	MPWR	$818	$696	$652	127	12.7x	15.0x	16.0x	82.4x	10,430
Novatek	3034.TW	NA	NA	$66,320	10,880	NA	NA	2.2x	13.1x	142,660
NVIDIA	NVDA	$19,730	$16,410	$14,780	4,930	16.2x	19.5x	21.7x	64.9x	320,000
Qualcomm	QCOM	$30,300	$24,800	$23,530	7,620.0	5.6x	6.8x	7.2x	22.3x	169,670
Realtek	2379.TW	NA	NA	$25,320	8,940.0	NA	NA	6.4x	18.1x	162,000
Xilinx	XLNX	$3,331	$3,026	$2,970	936.2	10.4x	10.4x	10.6x	33.6x	31,450
Average						**9.2x**	**10.7x**	**10.2x**	**40.5x**	**106,131**

For the valuation we calculated the company's fully diluted share count using the treasury stock method at **312.1 million fully diluted shares** outstanding.

Warrant and Option Stack
as of November 19, 2020

Expiration	Type	Holder	Ave. Strike Price CAD	Ave. Strike Price USD	Number	Value CAD	Value USD
2021	Options	Employee	$ 0.58	$ 0.44	175,000	$ 101,500	$ 76,125
2022	Options	Employee	$ 0.23	$ 0.17	75,000	$ 17,250	$ 12,938
2024	Options	Employee	$ 0.32	$ 0.24	300,000	$ 96,000	$ 72,000
2026	Options	Employee	$ 0.76	$ 0.57	2,225,000	$ 1,691,000	$ 1,268,250
2027	Options	Employee	$ 0.32	$ 0.24	9,414,688	$ 3,012,700	$ 2,259,525
2028	Options	Employee	$ 0.44	$ 0.33	8,062,771	$ 3,547,619	$ 2,660,714
2029	Options	Employee	$ 0.36	$ 0.27	5,910,671	$ 2,127,842	$ 1,595,881
2030	Options	Employee	$ 0.47	$ 0.35	530,325	$ 249,253	$ 186,940
2021	Warrants	Debenture	$ 0.50	$ 0.38	12,457,500	$ 6,228,750	$ 4,671,563
11/2/21	Warrants	Public Offering	$ 0.52	$ 0.39	31,969,500	$ 16,624,140	$ 12,468,105
					71,120,455	$ 33,696,054	**$ 25,272,040**

Total options	26,693,455	10,843,164	8,132,373
In the money options	24,293,455	9,050,664	6,787,998
Total warrants	44,427,000	22,852,890	17,139,668
In the money warrants	-	-	-
Total in the money	24,293,455	9,050,664	6,787,998
Total options and warrants	71,120,455	33,696,054	25,272,040

Source: POET Technologies

Since POET already qualifies (other than stock price) to uplist to NASDAQ, we believe it may uplist and reverse split sometime in the future when it has hit more milestones and certainly should it need to raise any capital. We do not believe this would happen in 2020 or any time before products are ready to go into large-scale production.

RISKS

- POET is using a startup and has no customers. It may not be able to close customers if its technology does not work or work within needed parameters. It has no revenues and was it to use up its current cash without generating revenues and reaching cash breakeven, to would need to raise new capital from investors, which could dilute current shareholders.

- Many potential customers may be hesitant to so business with a small, money losing start up, making market penetration even more difficult.

- Many of the employees work in states that have shut down businesses and travel and have had to work from home. They have been unable to go to its lab to continue to research and much of marketing efforts have been hindered by the inability to travel. It is not known when California, Pennsylvania, or New Jersey will lift their restrictions.

- The joint venture may take longer to book sales, ramp slower or produce less than expected sales and profits.

