

December 21, 2018

# Laurion Mineral Exploration Inc. (TSXV: LME, OTCQX: LMEFF) – Focusing on Near-Term Cash Flow Potential

# **Sector/Industry: Junior Mining/Exploration**

www.laurion.ca

#### Market Data (as of December 21, 2018)

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<b>Current Price</b>	C\$0.09			
Fair Value	C\$0.33			
Rating*	BUY			
Risk*	5			
52 Week Range	C\$0.035 - C\$0.11			
Shares O/S	138,892,306			
Market Cap	C\$12.50 mm			
Current Yield	N/A			
P/E (forward)	N/A			
P/B	N/A			
YoY Return	125.0%			
YoY TSXV	-33.8%			

<sup>\*</sup>see back of report for rating and risk definitions.

<sup>\*</sup> All figures in C\$ unless otherwise specified.



### **Highlights**

- Laurion resumed activities this year after almost three years of inactivity on its flagship gold polymetallic Ishkoday property, located in Ontario. Our previous update report was in 2013.
- > In April 2018, the company announced a Letter of Intent ("LOI") with an undisclosed private investment group to develop and process the surface stockpile of its 100% owned Ishkoday property. The investment group participated in \$0.50 million of a \$0.63 million private placement in July 2018, and is expected to invest another \$4.5 million. A definitive agreement has yet to be signed.
- The Ishkoday property has a history of high grade gold production of 17g/t gold from 1936-1942, totaling approximately 73,439 oz of gold and 15,922 oz of silver.
- Laurion has spent \$7.4 million to date, including 40,729 m of diamond drilling, 14,922 samples, and detailed sampling, mapping, geochemical analysis, and ground geophysics.
- A preliminary target deposit estimate (completed in 2011), based on drilling completed on 400 m of one of the 3km trends, indicated potential for 40-50 Mt grading 2.5 g/t gold, 0.5% copper, 3% zinc and 30 g/t silver.
- > The project has an indicated resource (calculated in 2013) of 281,571 tonnes grading 1.14 g/t gold for 10,327 oz on the stockpile and tailings. Focus will be on the initial processing and revenue generation of the stock pile totaling 144,000 tonnes at 1.75g/t gold. A sonic drill program of 20 holes was initiated in September 2018, for the purpose of confirming the grade of stockpile for a Preliminary Economic Assessment ("PEA").
- > In May 2018, LME initiated an 18 month exploration program, with a primary objective to evaluate the bulk mining potential of a gold-silver, and gold-zinc rich polymetallic resource, which extends over a 3 km x 1 km area to validate an open-pit model. Work to date shows an increase in tonnage relative to the 2013 resource estimate.
- According to the company, approximately 59.4% of the shares are held by the CEO and her family.
- We are revising our fair value estimate from \$0.25 to \$0.33 per share.

Key Financial Data (FYE - Dec 31)		
(C\$)	2017	2018 (9 mo)
Cash	\$17,984	\$394,526
Working Capital	-\$858,399	\$18,081
Mineral Assets	-	-
Total Assets	\$20,525	\$520,555
Net Income	-\$306,658	-\$1,516,727
EPS	(0.00)	(0.01)

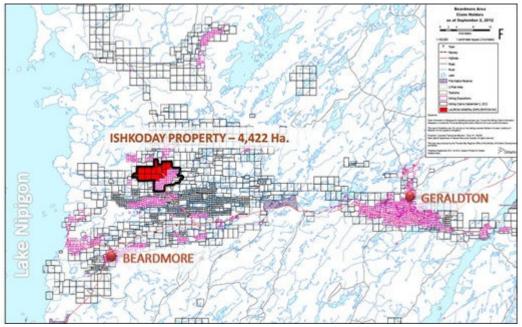


# Project Overview

The Ishkoday property is located in Ontario, Canada in the Geraldton-Beardmore Gold Camp; 220 km northeast of Thunder Bay. A highway connects the property with Beardmore town. The property also has good access to power and water. According to management, the company has all exploration permits in place and excellent relations with all Aboriginal Groups in the region.

