Happy Creek Minerals (C$ 0.13)

TSX.V : HPY
H + L prices (12 months) : C$ 0.20 – 0.105
Net shares issued : 93.5 million
Fully diluted shares : 98.3 million
Market Capitalization : C$ 12.6 million (US$ 9.5 million)

2019 price target: C$ 0.30

Company profile

Happy Creek Minerals ("Happy Creek") owns a 100% interest in 7 properties totalling approximately 640.0 square kilometres of mineral tenure located in British Columbia, Canada. The Company acquired these early-stage properties mainly between 2005 and 2009 based on their interpreted potential to host economic deposits.

The Fox Tungsten and Rateria - West Valley Copper properties are now at a more advanced stage of exploration, including resource definition and expansion, as well as engineering and economic evaluation stage for Fox.

Although Happy Creek’s other properties are thought to warrant additional exploration, the current focus is on advancing the Fox and Rateria-West Valley properties.

The Company also holds a 1% NSR on the Silver Dollar Project in the Cambourne district of southeast B.C.
Overview of Projects
Fox Tungsten Property – 100%-owned, located in south-central B.C.

The Fox Tungsten Property is a new discovery of tungsten in a mineral system overall 10 kilometres by 3 kilometres in dimension and located northeast of 100 Mile House, south-central B.C.. An updated resources estimate was announced in February 2018. The total Indicated Resource of the Ridley Creek Zone amounts to 582,400 tonnes grading 0.826% WO3, containing 4.8 million kg WO3 and the total Inferred Resource is 565,000 tonnes grading 1.231% WO3 containing 6.96 million kg WO3 for the Ridley Creek, BN and BK Zones combined.

The selected cut-off for the material amenable to open-pit extraction is 0.175% WO3 and for material amenable to underground extraction a cut-off of 0.45% WO3 was applied.

A portion of the Indicated Resources is within an open-pit. These resource grades are comparable with the Cantung mine (now closed), that when it was in operation at around 1,250 tonnes per day, was regarded as the largest and highest-grade tungsten producer in the western world.

In September 2018, Happy Creek announced that the mapping at higher elevations above the Ridley Creek deposit has tracked three calc-silicate-skarn layers continuously for 500 metres which connect with layers previously mapped. These layers are confirmed to be continuous for 2 kilometres and contain tungsten and locally zinc and molybdenum values. The findings also suggest the resource-bearing layer of the Ridley Creek deposit is likely to extend over 500 metres to the west beneath Deception Mountain and remains untested by drilling.

In November 2018 the Company announced that surface sampling and mapping to the south of the Ridley Creek deposit returned numerous new outcrops with tungsten up to 0.35 m of 7.43% WO3. This work has improved the potential to expand resources between the Ridley Creek and BN deposits, a one kilometre distance.

All mineralized zones are open to further expansion. Drilling has returned numerous intercepts containing more than 3% WO3 that are outstanding on a global basis.

The large-scale mineral system, near-surface setting, high-grade and proximity to infrastructure are positive qualities of the Fox Project and is thought to be a rare and exceptional tungsten find.

Plans include increasing the resource base and performing a Preliminary Economic Assessment (“PEA”) to advance Fox as a new high-grade tungsten project in the western world.

On March 25, 2019, Happy Creek provided results of further work completed during the fall of 2018. The Company conducted reconnaissance prospecting on the west and south side of the Fox Property where recently constructed logging roads provide access to areas not previously explored. Rock grab samples from the southern side of the Property returned positive silver values in quartz veins, and from the west side of the Property stream sediment samples returned positive tungsten values.
Located approximately 4 kilometres southeast of the South Grid tungsten prospect, these samples are from the first look at a new area where quartz veins with galena (lead sulphite) cut monzogranite, alaskite intrusion and Snowshoe Formation metasediment. Trace elements include geochemical values of up to 81 ppm tellurium and greater than 2,000 ppm bismuth. Calc silicate, the host to tungsten skarn on the Property was found nearby before snow made roads impassible.