OWNERSHIP

POET Technologies has no institutional holdings and ownership by management and directors of its common shares is relatively small. However, if we were to take the number of shares plus the options owned by management and directors, and taking out David Lazovsky who is resigning the board, and other employees we get 37.9 million. Using the fully diluted number of shares outstanding (312.1 million), it would show they have a 12.1% interest in the company. The company has no owners with more than five percent of the stock and we believe the largest shareholder has about 2% ownership and is based in Canada. 100% of the stock is in the float and is held by retail investors with the grand majority in Canada. Insiders' ownership of options is shown below:

	Options Held	Ave Price (C$)	Date of Last Grant	New Grants	Total	% of Total Pool**	% of TSO	Shares Held Outright	Options and Shares	% of TSO	Debenture Amounts (CND $)
Management											
Suresh Venkatesan	14,200,000	0.430	6/11/20		14,200,000	24.3%	4.8%	115,000	14,315,000	4.9%	$100,000
Vivek Rajgarhia	4,500,000	0.390	6/11/20		4,500,000	7.7%	1.5%		4,500,000	1.5%	
Thomas Mika	5,050,000	0.450	6/11/20		5,050,000	8.6%	1.7%	100,000	5,150,000	1.8%	$30,000
Kevin Barnes	1,870,000	0.440	6/11/20		1,870,000	3.2%	0.6%	18,000	1,888,000	0.6%	$20,000
Edward Cornejo	1,000,000	0.360	6/11/20		1,000,000	1.7%	0.3%		1,000,000	0.3%	
James Lee	1,200,000	0.360	6/11/20		1,200,000	2.0%	0.4%		1,200,000	0.4%	
Dan Meerovich	1,000,000	0.295	6/11/20		1,000,000	1.7%	0.3%		1,000,000	0.3%	
Other Employees	8,770,000	0.330			8,770,000	15.0%	3.0%		8,770,000	3.0%	
Sub-total Mgmt	37,590,000			-	37,590,000	64.2%	12.8%	233,000	37,823,000	12.9%	$150,000
Board of Directors											
Chris Tsiofas	2,058,954		6/11/20		2,058,954	3.5%	0.7%	25,000	2,083,954	0.7%	$100,000
Dave Lazovsky	5,263,821		6/11/20		5,263,821	9.0%	1.8%	181,000	5,444,821	1.9%	
Don Listwin	1,544,241		6/11/20		1,544,241	2.6%	0.5%	632,250	2,176,491	0.7%	$100,000
Jean-Louis Malinge	1,548,355		6/11/20		1,548,355	2.6%	0.5%		1,548,355	0.5%	$70,000
Mohan Warrior	1,735,855		6/11/20		1,735,855	3.0%	0.6%		1,735,855	0.6%	$70,000
Peter Charbonneu	1,326,916		6/11/20		1,326,916	2.3%	0.5%		1,326,916	0.5%	$100,000
Sub-total Board	13,478,142			-	13,478,142	23.0%	4.6%	838,250	14,316,392	4.9%	$440,000
	51,068,142		**Totals**	**-**	**51,068,142**	**87.2%**	**17.4%**	**1,071,250**	**52,139,392**	**17.7%**	**$590,000**
Total without Lazovsky & other	37,034,321								37,924,571		
**Based on pool as of last AGM	58,538,554		20%								
TSO	293,925,525										