# Location of the Property HISTORIC GREENSTONE BELT GOLD PRODUCTION





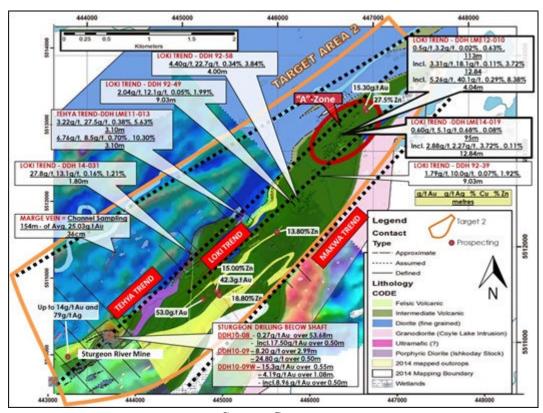
Source: Company

The Beardmore-Geraldton and Onaman-Tashota Greenstone Belts are reported to have produced more than 4.12 million ounces of gold since 1925, from a total of 19 mines. Laurion acquired a 100% interest in the property in 2007, from St. Andrews Goldfields Ltd, and subsequently expanded the land package over the years. The current land package is approximately 44 sq. km.



The Ishkoday property has a history of gold production from 1936-1942 (primarily from the No.3 vein), totaling approximately 73,439 oz of gold (approximately 17 gpt) and 15,922 oz of silver.

Mineralization is located along three distinct sub-parallel trends (the Loki, Tehya and River Trends) in a 1km wide corridor. Each trend is approximately 3 km long. The following map shows the outlines and relative locations of the three main trends;

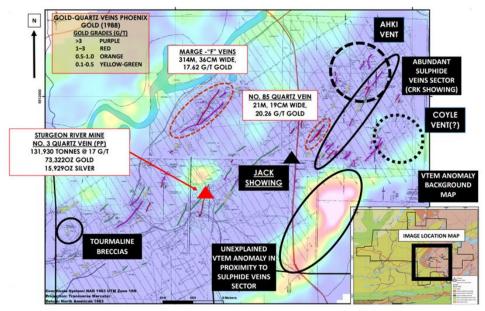


Ishkoday Geology Map Showing Mineralized Structural Trends and Drilling

Source: Company

Mineralization at the property shows two mineralized systems - one gold-silver-rich and the other gold-silver-zinc-copper. The shear zone hosted lode gold was the primary target of exploration on the property resulting in several new gold and polymetallic discoveries. Exploration to date has identified over 120 high grade veins as well as areas with a high potential for gold-rich and polymetallic bearing hosted deposits. The gold hosted quartz veins are concentrated in a southwestern trend of the property, and the gold-rich polymetallic mineralization is dominant in the northeastern section of the property. The following map shows the key target areas:





Source: Company

Approximately 14,922 surface samples have been collected, and approximately **283 diamond drill holes, totaling 40,729m of core**, have been completed, plus detailed sampling, mapping, geochemical analysis, and ground geophysics. The **majority of the drill holes were shallow** (less then 100m vertical depth from surface). The historical mining from the shaft was at a depth of 685 m. LME has completed some deeper drilling that shows the grade and lateral extent of the mineralization is increasing with depth, typical of Archean greenstone belts. The new gold zones intercepted in the deep drilling indicated mineralization hosted in the stockpile. The company believes that the mineralized host rock, and stockpile, may be indicative of the mineralization hosted within the Ishkoday porphyry.