Further to the news release dated November 21, 2018, stream sediment sampling at low elevators on the west side of Deception mountain has returned positive tungsten. Three samples returned 15 ppm W, and one sample contains 14 ppm that together covers four drainages over approximately 2 kilometres along the base of the mountain.

**Preparing 2019 plan**

Exploration conducted during 2018 has expanded the Fox mineral system to 12 kilometres by 5 kilometres dimension, which has increased the potential for further tungsten resource expansion.

**Happy Creek** is preparing to conduct surface exploration, drilling, engineering and environmental studies and has received estimates for conducting a Preliminary Economic Assessment (“PEA”).
WHAT IS SPECIAL ABOUT TUNGSTEN?

Example in agriculture: Tungsten tiller blades: Improves performance and working life.

Many more uses of tungsten....

Tungsten is declared a “Critical Metal” in the USA, Europe.

“Performs an essential function with few or no substitutes and...

...a high probability of supply being disrupted.”

- WO₃ (tungsten trioxide) is the compound used by the market to price a number of refined, intermediate tungsten products such as ammonium paratungstate (APT).
- WO₃ prices for APT have ranged up to 85% of the price of tungsten and will largely set the global price.
- Tungsten concentrate is purchased by off-take agreement with refiners for around 80% of APT price.
- Current European APT price is around US $27/Kg WO₃ and expected to be over US$30/Kg by 2020.
- History shows it is very difficult to be profitable mining lower grade deposits, no matter what scale, when prices fall.

The Fox resource grades 0.826% WO₃ Indicated and 1.231% WO₃ Inferred.

In the top 5% of tungsten deposits.

27 WESTERN TUNGSTEN PROJECTS

Happy Creek Minerals Fox tungsten project discovered in 2011- resource size open

- Cantung mine (closed)/Mactung deposit NWT-Yukon (both very remote)
- King Island mine (closed) Tasmania (remote, currently in re-development)
- Pasto Bueno mine Peru- (closed- head grade << resource grade) -remote

Almonty- Sandong Korea (underground) awaiting financing to build.

Oremonde- Barruecopardo (open pit) in construction

For projects above 0.60% WO₃ in North America, the Fox is the only one with hydropower nearby.
➢ Rateria - West Valley Property - 100%-owned, located in south-central B.C.

Happy Creek’s Rateria and West Valley Property adjoins and surrounds the southern end of Teck’s Highland Valley Copper Mine property, Canada’s largest copper producer. It also adjoins the northside of the past-producing Craigmont Copper Mine Property. At the Rateria Property, the Company has discovered two new copper zones located approximately 6.5 kilometres from a currently producing open-pit and contains geology and drill results with similar copper grade to other Highland Valley deposits.

Drilling at both zones has identified continuous and positive grades approximately one kilometre in length and up to 150 metres in width and to over 350 metres in depth. These zones occur within a larger envelope of lower-grade material and remain open.

Drill highlights include 95.0 metres of 0.67% copper, 250.0 metres of 0.25% copper from Zone 1 and 152.5 metres of 0.35% copper, 0.06 g/t gold and 105.5 metres of 0.37% copper, 0.14 g/t gold, 0.005% molybdenum and 0.63 g/t rhenium in Zone 2. There is thought to be clear resource potential in both Zone 1 and 2.

Happy Creek’s Highland Valley property facing south. The first time this area is held by one Company.

Additional mineral claims were acquired in 2017 that expands the Property to 240 square kilometres thought to have excellent potential to discover other copper deposits, and within a mining district having a history of 5 deposits achieving commercial production.
Update on the Rateria copper and Hen gold properties

In September 2018, Happy Creek provided an update on the Company’s Rateria copper and Hen gold properties.

On the Rateria copper property – Zone 1 and 2 both have drilled dimensions of approximately one kilometre in length, 50 to 150 metres in width and over 350 metres in depth and remain open, with drill grades comparable to that currency being mined in the Highland Valley district. In early September a historical access trail dating from the mid-1950s near to the Sho prospect was cleared and evaluated. Mineralized zones are exposed in 5 places with an area approximately 20-40 metres in width and 200 metres in length and open.

