

**Recommendation: Buy (S)**  
**Target Price: \$2.00**

## Turmalina Metals Corp. (TBX-TSXV)

### SFdLA Drilling Continues To Hit The Mark

Current Price	\$1.18	Shares Outstanding (MM)	
52 Wk High	\$1.80	Basic	65.8
52 Wk Low	\$0.27	Diluted	77.1
Target Return	69%	CEO	Rohan Wolfe

Cash (MM)	US\$9	Market Cap. (MM)	US\$58
WC (MM)	US\$9	EV (MM)	US\$49
LT Debt (MM)	US\$0		

NAV (model)	\$2.35	NAV (spot)	\$2.84
P/NAV (model)	0.5x	P/NAV(spot)	0.4x

FYE Dec. 31		2025E	2026E	2027E
Sales	Q1	22	19	18
(koz AuEq)	Q2	22	19	18
	Q3	22	19	18
	Q4	22	19	18
	FY	89	74	72
C1 AuEq Cash Cost	FY	\$600	\$625	\$625
(US\$/lb)				

		2025E	2026E	2027E
Consolidated EPS	Q1	\$0.07	\$0.05	\$0.05
(US\$)	Q2	\$0.07	\$0.05	\$0.05
	Q3	\$0.07	\$0.05	\$0.05
	Q4	\$0.07	\$0.05	\$0.05
	FY	\$0.30	\$0.21	\$0.20
Consolidated CFPS	Q1	\$0.14	\$0.11	\$0.10
(US\$)	Q2	\$0.14	\$0.11	\$0.10
	Q3	\$0.14	\$0.11	\$0.10
	Q4	\$0.14	\$0.11	\$0.10
	FY	\$0.56	\$0.42	\$0.39
P/CFPS	FY	1.6x	2.1x	2.2x

#### Company Description:

Turmalina is a gold-copper explorer targeting high-grade tourmaline breccia pipes in Argentina and Peru. A 4,500 m drill program at the flagship San Francisco project in San Juan Province, Argentina is focused on further delineating the SFdLA pipe and testing the greater property package which hosts over 60 breccia targets.

Unless otherwise denoted, all figures shown in C\$

#### Investment Thesis:

Turmalina's flagship San Francisco de Los Andes (SFdLA) breccia, located in San Juan Province, Argentina, is one of the highest-grade tourmaline breccia pipes ever discovered. Limited shallow drilling and channel sampling has returned spectacular grades (2-12 g/t gold and 0.3-3% copper over 20-100+ m intervals)—noting tourmaline breccias are considered to be gold-rich at 1.0 g/t gold, which speaks to the remarkable tenor of said results. The mineralogy and geological setting indicate that only the top of the breccia pipe has been exposed, with excellent potential for lateral growth at depth. Furthermore, SFdLA is only one of over 60 breccia bodies mapped to date on the company's greater San Francisco property package, which spans 3,399 ha. We anticipate additional positive results will garner attention to Turmalina's breccia pipe exploration strategy—a historically overlooked class of high-grade deposits, often lost in the shadow of their larger scale porphyry 'cousins'.

#### Highlights:

- **SFdLA Drilling Returns Additional Positive Results**

Recent drilling at the flagship San Francisco project in San Juan, Argentina, has intersected broad intervals of high-grade gold-silver-copper mineralization at the main SFdLA tourmaline breccia. Drilling in part focused on the roof, margin, and ends (lobes) of the breccia pipe where high-grade mineralization is typically focused. Results are highlighted by hole SFDH-018, which targeted the easternmost lobe of SFdLA, returning 29 m grading 4.2 g/t gold, 222 g/t silver, and 1.4% copper (8.4 g/t AuEq) starting at a downhole depth of 67 m (including 16 m grading 9.2 g/t AuEq). Recent results further confirm Turmalina's SFdLA geological interpretation, which is modelled around classic tourmaline breccia pipe geometry that widens at depth.

- **Exploration Potential Remains Significant At SFdLA**

The latest assay results correspond to the upper ~150 m of the SFdLA breccia pipe. That said, recall that drilling to date has traced said mineralization to ~250 m depth where it remains open and appears to be getting wider. Bottom line, we look favourably on the latest results, which further systematically refine Turmalina's understanding of SFdLA geometry/grade distribution ahead of (very prospective) deeper drilling that stands to garner additional (greater) market attention (noting the company is well funded with \$11.5 MM cash on hand and no debt).

- **Additional Greenfield Drilling Warranted**

On the regional front, two drill holes testing the Humilde breccia pipe, which is located ~2 km to the northwest of SFdLA, intersected sericite-altered and pyrite-rich tourmaline breccia with elevated (albeit uneconomic) gold, silver, and copper grades. Alteration at Humilde is similar to that typically found above/adjacent to mineralized breccia pipes—warranting additional drilling.

Recent drilling at the flagship San Francisco project in San Juan, Argentina, has intersected broad intervals of high-grade gold-silver-copper mineralization at the main San Francisco de Los Andes (SFdLA) tourmaline breccia. **Drilling in part focused on the roof, margin, and ends (lobes) of the breccia pipe where high-grade mineralization is typically focused. Results are highlighted by hole SFDH-018, which targeted the easternmost lobe of SFdLA, returning 29 m grading 4.2 g/t gold, 222 g/t silver, and 1.4% copper (8.4 g/t AuEq) starting at a downhole depth of 67 m (including 16 m grading 9.2 g/t AuEq).** Recent results further confirm Turmalina's SFdLA geological interpretation, which is modelled around classic tourmaline breccia pipe geometry that widens at depth (refer to [September 22, 2020](#), Cormark Research Report). **We look to additional delineation of SFdLA's high-grade margins/lobes (noting assays are pending for three drill holes that tested the westernmost lobe) as well as step-out drilling at depth and laterally to evaluate the pipe's resource potential (noting the company is well funded with \$11.5 MM cash on hand and no debt).** We anticipate additional positive results will garner attention to Turmalina's breccia pipe exploration strategy—a historically overlooked class of high-grade deposits, often lost in the shadow of their larger scale porphyry 'cousins'.

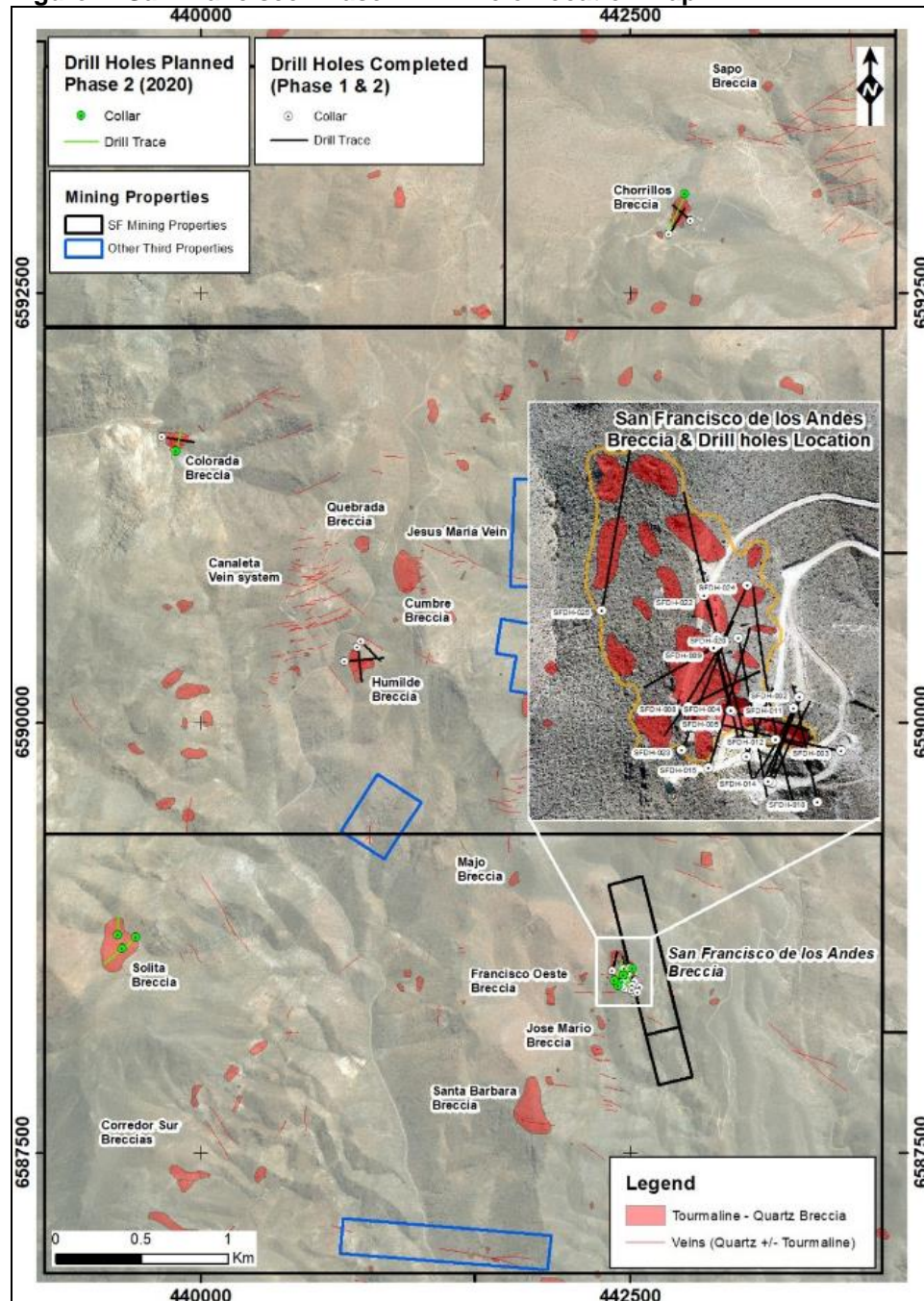
In addition, holes SFDH-014, SFDH-015, and SFDH-020, which tested the centre of SFdLA breccia, intersected (lower grade) matrix-supported breccia mineralization typical of the core of a tourmaline breccia pipe. Notable results include:

- **SFDH-014:** 12 m grading 2.0 g/t gold, 35 g/t silver, and 0.39% copper (2.8 g/t AuEq) starting a downhole depth of 73 m, and 40 m grading 1.3 g/t gold, 83 g/t silver, and 0.43% copper (2.6 g/t AuEq) starting at a downhole depth of 104 m.
- **SFDH-015:** 26 m grading 1.2 g/t gold, 40 g/t silver, and 0.44% copper (2.2 g/t AuEq) starting at a downhole depth of 75 m, and 17 m grading 0.8 g/t gold, 12 g/t silver, and 0.42% copper (1.4 g/t AuEq) starting at a downhole depth of 136 m.
- **SFDH-020:** multiple mineralized subintervals, including 19 m grading 0.8 g/t gold, 118 g/t silver, and 0.38% copper (2.6 g/t AuEq) starting at a downhole depth of 93 m.

**Three additional holes targeted the westernmost lobe of the SFdLA—assay results are pending.** The latest assay results correspond to the upper ~150 m of the SFdLA breccia pipe. That said, recall that drilling to date has traced said mineralization to ~250 m depth where it remains open and appears to be getting wider (refer to [September 22, 2020](#), Cormark Research Report). **Bottom line, we look favourably on the latest results, which further systematically refine Turmalina's understanding of SFdLA geometry/grade distribution ahead of (very prospective) deeper drilling that stands to garner additional (greater) market attention (noting in part our conceptual 1.0 MMoz AuEq model, assumes the development of ~2-3 breccia pipes extending to ~400 m depth [see below]—an arguably conservative target given the open-ended nature of high-grade mineralization at SFdLA and the identification of over 60 other breccia pipe targets to date on the greater property package; several of which are currently being drilled).** Hence, cognizant the market is eager to see deeper high-grade intervals, we view recent share price weakness (stock traded down 10% yesterday on San Francisco's latest assays) as a buying opportunity for risk-tolerant investors with patience given efforts continue to demonstrate significant geologic potential at SFdLA.

Meanwhile, on the regional front, two drill holes testing the Humilde breccia pipe, which is located ~2 km to the northwest of SFdLA, intersected sericite-altered and pyrite-rich tourmaline breccia with elevated (albeit uneconomic) gold, silver, and copper grades (e.g., 1 m grading 1.3 g/t gold, 6.8 g/t silver, and 0.17% copper starting at a downhole depth of 47 m in hole SFDH-019). Alteration at Humilde is similar to that typically found above/adjacent to mineralized breccia pipes—warranting additional drilling. In the meantime, greenfield drilling is focused on the Colorada, Solita, and Chorrillos targets (refer to [September 22, 2020](#), Cormark Research Report).

**Figure 1: San Francisco Phase 2 Drill Hole Location Map**

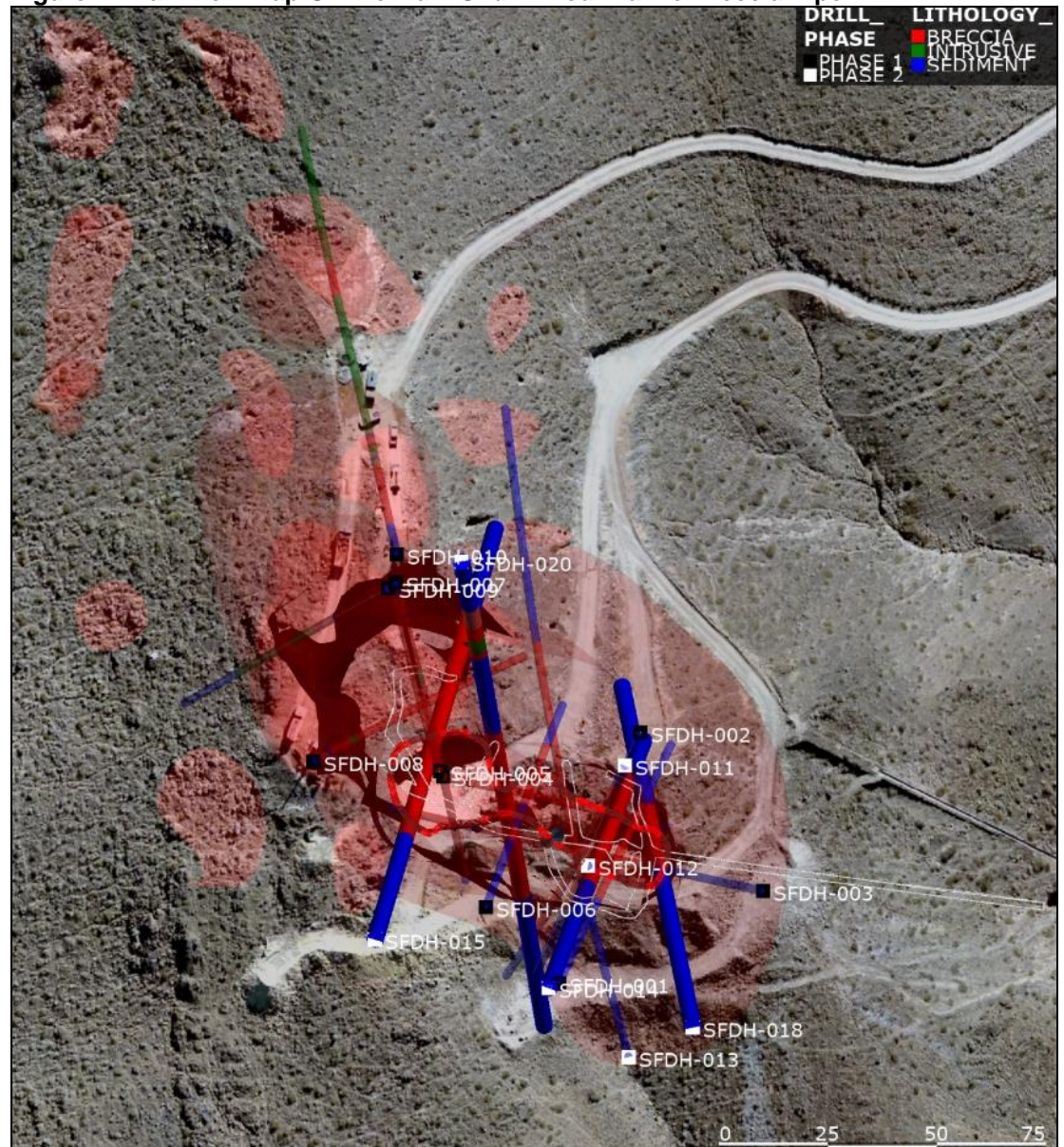


Source: Turmalina Metals Corp.

To date, Turmalina has completed 4,855 m of Phase 2 drilling in 17 holes, 11 of which tested SFdLA and the remaining 6 tested three breccia targets identified during the summer field program. Results from 9 holes have now been received. In the wake of COVID-19, Turmalina is applying rigorous protocols to the company's 2020 field program, which include social distancing, improved hygiene, health screening of all staff and contractors, longer rosters at the remote field camp, and an onsite medical professional to monitor health and ensure pandemic procedures are followed.