### **Resource / Historic Estimates:**

- A preliminary target deposit estimate (completed in 2011), based on drilling completed on 400 m of one of the 3km trends, indicated potential for 40-50 Mt grading 2.5 g/t gold, 0.5% copper, 3% zinc and 30 g/t silver.
- A NI 43-101 compliant (2013) indicated resource estimate on the stockpile of 144,070 tonnes grading 1.59 g/t gold for 7,383 oz, and on the tailings of 137,501 tonnes grading 0.67 g/t gold for 2,944 oz. **The total indicated resource is 281,571 tonnes grading 1.14 g/t gold for 10,327 oz.** Metallurgical testwork on the stockpile indicated a recovery of 87.5% with gravity recovery and 98% with CIP/CIL, and on the tailings indicated a recovery of 96%.CIP/CIL.



Stock	pile	Resource

Cut-off	Tonnes	Au (g/t)		
Au g/t		Grade (g/t)	Grams (Contained)	Ozs (Contained)
<0.1	144,070	1.59	229,619	7,383
0.1	140,688	1.63	229,619	7,383
0.2	139,821	1.64	229,456	7,378
0.3	138,555	1.65	229,111	7,367
0.4	133,684	1.70	227,435	7,313
0.5	128,603	1.75	225,141	7,239
1.0	96,518	2.08	200,794	6,456

#### Tailings Resource

Cut-off Au	Tonnes	Au (g/t)			
g/t		Grade (g/t) Grams Ozs (Contained) (Contained) (Contained)			
<0.1	137,501	0.67	91,545	2,944	
0.2	137,190	0.67	91,489	2,942	
0.3	130,454	0.69	89,701	2,884	
0.5	78,150	0.87	68,326	2,197	

Source: Company

The stockpile appears to host a significant amount of fine material (<2mm). Sampling work conducted in 2010 showed values of **6.20 g/t gold**, implying potential for higher-grade gold values at the base of the tailings where gold would have percolated from gravity settling.

Current Program In May 2018, the company initiated an 18 month exploration program, with a primary objective to evaluate the bulk mining potential of the project. The company is targeting the quartz and polymetallic vein systems covering 3 km by 1 km towards the southern half of the property. As mentioned earlier, there are over 120 high grade veins identified on the property. The following shows key channel sampling results from surface outcrops.

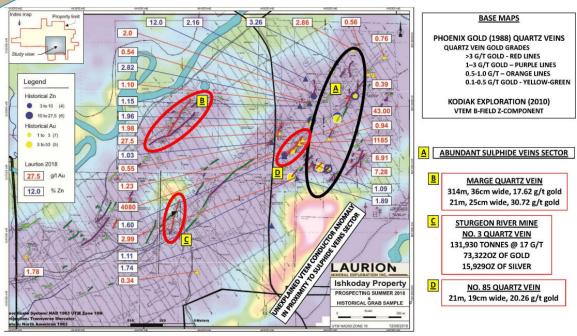
**Historic Channel Sampling and Results** 

Vein	
Marge	314m length, 36cm wide vein graded 17.62 g/t gold
F	21m length, 25cm wide vein yielded 30.72 g/t gold
No. 85	21m length, 19cm wide vein yielded 20.26 g/t gold
A9	35.5m length over a 7.2cm width grading 31.57 g/t gold, VG
A11	21m length over a 9.0cm width grading 105.99 g/t gold, VG
85-A2	53m length over a 22.5cm width grading 14.71 g/t gold
85-A2B	56m length over 13.8cm width grading 21.90 g/t gold
85-A6	56.5m length over 37.2cm width grading 12.86 g/t gold
A6	43m length over 73.5cm width grading 8.33 g/t gold

Source: Company







Source: Company

The company has divided the 18 month program into three stages -1) a field exploration program, 2) determine potential size of the mineralized system, and 3) calculate a resource estimate. An initial field validation exploration program (May to June 2018) included selective geological mapping and prospecting of historic mineralized veins and new areas. LME subsequently completed two trenches of a planned seven trenches.

➤ Trench T18-1 (outcrop coverage 60%), extends 500 m at a right angle to the orientation of geological units, and is located approximately 1km NE of the mine shaft. Of the 468 channel samples taken, 287 (61%) were anomalous in either gold, silver, copper or zinc.