Source: POET Technologies

INCOME STATEMENT

	Q1 19	Q2 19	Q3 19	Q4 19	Q1 20R	Q2 20	Q3 20	Q4 20E	2019	2020E	2021E
Revenue	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$ 5,000,000**
Cost of revenue	0	0	0	0	0	0	0	0	0	0	0
Gross margin	0	0	0	0	0	0	0	0	0	0	5,000,000
Gross margin %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Operating expenses											
Selling, marketing and administration	1,524,873	1,484,440	1,738,310	1,947,190	2,049,383	2,248,009	1,950,926	2,000,000	6,697,387	8,248,318	10,000,000
Research and development	302,254	497,023	450,297	836,815	1,419,744	1,250,475	1,303,632	1,303,632	2,083,815	5,277,483	4,500,000
Operating expenses	1,827,127	1,981,463	2,188,607	2,784,005	3,467,765	3,479,941	3,254,558	3,303,632	8,781,202	13,525,801	14,500,000
Operating income	(1,827,127)	(1,981,463)	(2,188,607)	(2,784,005)	(3,467,765)	(3,479,941)	(3,254,558)	(3,303,632)	(8,781,202)	(13,525,801)	(9,500,000)
Interest expense	(3,244)	197,540	320,794	301,577	216,684	228,591	243,805	250,000	819,911	939,080	400,000
Other income, including interest	0	(1,579)	(40)	(5,677)	(1,362)	(18,543)	(13,910)	(6,910)	(10,540)	(40,725)	(27,000)
Amortization of debt issuance cost		101,901	124,522	145,917	0	0	0	0	372,340	0	0
Impariment and other loss	0	0	0	1,764,459	0	2,500,000	0	0	1,764,459	2,500,000	0
Loss from continuing operations	(1,823,883)	(2,279,325)	(2,633,883)	4,990,281	(3,683,087)	(6,208,532)	(3,484,453)	(3,303,632)	(9,962,913)	(16,924,156)	(14,900,000)
Loss from discontinued operations	(858,659)	(1,500,553)	(310,332)	(8,151,301)	0	0	0	0	5,481,757	0	0
Pretax loss from operations	**(2,682,542)**	**(3,779,878)**	**(2,944,215)**	**3,746,500**	**(3,683,087)**	**(6,208,532)**	**(3,484,453)**	**(3,303,632)**	**(6,245,615)**	**(16,924,156)**	**(14,900,000)**
Income tax recovery	0	0	0	(292,740)	0	0	0	0	(292,740)	0	0
Profit before joint venture	(2,682,542)	(3,779,878)	(2,944,215)	3,453,760	(3,683,087)	(6,208,532)	(3,484,453)	(3,303,632)	(5,952,875)	(16,924,156)	(14,900,000)
Income from joint venture	0	0	0	0	0	0	0	(100,000)	0	(100,000)	(1,500,000)
Net loss	(2,682,542)	(3,779,878)	(2,944,215)	(3,453,760)	(3,683,087)	(6,208,532)	(3,484,453)	(3,403,632)	(5,952,875)	(17,024,156)	(16,400,000)
Non-GAAP net loss	(1,960,215)	(3,095,017)	(2,106,577)	(1,045,986)	(2,906,304)	(2,534,047)	(2,388,440)	(2,603,632)	(4,188,416)	(10,435,748)	(12,500,000)
Basic and diluted net loss per share	$ (0.01)	$ (0.01)	$ (0.01)	$ (0.01)	$ (0.01)	$ (0.02)	$ (0.01)	$ (0.01)	$ (0.02)	$ (0.06)	$ (0.06)
Loss per share from cont. operations	$ (0.01)	$ (0.01)	$ (0.01)	$ 0.02	$ (0.01)	$ (0.02)	$ (0.01)	$ (0.01)	$ (0.03)	$ (0.06)	$ (0.06)
Yr-to-yr growth					101.0%	169.5%	30.4%	-164.9%	36.3%	68.8%	-3.7%
Non-GAAP loss per share	(0.01)	(0.01)	(0.01)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.04)	(0.04)
Share outstanding (millions)	288.1	288.1	288.3	288.3	289.4	291.2	292.6	293.9	288.2	291.8	292.0
Yr-to-yr growth					0.5%	1.1%	1.5%	1.9%	2.2%	1.2%	0.1%