Grab samples collected of the mineralized material range from 0.06% copper up to 3.59% copper, 287 ppb gold and 11.9 g/t silver. The average of the 19 selected materialized samples collected from all 5 exposures is 1.68% copper.

Geological mapping on trend some 600 metres to the southeast of the area located an outcrop containing a 1 to 3-metre-wide series of bornite-rich copper veins and cross cutting veinlets that are not recorded in any historical information. This new prospect is thought to be part of the mineralized structures further to the northwest, which together is at least 800 metres of trike length.

Based on geophysical surveys, this area is in proximity to a wide, mostly covered first order northwest trending structure that cuts the batholith through the Sho, Moss 4, Zone 1 and South Yubet prospects, a distance of at least 7 kilometres.

The recent work completed around the Sho prospect contributes to the ongoing geological vectoring toward new large-scale porphyry copper targets in a district hosting Canada’s largest porphyry mine.

Hen Gold Property

The Hen Property is located approximately 2 kilometres west of the Fox Property. Prospecting along a recently constructed logging road has resulted in the discovery of a new mineralized showing. The first and only grab sample collected from a recent roadcut returned 7.6 g/t gold, 2.08% lead, 4.02% zinc and 0.16% copper. The host rock is a sulphide-rich volcanic sediment near the base of the Nicola Group basalt conglomerate and top of the Lemieux Creek Formation. This style of mineralization has not been seen before on the property. In addition, 2 rock samples collected northeast of the Ledge prospect returned 2.13 g/t gold and 0.55 g/t gold.

In addition to the two more advanced staged projects, Happy Creek has several other 100%-owned properties with well-defined quality targets that are thought to be ready for testing:

Silverloss Property with approximately 91 square kilometres of mineral tenure surrounding the past-producing Boss Mountain Molybdenum Mine. The Company has conducted systematic surface rock and soil sampling, geology and geophysics. This work has identified several new bulk-tonnage copper-molybdenum-gold-silver targets that are untested by drilling.

Hawk Property is underlain by geology of the Quesnel Terrane, which hosts numerous copper, copper-gold deposits and mines in B.C. Happy Creek has conducted systematic geochemistry, geology, geophysics trenching with limited drilling Property results include chip sampling at the Main Zone with 0.88% copper and 1.07 g/t gold across 5.0 metres and boulders nearby contain up to 4.5% copper and 18.0 g/t gold. Exploration work has confirmed the presence of bulk tonnage copper-gold-silver (alkalic porphyry) targets and exploration drilling is recommended as the next step.
Hen & Art DL Property contains sediment hosted gold-silver prospects sharing geological similarities with the Spanish Mountain or Eureka Peak deposits to the north. Trenching returned 2.1 metres of 3.98 g/t gold and 2.0 metres of 4.20 g/t gold and up to 35.06 g/t gold in grab samples at the Hen and Dyke zones, respectively. Up to 42 g/t gold over 1.0 metre in a quartz vein occur at the DL adit, and to the southeast, drill hole GL 10-3 returned 72.5 metres of 4.03 g/t silver, including 20.0 metres of 8.5 g/t silver and is thought to warrant further exploration.

Management

David Blann, President, CEO, Director, P.Eng., has been engaged in precious and base metal exploration, development and production stage projects for over 30 years. He has worked predominantly within Canada and the U.S.A., as well as in Mexico, Chile and West Africa. Within central British Columbia, Canada, he has been involved in the discovery of a number of epithermal gold-silver and porphyry copper systems. Mr. Blann has been a director or vice president of several junior mining companies and designed the strategy and assembled the projects as founder of Happy Creek Minerals.

Walter Segsworth, Director, Chairman, has over 40 years of experience in mining throughout Canada and overseas and has served as a senior officer of several mining companies including Westmin Resources, where he was President and CEO, and Homestake Mining, where he was President and COO. Mr. Segsworth is currently lead independent director of Pan American Silver and a director of Sabina Gold & Silver Corporation. Mr. Segsworth is past Chairman of the Mining Association of British Columbia and the Mining Association of Canada and was named B.C.’s Mining Person of the year in 1996.