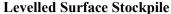
French T18-2 (outcrop coverage 80%), extends 500 m and is located 350 m west of the shaft. Two major vein sets were identified, which is likely the easterly extension of the 85-A2 vein set system (see image above). Of the 475 channel samples taken, 126 (26%) were anomalous in either gold, silver, copper or zinc.

The company is currently conducting surface stripping, channel sampling, and re-logging existing drill cores, to be followed up in Q1-2019 with ground geophysics with an objective to identify anomalies and future drilling areas.

Stockpile Funding Program In April 2018, the company announced a LOI with an undisclosed private investment group to develop the surface stockpile. The investment group participated in \$0.50 million of a \$0.63 million private placement in July 2018. The financing was done at \$0.07 per unit. Each unit consisted of a common share and one full warrant (exercise price of \$0.09 per share for 2 years).

As per the agreement between the two entities, the investment group will provide an additional \$4.5 million in financing, which will be held in escrow until a Preliminary Economic Analysis ("PEA") is completed on the stockpile. In October 2018, a new whollyowned subsidiary ("Ahsineeg Ltd.") of LME was formed exclusively to develop the stockpile. It is estimated that the investment group will hold 49% of the subsidiary. A definitive agreement is yet to be signed.

In October 2018, the company completed a sonic drilling (20 holes) and ancillary work program on the stockpile to complement previous assay and metallurgical testing. TBT Engineering Consulting Group of Thunder Bay, Ontario was retained to evaluate the stockpile. Their preliminary analysis indicated that the specific gravity of the stockpile is likely to be 2.20 to 2.40 t/m3, versus the 2013 estimate of 2.2 t/m3. **This will likely increase the tonnage from 144,070 tonnes to 150,000 to 190,000 tonnes.** 





Source: Company

Upcoming Catalysts

Management has highlighted the following key catalysts in the next 6 - 12 months:

> Completion of assay work from sonic drilling



- Metallurgical testwork for gravity recovery, flotation and leaching
- ➤ Completion of a PEA on the stockpile

Processing of the stockpile will allow the company to not only generate near-term cash flows, but to fund exploration and resource delineation of the property's primary mineralization. Initial work will consist of relogging of drill core, and stripping-sampling existing (and new) gold bearing veins.

# Management / Board

According to the company, the CEO and her family own approximately **59.4% of the shares** – strongly aligning management / board's interest with other investors.

Key Investors	% of Total
Cynthia Le Sueur-Aquin, family and insiders	59.4%
Institutional Investors	7.1%
Retail Investors	33.5%
	100.0%

Source: Company

Brief biographies of the management team and board members, as provided by the company, follow:

# Cynthia Le Sueur-Aquin – President / CEO

Ms. Le Sueur-Aquin has 40 years of mine management experience in the precious metal mining industry. She also has experience in project financing, mining property asset acquisitions and divestitures, corporate legal work and negotiations, company administration and investor relations.

# **Douglas Bolton – CFO**

Mr. Bolton, is a CPA, CA practicing Chartered Accountant with over 40 years of public accounting experience and consulting services to the mining sector.

## Dr. Neil D.S. Westoll – Independent Director

Dr. Westoll brings 45+ years of diverse international experience in the resource exploration and business development, having work with some of the world's largest mining companies, in key management roles such as Mining Practice Leader and later on as an independent consultant.

#### **David Burkes – Independent Director**

Mr. Burkes is a practicing Chartered Accountant and Investigative Forensic Accountant with over 40 years of public accounting experience.

# E. Terry Jensen - Independent Director

Mr. Jensen is a Senior Level Geologist / Hydrogeologist / Project Manager with more than 35+ years of both private and government experience, encompassing technical, and senior management level environmental, hydrogeologic and geologic consulting.