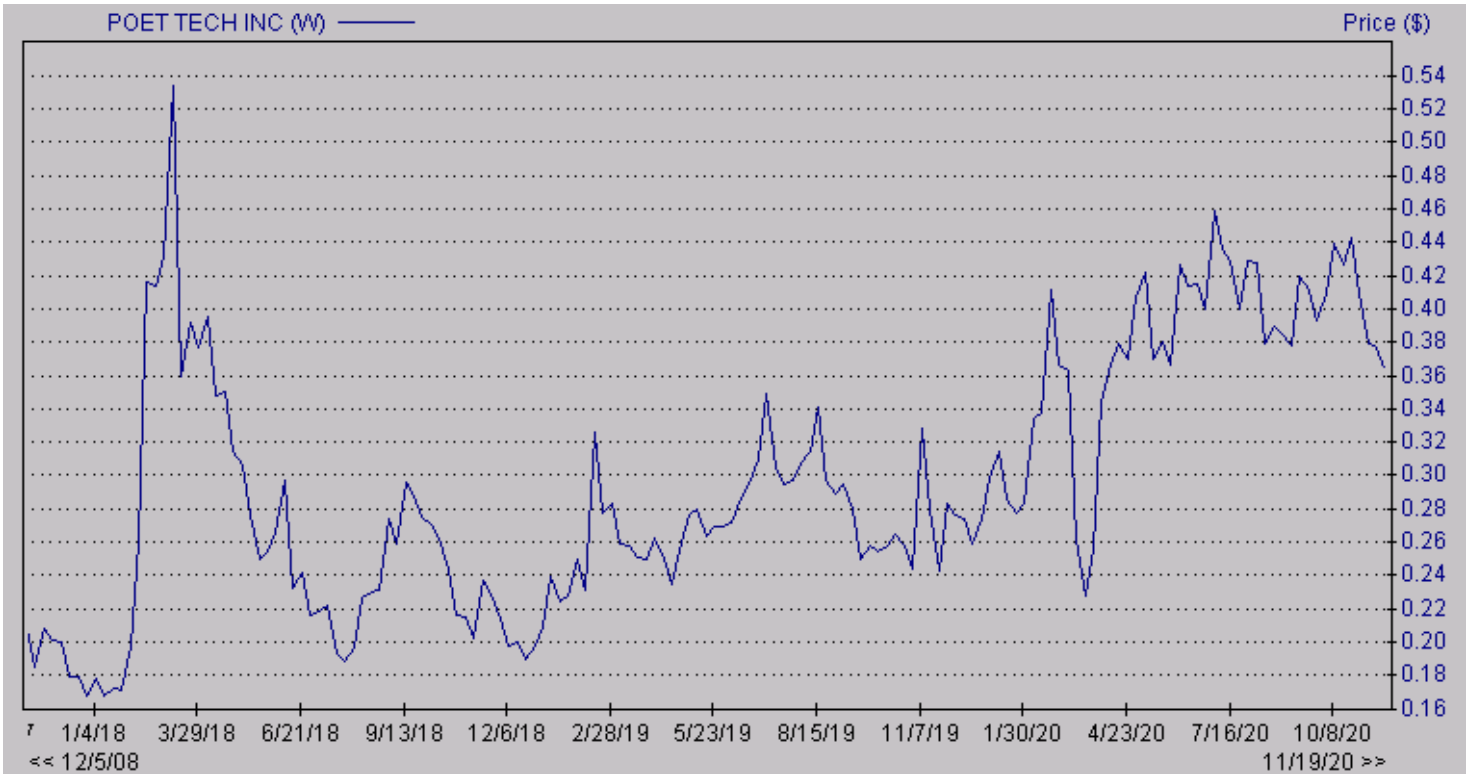
BALANCE SHEET

	Sept 30, 2020	June 30, 2020	Qtr-Qtr % Growth	Dec. 31, 2019	Nine Mon. % Growth
Current					
Cash and cash equivalents	**$ 9,445,015**	**$ 11,895,907**	-21%	**$ 1,428,129**	561%
Accounts receivable	0	1,000,000	-100%	18,000,000	-100%
Prepaids and other current assets	128,406	269,038	-52%	831,265	-85%
Current Assets	9,573,421	13,164,945	-27%	20,259,394	-53%
Property and equipment	4,120,639	3,570,678	15%	3,143,060	31%
Patents and licenses	426,073	443,658	-4%	452,384	-6%
Right of use asset	355,564	384,083	-7%	222,517	60%
Total Assets	14,475,697	17,563,364	-18%	24,077,355	-40%
Liabilities					
Accounts payable and accrued liabilities	1,418,074	2,394,443	-41%	1,725,708	-18%
Covid-19 government support loans	46,687	46,687	0%	0	NM
Lease liability	107,348	107,348	0%	90,504	19%
Convertible debentures	**3,107,055**	**2,946,180**	5%	**3,089,033**	1%
Current Liabilities	4,679,164	5,494,658	-15%	4,905,245	-5%