Richard Lee, CMA, Chief Financial Officer, has spent over 30 years either working for public accounting firms or for companies that trade on a recognized stock exchange. Mr. Lee has been working with and for public companies which trade in Canada on the TSX-Venture Exchange as well as with companies registered with the SEC in the United States. In addition, he has been involved in numerous start-up ventures.

Rodger Gray, Director, has over 20 years of experience as a stockbroker and officer of an IDA member firm. He is currently with Altus Securities in Toronto, and was until recently, the president and chief executive officer of Toll Cross Securities, a Toronto-based, full-service broker dealer specializing in the junior resource sector. Mr. Gray has previously acted as a director and vice-president investment banking, institutional equities, with First Associates Investments Inc. and prior thereto as president of St. James Securities.

Paul Berndt, Director, is a resource development executive with extensive experience in taking projects to production, in particular, tungsten projects. He has a background in mineral process engineering and over 45 years’ experience. His expertise includes public company management roles, project development and process engineering as well as stakeholder relations. Mr. Berndt has managed many small to medium-sized projects from conception to production, with attention to safety and sound environmental practices.

Michael Cathro, P.Geo, B.Sc (Honours Geo Sciences, Director, has a career that includes work as an exploration geologist with major and junior mining companies in Canada and overseas, and 17 years with the B.C. Ministry of Energy, Mines and Petroleum Resources in technical and management roles. Prior to leaving government in early 2008, he led the team that successfully completed the aboriginal consultation, environmental review and permitting of the New Afton copper-gold project, now one of the largest underground metal mines in Canada. Mr. Cathro has served as vice president for several junior resource companies and as Chair of Geoscience B.C.

Sassan Liaghat, PhD, Geology, Senior Geologist/Project Manager, has a background in technical research related to mineral deposits at McGill, U.B.C., and the Mineral Deposits Research Unit (MDRU). He also gained valuable field experience as an exploration geologist with Amarc Resources and Nova Gold Resources in B.C. Mr. Liaghat has worked full time with the Company since early 2009 and manages the Company’s field exploration team and the Company’s GIS and mapping database.
On January 25, 2019, Happy Creek announced the completion of a private placement for gross proceeds of C$ 72,450 through the sale of 463,000 common shares at a price of C$ 0.15 per share.

Investment comments:

Happy Creek’s Fox Tungsten and Rateria - West Valley Copper properties located in B.C. are at a more advanced stage of exploration, including resource definition and expansion, as well as engineering and economic evaluation stage for Fox, a new discovery for tungsten. The total Indicated Resource of the Ridley Creek Zone on the Fox Property contains 4.8 million kg WO3 and the total Inferred Resource contains 6.96 million kg WO3 for the Ridley Creek, BN and BK Zones combined. All mineralized zones are open to further expansion. Plans include increasing the resource base and performing a Preliminary Assessment (“PEA”) to advance Fox as a new high-grade tungsten project in the western world.

Happy Creek’s Rateria - West Valley Property adjoins and surrounds the southern end of Teck’s Highland Valley Copper Mine Property, Canada’s largest copper producer. Drill highlights on the discovered two new copper zones have identified continuous and positive grades and include 95.0 metres of 0.67% copper, 250.0 metres of 0.25% copper from Zone 1 and 152.5 metres of 0.35% copper, 0.06 g/t gold and 105.5 metres of 0.37% copper, 0.14 g/t gold, 0.005% molybdenum and 0.63 g/t rhenium in Zone 2. High grades such as 5.0 metres of 4.4% copper also occur. There is thought to be clear resource potential in both Zone 1 and 2.

Based on its Fox tungsten discovery having the potential to emerge into a quality high-grade tungsten development project among the best in the western world and the Rateria - West Valley Property, having proven that new copper zones can be found with similar grade as Teck’s Highland Valley Copper Mine, in my view, Happy Creek, at a current depressed market valuation of C$ 12.6 million, offers a high investment leverage potential.

My 2019 price target remains C$ 0.30.