#### **Financials**

At the end of Q3-2018 (ended September 30, 2018), the company had cash of \$0.39 million and working capital of \$0.02 million. We estimate the company had a burn rate (cash spent on general and administrative expenses) of \$39k per month in the first nine months of 2019. In addition, the company spent approximately \$87k per month in project related work. The following table summarizes the company's liquidity position:

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(in C\$)	2017	2018 (9 mo)		
Cash	\$17,984	\$394,526		
Working Capital	-\$858,399	\$18,081		
Current Ratio	0.02	1.04		
LT Debt / Assets	-	-		
Cash from Financing Activities	\$24,000	\$1,289,672		
Monthly Burn Rate (incl. G&A)	-\$24,109	-\$39,245		
Monthly Burn Rate (incl. exploration)	-\$749	-\$87,075		

Data Source: Financial Statements

We estimate LME currently has 10.51 million options (weighted average exercise price of \$0.08 per share) and 19.51 million warrants outstanding (weighted average exercise price of \$0.09 per share). Currently, 5.34 million options and 4.94 million warrants are in-the-money. The company can raise up to \$0.60 million if these options and warrants are exercised.

# Valuation & Rating

As mentioned earlier, Ishkoday has a preliminary target of 40-50 Mt grading 2.5 g/t gold, 0.5% copper, 3% zinc and 30 g/t silver. A 40 Mt resource at 2.5 gpt reflects 3.2 Moz contained gold. If we conservatively value the project at 25% of this target, we arrive at a fair value estimate of \$0.33 per share. This is based on our estimate of an average Enterprise Value ("EV") to resource (100% of measured and indicated + 50% of inferred resources) of \$58.4 per oz of junior gold projects in Ontario / Quebec. We reiterate our BUY rating and raise our fair value estimate from \$0.25 to \$0.33 per share. Note that this valuation is conservative as it does not account for any upside from the potential for copper / zinc / silver.

# Risks

We believe the company is exposed to the following key risks (not exhaustive):

- The value of the company is highly dependent on commodity prices.
- > Exploration and development risks.
- > Potential for share dilution from future financings.
- > The resource estimate used in our valuation is based on preliminary estimates and not NI 43-101 compliant.
- > The company has yet to complete any economic assessment on its projects.

As with most junior resource companies, we rate LME's shares a risk of 5 (Highly Speculative).



#### Fundamental Research Corp. Equity Rating Scale:

 $\mathbf{Buy}$  - Annual expected rate of return exceeds 12% or the expected return is commensurate with risk

Hold – Annual expected rate of return is between 5% and 12%

Sell - Annual expected rate of return is below 5% or the expected return is not commensurate with risk

Suspended or Rating N/A— Coverage and ratings suspended until more information can be obtained from the company regarding recent events.

#### Fundamental Research Corp. Risk Rating Scale:

1 (Low Risk) - The company operates in an industry where it has a strong position (for example a monopoly, high market share etc.) or operates in a regulated industry. The future outlook is stable or positive for the industry. The company generates positive free cash flow and has a history of profitability. The capital structure is conservative with little or no debt.

- 2 (Below Average Risk) The company operates in an industry where the fundamentals and outlook are positive. The industry and company are relatively less sensitive to systematic risk than companies with a Risk Rating of 3. The company has a history of profitability and has demonstrated its ability to generate positive free cash flows (though current free cash flow may be negative due to capital investment). The company's capital structure is conservative with little to modest use of debt.
- 3 (Average Risk) The company operates in an industry that has average sensitivity to systematic risk. The industry may be cyclical. Profits and cash flow are sensitive to economic factors although the company has demonstrated its ability to generate positive earnings and cash flow. Debt use is in line with industry averages, and coverage ratios are sufficient.
- 4 (Speculative) The company has little or no history of generating earnings or cash flow. Debt use is higher. These companies may be in start-up mode or in a turnaround situation. These companies should be considered speculative.
- 5 (Highly Speculative) The company has no history of generating earnings or cash flow. They may operate in a new industry with new, and unproven products may be at the development stage, testing, or seeking regulatory approval. These companies may run into liquidity issues, and may rely on external funding. These stocks are considered highly speculative.

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