**Figure 2: Plan View Map Of The Main SFdLA Tourmaline Breccia Pipe**



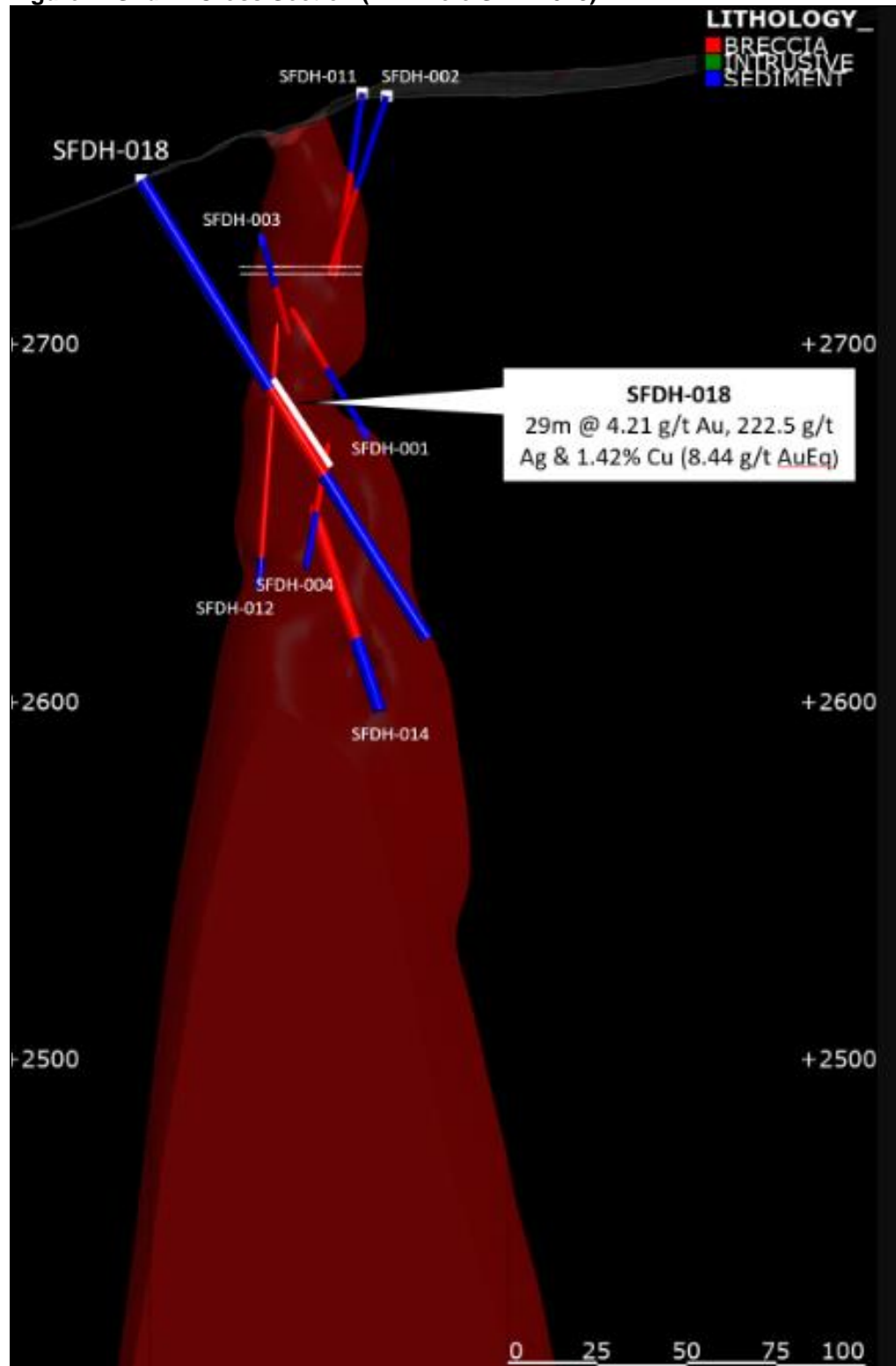
Source: Turmalina Metals Corp.

**Figure 3: Typical High-Grade Breccia Mineralization at SFdLA (hole SFDH-018)**



Source: Turmalina Metals Corp.

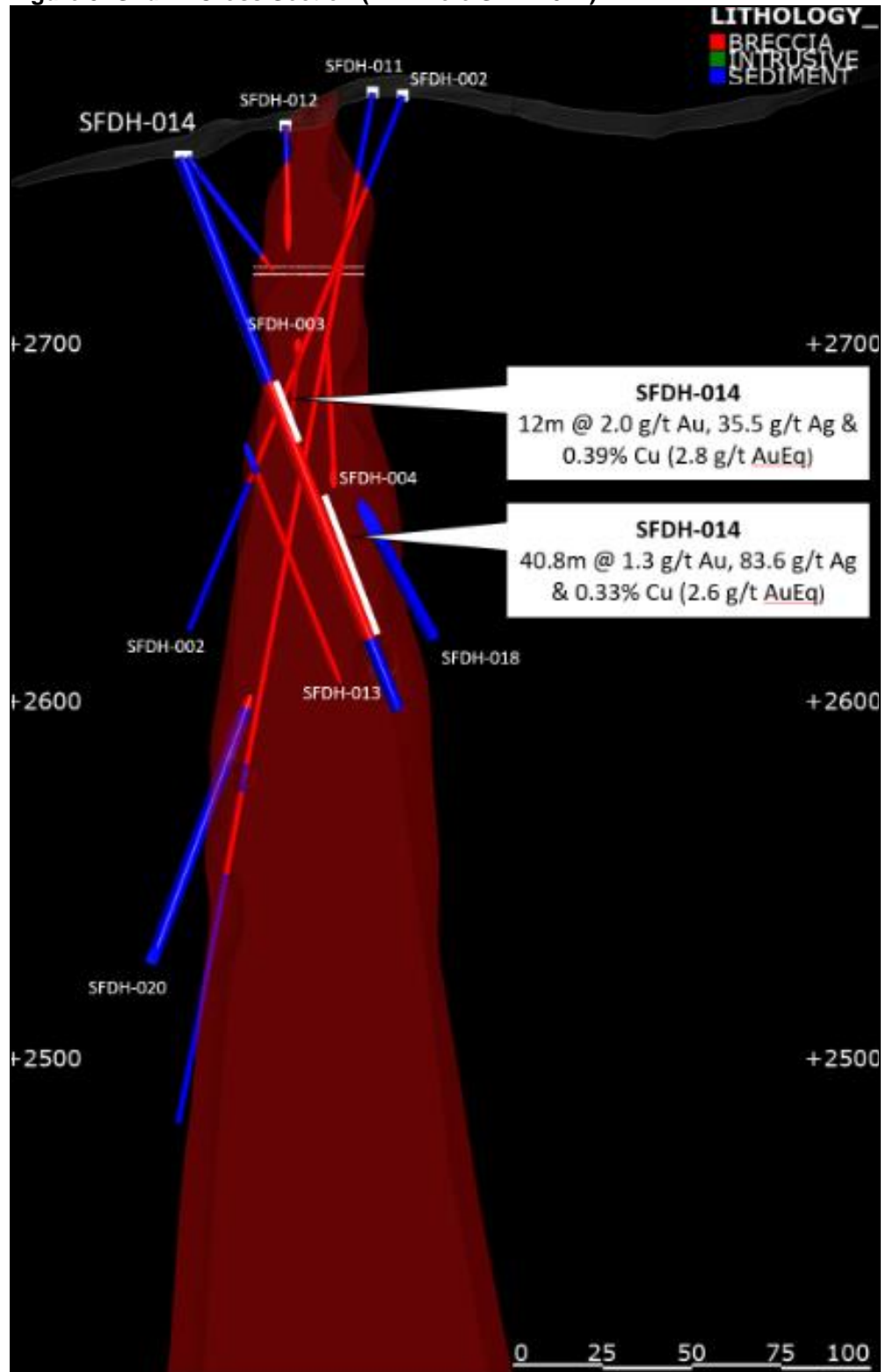
Figure 4: SFdLA Cross Section (Drill Hole SFDH-018)



Source: Turmalina Metals Corp.