Non-current covid-19 govt support loans	170,092	169,520	0%	0	NM
Lease liability	254,451	283,853	-10%	133,254	91%
	5,103,707	5,948,031	-14%	5,038,499	1%
Shareholders' Equity					
Share capital	113,647,622	113,266,706	0%	112,144,172	1%
Equity component of loan payable	571,185	576,223	-1%	627,511	-9%
Warrants & comp options	7,916,623	7,940,842	0%	8,525,358	-7%
Contributed surplus	41,508,443	40,533,864	2%	38,799,337	7%
Accumulated other comprehensive loss	(1,962,326)	(1,877,197)	5%	(1,908,715)	3%
Deficit	(152,309,557)	(148,825,104)	2%	(139,148,807)	9%
Shareholder's Equity	9,371,990	11,615,334	-19%	19,038,856	-51%
Tot Liabilities and Share. Equity	$ 14,475,697	$ 17,563,365	-18%	$ 24,077,355	-40%
Cash	$ 9,445,015	$ 11,895,907	-21%	$ 1,428,129	561%
Cash per share	0.03	0.04	-21%	0.00	552%
Current ratio	2.0	2.4	-15%	4.1	-50%
Working capital	4,894,257	7,670,287	-36%	15,354,149	-68%
Debt	3,107,055	2,946,180	5%	3,089,033	1%
Debt/total assets	21.5%	16.8%	28%	12.8%	67%