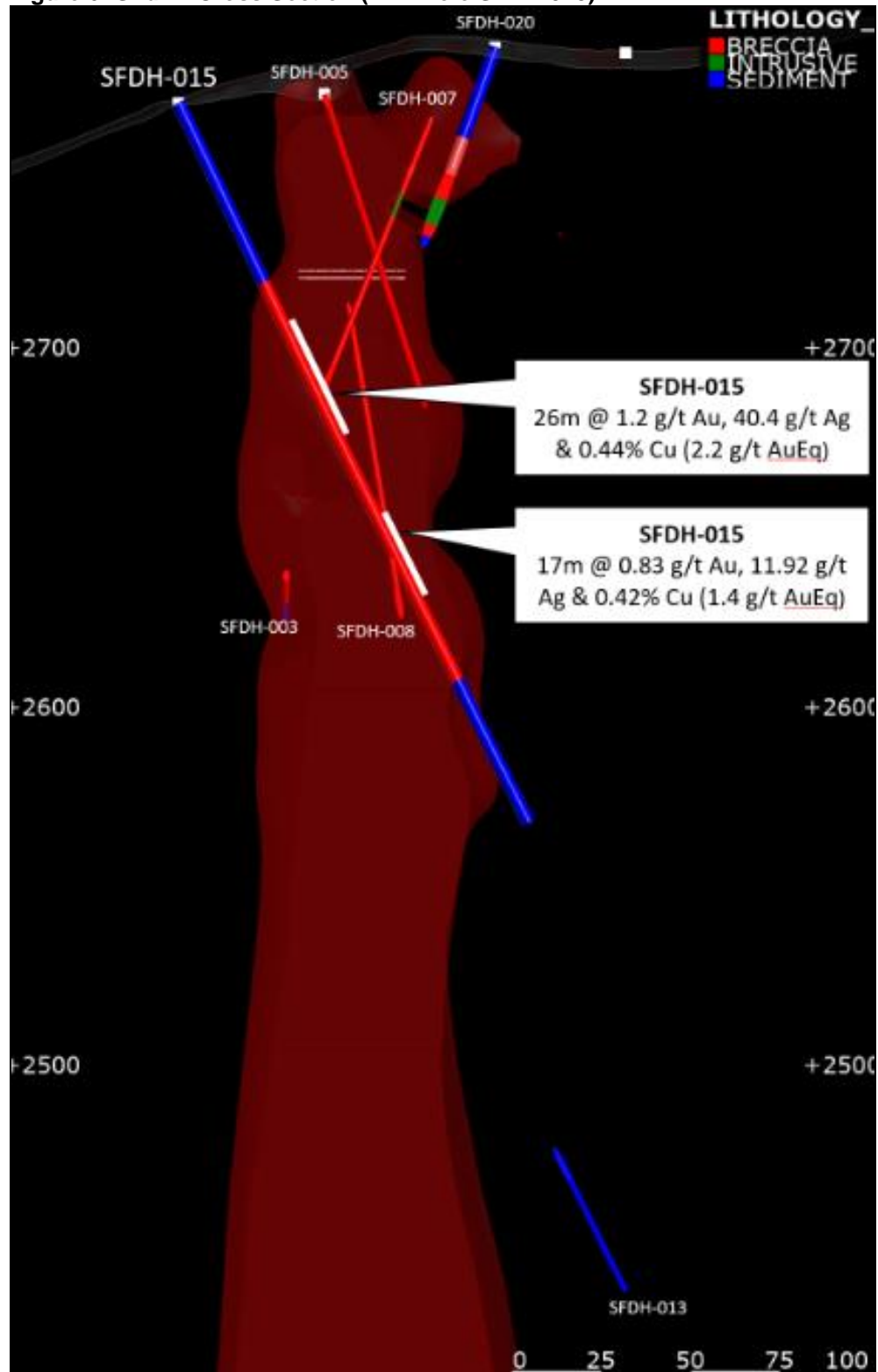


Figure 5: SFdLA Cross Section (Drill Hole SFDH-014)



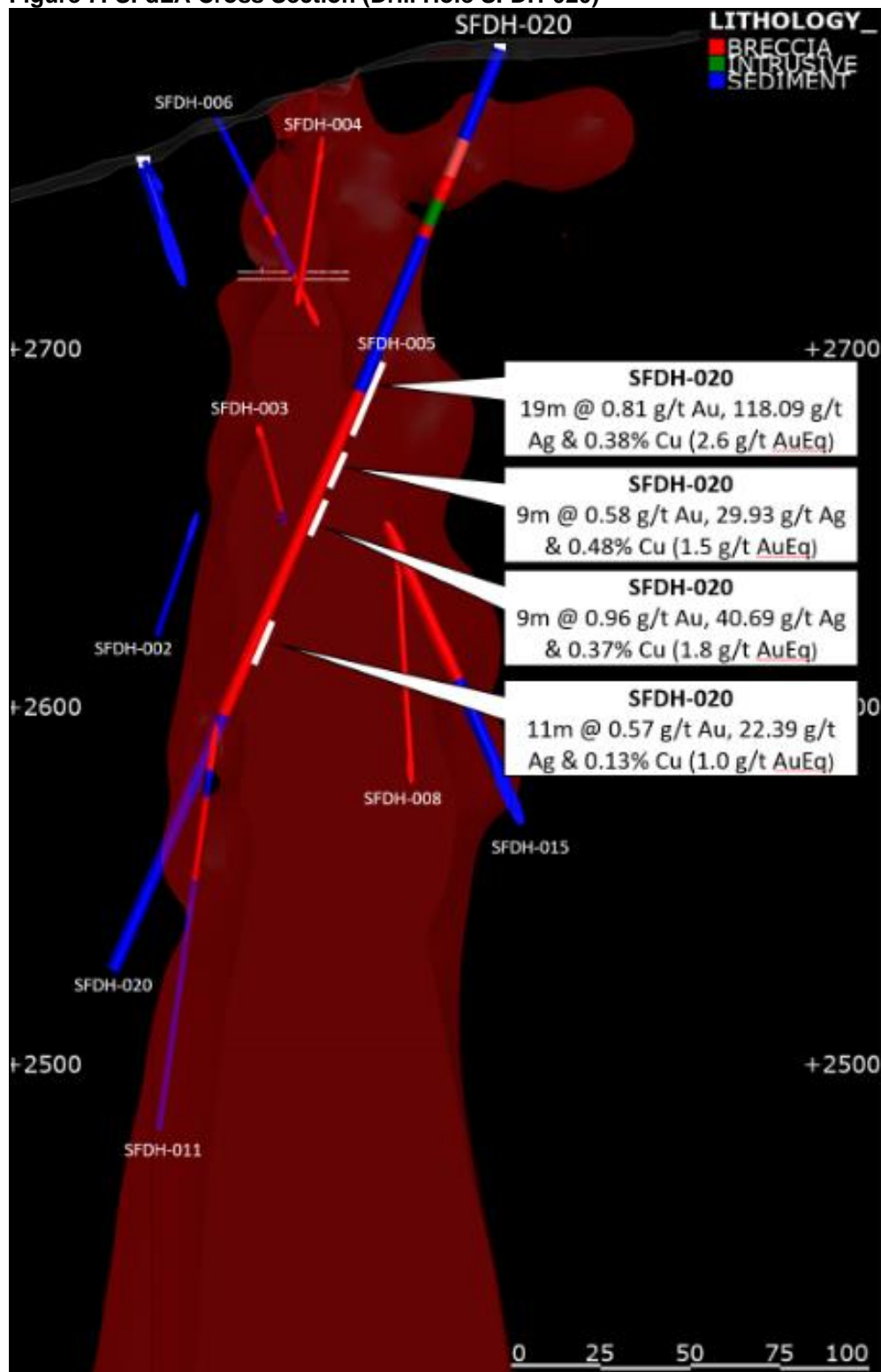
Source: Turmalina Metals Corp.

Figure 6: SFdLA Cross Section (Drill Hole SFDH-015)



Source: Turmalina Metals Corp.

Figure 7: SFdLA Cross Section (Drill Hole SFDH-020)



Source: Turmalina Metals Corp.



### Conceptual Mine Plan Recap

Ongoing exploration is focused on testing several prospective tourmaline breccia pipe targets, including the main SFdLA pipe that was the focus of historic (and current) drilling, for high-grade polymetallic (gold-silver-copper) mineralization (refer to [September 22, 2020](#), Cormark Morning Note). **As such, our base case model (formal valuation) is predicated on the delineation of 1.0 MMoz AuEq 'mineable' resource comprised of the main SFdLA pipe and other breccias at San Francisco—an arguably conservative target given the open-ended nature of high-grade mineralization at SFdLA and the identification of over 60 other breccia pipe targets to date on the greater property package; several of which are currently being drilled (see above).**

**Figure 8: Conceptual 'Mineable' Resource (Cormark model)**

	Tonnes (MM)	Copper (%)	Gold (g/t)	Silver (g/t)	AuEq (g/t)	Copper (MMlb)	Gold (koz)	Silver (MMoz)	AuEq (koz)	EV/oz AuEq (US\$/oz)
<b>Cormark Model Mineable</b>										
San Francisco Mineable	4.1	1.00%	5.00	129	<b>7.50</b>	91	666	17.2	<b>1,000</b>	<b>\$49</b>
<b>Total Mineable</b>	<b>4.1</b>	<b>1.00%</b>	<b>5.00</b>	<b>129</b>	<b>7.50</b>	<b>91</b>	<b>666</b>	<b>17.2</b>	<b>1,000</b>	<b>\$49</b>

Source: Cormark Securities Inc.

For contextual reference, our modelled 4.1 MMt 'mineable' inventory (averaging 5.0 g/t gold, 129 g/t silver, and 1.0 % copper; 7.5 g/t AuEq) would require the delineation of ~2-3 breccia pipes widening to ~75 m in diameter at ~400 m depth (~25 m diameter surficial expression)—in our opinion a conservative target given the open-ended nature of high-grade mineralization drilled to date at SFdLA (already traced to ~250 m depth) and the identification of over 60 other breccia pipe targets on the San Francisco property (see above).

**Conceptually, we envision a ~12-year, 1,000 tpd operation ramp-accessed underground operation feeding a centralized mill to produce a (gold-rich) sulphide concentrate beginning in 2025 (a poorly constrained timeline we will monitor closely as exploration ensues).** Our model assumes gold, silver, and copper recoveries of 90%, 85%, and 90%, respectively. That said, Turmalina has not completed any metallurgical testwork to date given the project's 'exploration status'. Furthermore, we are under the impression that (fine grained) gold occurs in free form and in association with pyrite.

We have assumed our modelled 4.1 MMt 'mineable' resource will feed San Francisco's mill with modestly higher grade mineralization during the first year of production given the supergene profile associated with the upper portion of the SFdLA breccia pipe (averaging 6.0 g/t gold, 120 g/t silver, and 1.5% copper [9.0 g/t AuEq] in our model). We also remain cognizant that the upper ~40 m of the outcropping SFdLA pipe is oxidized, which could provide (high grade) starter pit optionality—potentially leveraging existing [mothballed] processing infrastructure at the neighboring Casposo mine owned by Austral Gold (not included in our base case modelled mine plan). Said facility, boasting a ~1,100 tpd nameplate capacity was placed on care and maintenance in June 2019, after producing 325 koz of gold and 12.5 MMoz of silver from 2011 through Q2/19. That said, we are not aware of any negotiation/agreement between Turmalina and Austral—noting exploration is now underway at Casposo looking to extend the known limits of the low-sulphidation epithermal system.

**Said conceptual mine plan generates a life-of-mine average ~70 koz AuEq per annum payable production profile (~47 koz of gold, ~1.1 MMoz of silver, and ~6.5 MMlb of copper) underpinned by a total (C1) AuEq cash cost of US\$625/oz (or CuEq cash cost of US\$1.05/lb).** As final development plans could differ materially, we look to refine our model with the release of the project's maiden resource and other technical update(s) in the future.

Our model assumes an initial capital cost of US\$150 MM, which includes underground ramp(s)/infrastructure development and the construction of a new strategically located sulphide concentrator at San Francisco. Furthermore, our model includes arguably conservative onsite operating cost assumptions (underground mining, processing, and administrative), which total US\$75/t milled (life-of-mine-average). We note that comparable scale operations are underpinned by similar operating cost profiles. In particular, a June 2017 PFS pertaining to Kutcho Copper's namesake project in British Columbia pegs the 2,500 tpd ramp-accessed underground operation's onsite opex at \$74/t milled.

Said San Francisco operating cost profile translates into a life-of-mine average total (C1) AuEq cash cost of US\$625/oz (or conversely a CuEq C1 cash cost of US\$1.05/lb; again noting gold accounts for ~68% of the life-of-mine revenue generated by our conceptual mine plan; versus copper at ~16%).

Our model, underpinned by Cormark's formal commodity price forecast, which includes long-term (+2022) gold, silver, and copper prices of US\$1,750/oz, US\$18.00/oz, and US\$3.00/lb respectively, generates an after-tax project NAV8% of US\$234 MM (43% IRR; 2021 forward basis with production start-up modelled in 2025; see above). Again, the San Francisco project will likely require a number of drill campaigns (i.e., well beyond this year's 4,500 m effort detailed above, to fully delineate SFdLA and several other breccia pipes ahead of a construction decision—questioning the 'conservatism' of our modelled 2025 production start-up timing, which we acknowledge is in part an arbitrary figure designed to avoid NAV 'obliteration' in the context of a risk-adjusted 8% discount rate. Further to this point, our conceptual model generates a US\$273 MM after-tax project NAV8% on a 2023 basis (i.e., on a 'construction year 1' forward basis).

**Figure 9: San Francisco Mineable AuEq Basis Inventory NAV Sensitivity (US\$MM)**

		Mineable Gold Equivalent Resource In Sulphide (koz)					
		500	1,000	1,500	2,000	2,500	3,000
Gold Equivalent Head Grade (g/t)	4.50	\$2	\$50	\$70	\$36	\$40	\$43
	6.00	\$74	\$156	\$205	\$234	\$252	\$197
	7.50	\$118	\$234	\$310	\$361	\$395	\$419
	9.00	\$148	\$293	\$395	\$468	\$519	\$557
	10.50	\$169	\$339	\$464	\$557	\$627	\$679
	12.00	\$188	\$376	\$522	\$633	\$720	\$786
Mineable Sulphide Resource (MMt)							
	> 10.0						
	8.0-10.0						
	6.0-8.0						
	4.0-6.0						
	2.0-4.0						
	< 2.0						

After-tax project NAV8% is calculated on a 2021 forward basis with production start-up modelled in 2025.  
AuEq grade sensitivity is based on life-of-mine average silver and copper grades of 129 g/t and 1.0%, respectively and variable gold grade.  
Source: Cormark Securities Inc.

**Figure 10: San Francisco Mineable CuEq Basis Inventory NAV Sensitivity (US\$MM)**

		Mineable Copper Equivalent Resource In Sulphide (MMlb)					
		292	583	875	1,167	1,458	1,750
Copper Equivalent Head Grade (%)	3.8%	\$2	\$50	\$70	\$36	\$40	\$43
	5.1%	\$74	\$156	\$205	\$234	\$252	\$197
	6.4%	\$118	<b>\$234</b>	\$310	\$361	\$395	\$419
	7.7%	\$148	\$293	\$395	\$468	\$519	\$557
	8.9%	\$169	\$339	\$464	\$557	\$627	\$679
	10.2%	\$188	\$376	\$522	\$633	\$720	\$786

Mineable Sulphide Resource (MMt)	
	> 10.0
	8.0-10.0
	6.0-8.0
	4.0-6.0
	2.0-4.0
	< 2.0

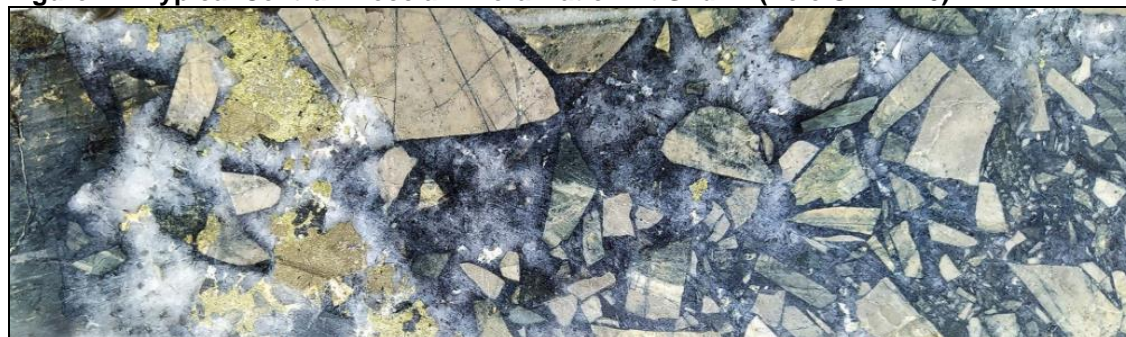
After-tax project NAV8% is calculated on a 2021 forward basis with production start-up modelled in 2025.  
CuEq grade sensitivity is based on life-of-mine average silver and copper grades of 129 g/t and 1.0%, respectively and variable gold grade.  
Source: Cormark Securities Inc.

**Figure 11: San Francisco OPEX-CAPEX Sensitivity (US\$MM)**

		Opex (US\$/t milled)				
		\$100	\$88	\$75	\$63	\$50
Initial Capex (US\$ MM)	\$250	\$146	\$165	\$184	\$203	\$221
	\$225	\$159	\$178	\$197	\$215	\$234
	\$200	\$172	\$191	\$209	\$228	\$246
	\$175	\$185	\$203	\$222	\$240	\$259
	<b>\$150</b>	\$197	\$215	<b>\$234</b>	\$252	\$271
	\$125	\$209	\$227	\$246	\$264	\$283
	\$100	\$221	\$239	\$258	\$276	\$294

After-tax project NAV8% is calculated on a 2021 forward basis with production start-up modelled in 2025.  
Source: Cormark Securities Inc.

**Figure 12: Typical Central Breccia Mineralization At SFdLA (hole SFDH-20)**



Source: Turmalina Metals Corp.



**Figure 13: Conceptual San Francisco Mine Plan Parameters (Cormark model)**

	<b>Cormark Conceptual Model</b>
<b>Timing</b>	
Production Start-Up, year	2025
Mine Life, years	12
Mine Type	Underground
Mill Type	Conventional sulphide froth flotation concentrator
<b>Production</b>	
<b>Mineable Gold Equiv. Resource, koz</b>	<b>1,000</b>
Mineable Resource, kt	4,147
Nominal Processing Capacity, tpd	1,000
LOM Average Copper Head Grade, %	1.00%
LOM Average Gold Head Grade, g/t	5.00
LOM Average Silver Head Grade, g/t	129
<b>LOM Average Gold Equiv. Head Grade, g/t</b>	<b>7.50</b>
<b>LOM Average Copper Equiv. Head Grade, %</b>	<b>6.38%</b>
LOM Average Global Copper Recovery, %	90%
LOM Average Global Gold Recovery, %	90%
LOM Average Global Silver Recovery, %	85%
<b>LOM Average Annual Payable Gold Equiv. Production, koz</b>	<b>70</b>
<b>LOM Average Annual Payable Copper Equiv. Production, MMlb</b>	<b>41</b>
<b>Total Payable Gold Equiv. Production, koz</b>	<b>839</b>
<b>Total Payable Copper Equiv. Production, MMlb</b>	<b>489</b>
<b>Operating Costs</b>	
LOM Avg. Unit Opex, US\$/t processed	\$75
<b>LOM Average Total Gold Equiv. (C1) Cash Cost, US\$/oz AqEq</b>	<b>\$625</b>
<b>LOM Average Total Copper Equiv. (C1) Cash Cost, US\$/lb CuEq</b>	<b>\$1.05</b>
<b>Capital Costs</b>	
Initial Capital Cost, US\$ MM	\$150
LOM Ttl. Cap. Cost (initial, sust. & clos.), US\$MM	\$260
<b>Project Valuation</b>	
Long-term Forecast Copper Price, US\$/lb	\$3.00
Long-term Forecast Gold Price, US\$/oz	\$1,750
Long-term Forecast Silver Price, US\$/oz	\$18.00
Project NAV Discount Rate, %	8%
<b>After-Tax Project NAV, US\$ MM</b>	<b>\$234</b>
<b>After-Tax Project IRR, %</b>	<b>43%</b>

After-tax project NAV8% is calculated on a 2021 forward basis.  
Source: Cormark Securities Inc.