CASH FLOWS

US Dollars	Mar. 31, 2019	Jun. 30, 2019	Sep. 30, 2019	Dec. 31, 2019	2019	Mar. 31, 2020	Jun. 30, 2020	Sep. 30, 2020
OPERATING ACTIVITIES								
Net loss	$ (2,682,542)	$ (3,779,878)	$ (2,944,215)	$ 3,453,760	$ (5,952,875)	$ (3,467,765)	$ (6,208,532)	$ (3,484,453)
Discontinued operations, net	858,659	1,500,553	310,332	(8,151,301)	(5,481,757)	0	0	0
Net loss, continuing operations	(1,823,883)	(2,279,325)	(2,633,883)	(4,697,541)	(11,434,632)	(3,467,765)	(6,208,532)	(3,484,453)
Adjustments for:								
Depreciation of property and equipment	33,513	19,358	18,309	95,162	166,342	134,088	141,677	158,230
Amortization of patents and licenses	14,705	15,438	23,439	8,089	61,671	17,049	17,447	17,585
Amortization of debt issuance costs	0	101,901	124,522	145,917	372,340	0	0	0
Amortization of right of use assets	0	0	0	15,683	15,683	23,180	30,456	31,006
Accretion of debt discount on converts & int.	0	0	0	0	0	108,831	129,378	141,332
Amortization of debt discount	0	62,483	109,977	108,369	280,829	0	0	0
Impairment loss	0	0	0	1,764,459	1,764,459	0	0	0
Stock-based compensation	722,327	684,861	837,638	643,315	2,888,141	776,783	846,485	1,096,013
Income tax recovery	0	0	0	(292,740)	(292,740)	0	0	0
Expected credit loss allowance	0	0	0	0	0	0	2,500,000	0
Gain on lease modification						0	0	0
Net change in non-cash working capital accounts:								
Prepaid and other current assets	28,730	23,881	6,273	(744,551)	(685,667)	586,983	(47,690)	147,664
Accounts payable and accrued liabilities	108,814	192,972	559,544	(440,873)	420,457	(194,610)	916,570	(997,963)
Cash flows from continuing operating activities	(915,794)	(1,178,431)	(954,181)	(3,394,711)	(6,443,117)	(2,015,461)	(1,674,209)	(2,890,586)
Cash flows from discontinued operating activities	(553,920)	(1,721,069)	(387,340)	(288,775)	(2,951,104)	0	0	0
INVESTING ACTIVITIES								
Receivable form sale of discont. operations	0	0	0	0	0	13,000,000	1,500,000	1,000,000
Purchase of property and equipment	0	0	0	(445,678)	(445,678)	(188,082)	(618,093)	(638,367)
Purchase of patents and licenses	0	(40,035)	(7,899)	(17,872)	(65,806)	0	(25,770)	0
Cash flows from investing activities, continuing	0	(40,035)	(7,899)	(463,550)	(511,484)	12,811,918	856,137	361,633
Cash flows from investing activities, discontinued	(153,192)	(1,280,085)	(225,160)	7,567,060	5,908,623	0	0	0
FINANCING ACTIVITIES								
Proceed from convertible debentures, net	0	2,979,779	376,639	(3,569)	3,352,849	0	0	0
Proceeds from loan payable, net	0	2,462,923	990,000	547,077	4,000,000	0	0	0
Proceeds from COVID-19 loans	0	0	0	0	0	0	216,207	0
Repayment of loan payable	0	0	0	(4,000,000)	(4,000,000)	0	0	0
Issue of common shares for cash, net	0	0	60,028	0	60,028	0	361,612	(361,612)
Exercise of warrants and options	0	0	0	0	0	162,258	(162,258)	566,492
Payment of lease liability	0	0	0	(19,162)	(19,162)	(28,325)	(37,993)	(38,673)
Cash flows from financing, continuing activities	0	5,442,702	1,426,667	(3,475,654)	3,393,715	133,933	377,568	166,207
Cash flows from financing, discontinued activities	(46,439)	(98,568)	(83,046)	(30,407)	(258,460)	0	0	0
EFFECT OF EXCHANGE RATE CHANGES ON CASH, Continuing	56,076	8,406	(182,919)	(145,465)	(263,902)	(30,964)	9,642	(88,146)
EFFECT OF EXCHANGE RATE CHANGES ON CASH, Discontinued	651	535	(27,608)	12,412	(14,010)	0	0	0
NET CHANGE IN CASH, Continuing	(859,718)	4,232,642	281,668	(7,479,380)	(3,824,788)	10,899,426	(431,648)	(2,450,892)
NET CHANGE IN CASH, Discontinued	(752,900)	(3,099,187)	(675,220)	7,212,356	2,685,049	0	0	0
CASH AND CASH EQUIVALENTS, beginning	2,567,868	955,250	2,088,705	1,695,153	2,567,868	1,428,129	12,327,555	11,895,907
CASH AND CASH EQUIVALENTS, end	955,250	2,088,705	1,695,153	1,428,129	1,428,129	12,327,555	11,895,907	9,445,015
Cash flow	$ (1,911,997)	$ (2,895,837)	$ (1,830,330)	$ 5,942,014	$ (696,150)	$ (2,407,834)	$ (2,543,089)	$ (2,040,287)
Free cash flow	$ (1,911,997)	$ (2,935,872)	$ (1,838,229)	$ 5,478,464	$ (1,207,634)	$ (2,407,834)	$ (2,568,859)	$ (2,040,287)
Cash flow continuing	(1,053,338)	(1,395,284)	(1,519,998)	(2,209,287)	(6,177,907)	(2,407,834)	(2,543,089)	(2,040,287)
Free cash flow continuing	(1,053,338)	(1,435,319)	(1,527,897)	(2,672,837)	(6,689,391)	10,404,084	(1,686,952)	(1,678,654)

HISTORICAL STOCK PRICE



Source: Zacks Investment Research

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