### Valuation

Turmalina's flagship San Francisco project currently has no National Instrument 43-101 compliant resource. Ongoing exploration is focused on testing several prospective tourmaline breccia pipe targets, including the main SFdLA pipe that was the focus of historic (and current) drilling, for high-grade polymetallic (gold-copper-silver) mineralization. **As such, our base case model (formal valuation) is predicated on the delineation of 1.0 MMoz AuEq 'mineable' resource comprised of the main SFdLA pipe and other breccias at San Francisco (refer to [September 22, 2020](#), Cormark Morning Note)—an arguably conservative target given the open-ended nature of high-grade mineralization at SFdLA and the identification of over 60 other breccia pipe targets to date on the greater property package; several of which are currently being drilled.**

**Conceptually, we envision a ~12-year, 1,000 tpd ramp-accessed underground operation feeding a centralized mill to produce a (gold-rich) sulphide concentrate beginning in 2025 (a poorly constrained timeline we will monitor closely as exploration ensues).** We also remain cognizant that the upper ~40 m of the outcropping SFdLA pipe is oxidized, which could provide (high grade) starter pit optionality—potentially leveraging existing [mothballed] processing infrastructure at the neighboring Casposo mine owned by Austral Gold (not included in our base case modelled mine plan).

**Said conceptual mine plan, which includes a US\$150 MM initial capital cost, generates a ~70 koz AuEq per annum payable production profile (~47 koz of gold, ~1.1 MMoz of silver, and ~6.5 MMlb of copper) underpinned by a total (C1) AuEq cash cost of US\$625/oz (or CuEq cash cost of US\$1.05/lb).** As final development plans could differ materially, we look to refine our model with the release of the project's maiden resource and other technical update(s) in the future.

**Our \$2.00 per share target price (Buy (S) recommendation) is based on a 0.8x multiple to Turmalina's fully financed after-tax corporate NAV8% of US\$285 MM or \$2.35 per fully diluted share (2021 forward basis with production start-up in 2025; noting peers trade up to ~1.0x NAV).** We note that gold accounts for 68% of the company's gross revenue in our conceptual model, followed by copper (16%) and silver (16%). Hence, our use of a 'risk-adjusted' 8% discount rate, which compares to Cormark's standard practice of using 5% and 10% discount rates for gold and base metal projects respectively that are underpinned by compliant resource and/or mine plans. Said valuation is based on Cormark's formal commodity price forecast, which includes long-term (+2022) gold, silver, and copper prices of US\$1,750/oz, US\$18.00/oz, and US\$3.00/lb, respectively. For illustrative purposes, we note that at a 5% discount rate, Turmalina's fully financed after-tax corporate NAV increases to US\$357 MM or \$2.94 per fully diluted share (+25%) in our conceptual model.

While San Francisco is the focal point of our Turmalina valuation (and current exploration focus), we remain cognizant that the company's portfolio of exploration assets also includes the namesake Turmalina project in Peru, which contains a number of untested tourmaline breccia pipes, as well as the recently optioned Chanape project in Peru, which hosts over 50 poorly explored tourmaline breccias (refer to [September 22, 2020](#), Cormark Morning Note). Hence, our formal valuation (corporate NAV) includes a US\$35 MM 'credit' for 'regional' exploration upside potential.

**Figure 14: Corporate NAV Gold Price and Discount Rate Sensitivity (C\$ per share)**

		Gold (US\$/oz)					
Discount Rate		\$1,550	\$1,650	\$1,750	\$1,850	\$1,950	\$2,050
	12%	\$1.58	\$1.70	\$1.82	\$1.94	\$2.06	\$2.18
	10%	\$1.78	\$1.92	\$2.06	\$2.20	\$2.34	\$2.48
	8%	\$2.02	\$2.19	<b>\$2.35</b>	\$2.52	\$2.68	\$2.85
	6%	\$2.33	\$2.53	\$2.72	\$2.92	\$3.11	\$3.31
	4%	\$2.72	\$2.95	\$3.19	\$3.42	\$3.65	\$3.89

Fully financed after-tax corporate NAV is calculated on a 2021 forward basis with San Francisco production start-up modelled in 2025.

Source: Cormark Securities Inc.

**Figure 15: NAV Breakdown and Sensitivity**

	Cormark Model	\$2.00	\$2.50	\$3.00	\$3.50	\$4.00	Spot
Long-term Copper Price Forecast, US\$/lb		\$1,400	\$1,600	\$1,800	\$2,000	\$2,200	
Long-term Gold Price Forecast, US\$/oz		\$5.00	\$10.00	\$15.00	\$20.00	\$25.00	
Long-term Silver Price Forecast, US\$/oz		\$1.50	\$1.40	\$1.30	\$1.20	\$1.10	
Long-term C\$/US\$ FX Rate		161	161	161	161	161	161
Fully Financed FD Shares, MM							
<b>Corporate Adjustments</b>							
Corporate Adjustments, US\$ MM	\$17	\$17	\$17	\$17	\$17	\$17	\$17
Corporate Adjustments, C\$ per FD Share	\$0.14	\$0.15	\$0.14	\$0.13	\$0.12	\$0.11	\$0.14
<b>Projects</b>							
San Francisco After-Tax Project NAV8%, US\$ MM	\$234	\$87	\$159	\$230	\$301	\$372	\$293
San Francisco After-Tax Project NAV8%, C\$ per FD Share	\$1.93	\$0.81	\$1.38	\$1.86	\$2.24	\$2.54	\$2.42
<b>Total After-Tax Projects NAV8%, US\$ MM</b>	<b>\$234</b>	<b>\$87</b>	<b>\$159</b>	<b>\$230</b>	<b>\$301</b>	<b>\$372</b>	<b>\$293</b>
<b>Total After-Tax Projects NAV8%, C\$ per FD Share</b>	<b>\$1.93</b>	<b>\$0.81</b>	<b>\$1.38</b>	<b>\$1.86</b>	<b>\$2.24</b>	<b>\$2.54</b>	<b>\$2.42</b>
<b>Subtotal Valuation (Corporate Adjustments + Projects)</b>							
Subtotal After-Tax Corporate NAV8%, US\$ MM	\$250	\$103	\$175	\$247	\$318	\$388	\$310
Subtotal After-Tax Corporate NAV8%, C\$ per FD Share	\$2.06	\$0.96	\$1.52	\$1.99	\$2.36	\$2.65	\$2.55
<b>Resource + Exploration Upside Credit</b>							
Regional Exploration Upside Credit, US\$ MM	\$35	\$35	\$35	\$35	\$35	\$35	\$35
Regional Exploration Upside Credit, C\$ per FD Share	\$0.29	\$0.33	\$0.30	\$0.28	\$0.26	\$0.24	\$0.29
Total Resource + Exploration Upside Credit, US\$ MM	\$35	\$35	\$35	\$35	\$35	\$35	\$35
Total Resource + Exploration Upside Credit, C\$ per FD Share	\$0.29	\$0.33	\$0.30	\$0.28	\$0.26	\$0.24	\$0.29
<b>Total Valuation</b>							
Total After-Tax Corporate NAV8%, US\$ MM	\$285	\$138	\$210	\$282	\$353	\$423	\$345
Total After-Tax Corporate NAV8%, C\$ per FD share	\$2.35	\$1.29	\$1.83	\$2.27	\$2.62	\$2.89	\$2.84
Implied Target Price @ 0.8x After-Tax Corp. NAV8%, C\$	\$2.00	\$1.25	\$1.50	\$2.00	\$2.25	\$2.50	\$2.50
2025E Model CFPS, US\$	\$0.56	\$0.33	\$0.45	\$0.57	\$0.70	\$0.84	\$0.64
2026E Model CFPS, US\$	\$0.42	\$0.23	\$0.32	\$0.42	\$0.54	\$0.66	\$0.50

Cormark model after-tax NAV8% is calculated on a January 1, 2021 forward basis with San Francisco production start-up modelled in 2025.

Cormark model is based on a long-term forecast copper, gold, and silver price of US\$3.00/lb, US\$1,750/oz, and US\$18/oz, respectively, and a forecast C\$/US\$ FX rate of 1.33.

Spot price scenario is based on a copper price of US\$2.90/lb, a gold price of US\$1,912/oz, a silver price of US\$24.32/oz, and a C\$/US\$ FX rate of 1.33.

Source: Cormark Securities Inc.



**Figure 16: Turmalina Metals Corp. – Summary**

<b>Turmalina Metals Corp. (TBX-V)</b>	Target Price, C\$	\$2.00	Shares OS, MM	65.8
Rating: BUY (S)	Current Price, C\$	\$1.18	Shares FD, MM	77.1
Target Price: C\$2.00	Return, %	69%	Market Cap, US\$ MM	\$58
Metric: 0.8x fully financed after-tax corporate NAV8%	52-Week High / Low, C\$	\$1.80 / \$0.27	Company CEO	Rohan Wolfe
	Volume (100-day avg.)	481,551	Web Site	<a href="http://www.turmalinametals.com">www.turmalinametals.com</a>

**Consolidated Balance Sheet and Capitalization**

	US\$ MM	US\$/Sh.	C\$MM	C\$/Sh.
Market Capitalization	\$58	\$0.89	\$78	\$1.18
Current Cash	\$9	\$0.13	\$12	\$0.17
FD Cash Adds	\$7	\$0.11	\$9	\$0.14
Working Capital	\$9	\$0.14	\$12	\$0.18
Long-term Debt	-	-	-	-
Book Value	\$10	\$0.16	\$14	\$0.21
Enterprise Value (EV)	\$49	\$0.75	\$66	\$1.00

EV = Market Capitalization - Working Capital + Long-term Debt

**Consolidated Financial Forecast**

	2025	2026	2027
Forecast Copper Price, US\$/lb	\$3.00	\$3.00	\$3.00
Forecast Gold Price, US\$/oz	\$1,750	\$1,750	\$1,750
C\$/US\$ FX Rate	1.33	1.33	1.33
Average Shares OS, MM	150	150	150
Cash, US\$ MM	\$76	\$114	\$149
Working Capital, US\$ MM	\$76	\$115	\$149
Long-term Debt, US\$ MM	\$80	\$70	\$60
Sales, US\$ MM	\$153	\$128	\$124
Operating Costs, US\$ MM	\$(49)	\$(43)	\$(42)
Depreciation, US\$ MM	\$(23)	\$(23)	\$(23)
Corporate G&A, US\$ MM	\$(10)	\$(10)	\$(10)
Exploration, US\$ MM	-	-	-
Earnings, US\$ MM	\$45	\$32	\$30
<b>EPS, US\$</b>	<b>\$0.30</b>	<b>\$0.21</b>	<b>\$0.20</b>
Operating CF, US\$ MM	\$84	\$64	\$59
<b>CFPS, US\$</b>	<b>\$0.56</b>	<b>\$0.42</b>	<b>\$0.39</b>
<b>Current Price / CFPS</b>	<b>1.6x</b>	<b>2.1x</b>	<b>2.2x</b>
Target Price / CFPS	2.7x	3.5x	3.8x
<b>Current EV / OCF</b>	<b>0.6x</b>	<b>0.8x</b>	<b>0.8x</b>
Target Implied EV / OCF	2.9x	3.9x	4.2x
CAPEX, US\$ MM	\$(10)	\$(10)	\$(10)
<b>Investing CF, US\$ MM</b>	<b>\$(10)</b>	<b>\$(10)</b>	<b>\$(10)</b>
Interest Payment, US\$ MM	\$(6)	\$(5)	\$(5)
Principi Repayment, US\$ MM	\$(10)	\$(10)	\$(10)
<b>Financing CF, US\$ MM</b>	<b>\$(16)</b>	<b>\$(15)</b>	<b>\$(15)</b>
Free Cash Flow, US\$ MM	\$58	\$38	\$35
<b>FCFPS, US\$</b>	<b>\$0.39</b>	<b>\$0.26</b>	<b>\$0.23</b>

**San Francisco Production Profile (100% owned)**

	2025	2026	LOM
Oxide Ore Milled, kt	-	-	-
Oxide Gold Head Grade, g/t	-	-	-
Oxide Gold Recovery, %	-	-	-
Sulphide Ore Milled, kt	365	365	4,147
Sulphide AuEq Head Grade, g/t	9.0	7.6	7.5
Sulphide CuEq Head Grade, %	7.7%	6.4%	6.4%
Sulphide Gold Recovery, %	90%	90%	90%
Sulphide Copper Recovery, %	90%	90%	90%
<b>Gold Equivalent Sales, koz</b>	<b>89</b>	<b>74</b>	<b>839</b>
<b>Copper Equivalent Sales, MMlb</b>	<b>52</b>	<b>43</b>	<b>489</b>
Onsite Operating Cost, US\$/t milled	\$75	\$75	\$75
<b>Total CuEq Cash Cost, US\$/lb Payable</b>	<b>\$1.00</b>	<b>\$1.05</b>	<b>\$1.05</b>
<b>Total AuEq Cash Cost, US\$/oz Payable</b>	<b>\$600</b>	<b>\$625</b>	<b>\$625</b>

Source: Cormark Securities Inc.

**Share Capital Dilution**

	Number	Price	Proceeds	Expiry
Warrants	5.5MM	C\$0.87	C\$4.7MM	2022
Options	5.8MM	C\$0.78	C\$4.6MM	2024-2025
Share Units	-	-	-	-
<b>Total Dilution</b>	<b>11.3MM</b>	<b>C\$0.82</b>	<b>C\$9.3MM</b>	

**Recent Financings**

Feb 2020 - C\$9.8 MM PP (14.0 MM units @ C\$0.70/unit; each unit includes one-half 24-month warrant @ \$0.90/shr strike)

**Major Shareholders**

	OS (MM)	OS (%)	FD (MM)	FD (%)
Palos Management	0.5	1%	0.5	1%
Esfera Capital Gestion	0.0	0%	0.0	0%
Management and Insider	13.2	20%	24.5	32%
<b>Total</b>	<b>65.8</b>	<b>21%</b>	<b>77.1</b>	<b>32%</b>

**Corporate NAV Summary and Sensitivity**

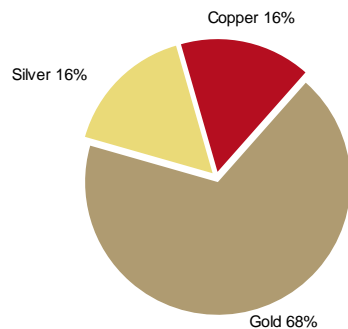
	Cormark	\$2.00	\$2.50	\$3.00	\$3.50	Spot
<b>Forecast Copper Price, US\$/lb</b>	<b>\$3.00</b>	<b>\$2.00</b>	<b>\$2.50</b>	<b>\$3.00</b>	<b>\$3.50</b>	<b>\$2.90</b>
<b>Forecast Gold Price, US\$/oz</b>	<b>\$1,750</b>	<b>\$1,400</b>	<b>\$1,600</b>	<b>\$1,800</b>	<b>\$2,000</b>	<b>\$1,912</b>
<b>Forecast C\$/US\$ FX Rate</b>	<b>1.33</b>	<b>1.50</b>	<b>1.40</b>	<b>1.30</b>	<b>1.20</b>	<b>1.33</b>
San Francisco AT NAV8%, US\$ MM	\$234	\$87	\$159	\$230	\$301	\$293
Corporate Adjustments, US\$ MM	\$17	\$17	\$17	\$17	\$17	\$17
Additional Exploration Credit, US\$ MM	\$35	\$35	\$35	\$35	\$35	\$35
<b>Corporate NAV, US\$ MM</b>	<b>\$285</b>	<b>\$138</b>	<b>\$210</b>	<b>\$282</b>	<b>\$353</b>	<b>\$345</b>
<b>Corporate NAV, C\$/FD Share</b>	<b>\$2.35</b>	<b>\$1.29</b>	<b>\$1.83</b>	<b>\$2.27</b>	<b>\$2.62</b>	<b>\$2.84</b>
Current Price / Corporate NAV	0.5x	0.9x	0.6x	0.5x	0.4x	0.4x
Target Price / Corporate NAV	0.8x	1.6x	1.1x	0.9x	0.8x	0.7x
2025E CFPS, US\$	\$0.56	\$0.33	\$0.45	\$0.57	\$0.70	\$0.64
2026E CFPS, US\$	\$0.42	\$0.23	\$0.32	\$0.42	\$0.54	\$0.50

Model FD Shares (fully financed): 161MM

**Metal Inventory**

	Tonnes (MM)	Gold (g/t)	AuEq (g/t)	Gold (koz)	AuEq (koz)	EV/oz AuEq (US\$/oz)
<b>San Francisco Modelled Mineable (100%)</b>	<b>4.1</b>	<b>5.0</b>	<b>7.5</b>	<b>666</b>	<b>1,000</b>	<b>\$49</b>
San Francisco M&I Resource (100%)	-	-	-	-	-	-
San Francisco Inferred Resource (100%)	-	-	-	-	-	-
<b>Total Reserve &amp; Resource (100%)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Attributable Reserve &amp; Resource</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

**Corporate Revenue By Metals**

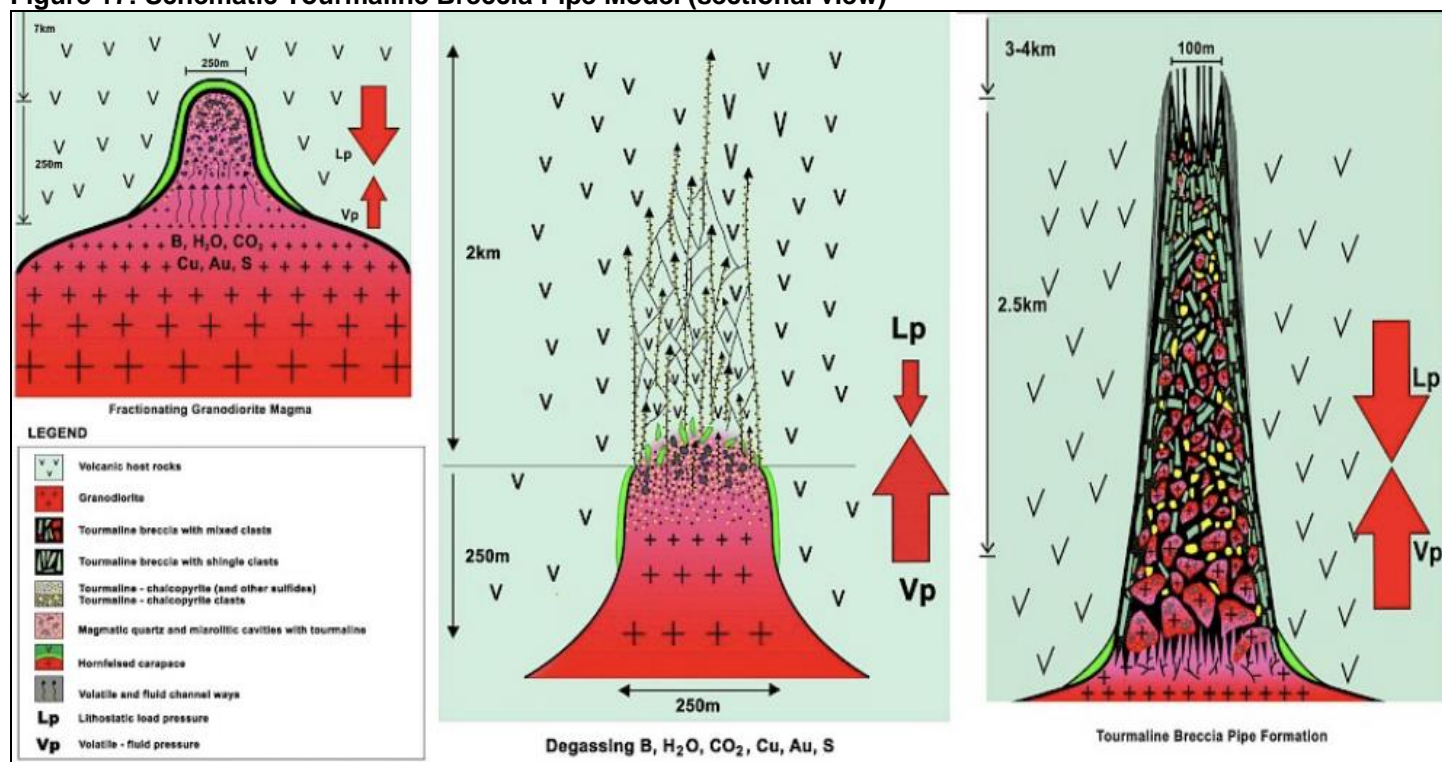


### Appendix – Tourmaline Breccia Pipe Primer

Tourmaline is a boron silicate mineral ( $\text{Al}_6\text{B}_3\text{Fe}_3\text{H}_{10}\text{NaO}_3\text{Si}_6$ ) commonly found in copper-bearing intrusion-related breccia pipes. Said 'tourmaline breccias', which can vary considerably in size and metal content, are derived from granitic to granodioritic magmas initiated at deeper crustal levels than generally much larger copper-bearing pipes associated with porphyry deposits. **As a consequence, intrusion-related pipes tend to increase in size with depth—in contrast to porphyry-related examples, which typically flare upwards due to significantly lower lithostatic pressure considerations at shallower levels.** Both deposit types can have vertical dimensions exceeding one km. The common presence of decompressive shock textures and shingle breccias provide further evidence for deeper emplacement of intrusion-related pipes.

Breccia pipe development stems from the over-pressuring of accumulated boron-metal rich hydrothermal fluid in the cupola of the intrusive complex, which is followed by hydraulic fracturing of the overlying host rock creating sheeted vein sets. This in turn may cause upward stoping of the overlying host rock through hydraulic failure—with pipe growth reflecting associated internal wall rock failure/collapse.

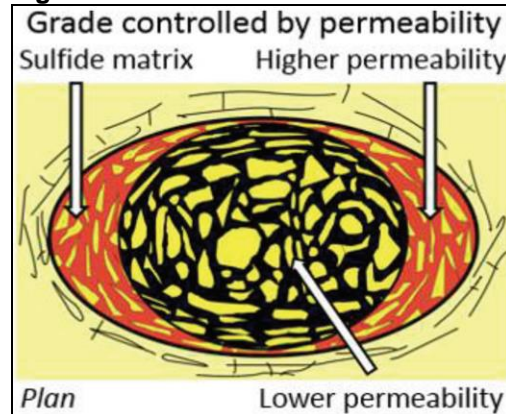
**Figure 17: Schematic Tourmaline Breccia Pipe Model (sectional view)**



Source: Kirwin (2017)

In terms of mineralization, complex multi-element assemblages (Cu, Mo, Au, Ag, As, Bi,  $\text{WO}_3$ , Pb and Zn) typically characterize the deeper smaller intrusion-related pipes compared to a generally simpler Cu-Mo association observed in porphyry environments. Highest metal concentration is normally found near the inside margins of the tourmaline pipes, and especially in the non-porphyry derived examples where there is intense development of shingle breccias—reflecting enhanced permeability associated with these zones.

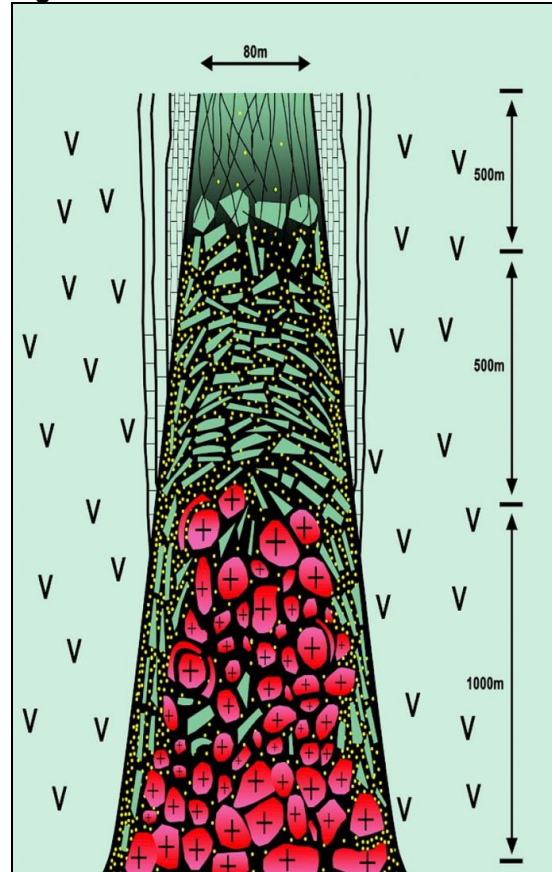
**Figure 18: Schematic Tourmaline Breccia Pipe (plan view)**



Source: Kirwin (2017)

Said pipes, typified by surficial diameters in the range of tens to hundreds of m (with 'inverted carrot' morphologies exceeding 500 m in vertical extent), tend to occur in clusters. The polymictic breccias (sericite and silica-altered wall-rock andesitic clasts set in a tourmaline and sulphide-rich matrix) display sharp contacts with host wall rocks, complimented by a well-defined quartz-sericite-sulphide veining 'halo' extending away from said contact.

**Figure 19: Schematic Tourmaline Breccia Pipe (plan view)**



Source: Kirwin (2017)

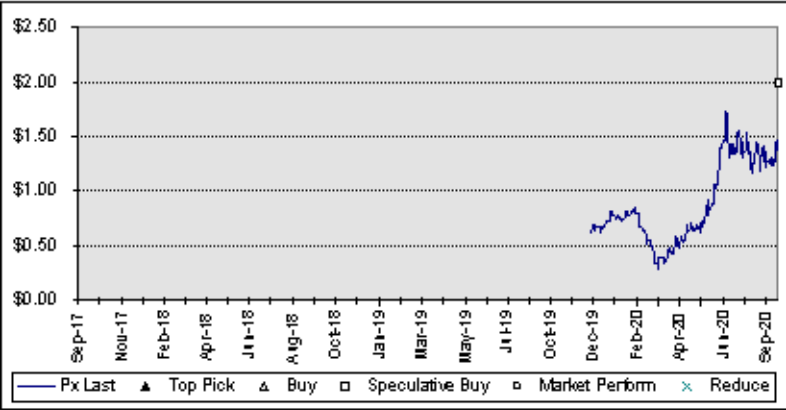


**Turmalina Metals Corp.**

Updated October 05, 2020

**Price Chart and Disclosure Statement**

\*Information updated monthly on or about the 5th of each month.



Recommendation / Target Chg  
Date C\$  
22-Sep-20 2.00 (B-S)

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