

Yukon hard rock mining, development and exploration overview 2019

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Yukon Geological Survey

Lewis, L.L. and Casselman, S.G., 2020. Yukon hard rock mining, development and exploration overview 2019. In: Yukon Exploration and Geology Overview 2019, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 43–60.

Introduction

Yukon mineral exploration activity dipped slightly in 2019 (Fig. 1). Exploration expenditures were approximately \$105 million, compared to \$120 million in 2018. Development expenditures are estimated at \$240 million, primarily for the development of Victoria Gold Corp.'s Eagle mine (\$183M), and, to a lesser extent the advancement of Newmont Goldcorp.'s Coffee gold project and the reopening of the Minto gold-copper-silver mine by Pembridge Resources. Production dollars are attributable to operations at Victoria Gold's new Eagle mine and the newly reopened Minto mine of Pembridge Resources plc (Fig. 2).

The number of active exploration projects dropped significantly from 155 projects in 2018 to 80 projects in 2019. To some degree, this reflects the continuing tight equity markets. Thirty-six of the 80 projects spent more than \$1M, while 44 projects spent less than \$500 000. The majority of smaller projects received Yukon Mineral Exploration Program (YMEP) grant funding. YMEP funds were distributed to 33 hard rock and 18 placer exploration projects (see Torgerson, 2020 in this volume for more information). In terms of all Yukon projects, gold continues to be the most sought-after commodity, with 68% of the projects targeting it. The remainder of projects focused on exploring for lead-zinc, copper, silver, or nickel-PGEs, and to a lesser extent, tin, cobalt or vanadium.

Claim staking in 2019 was down significantly over the previous year to 2212 claims. The number of claims in good standing is 173,161, down from an all-time high of 252,902 in 2012 (Fig. 3). Drilling numbers were down slightly. Total drilling in 2019 was 221 596 m, compared to 246 282 m in 2018 (Fig. 4).

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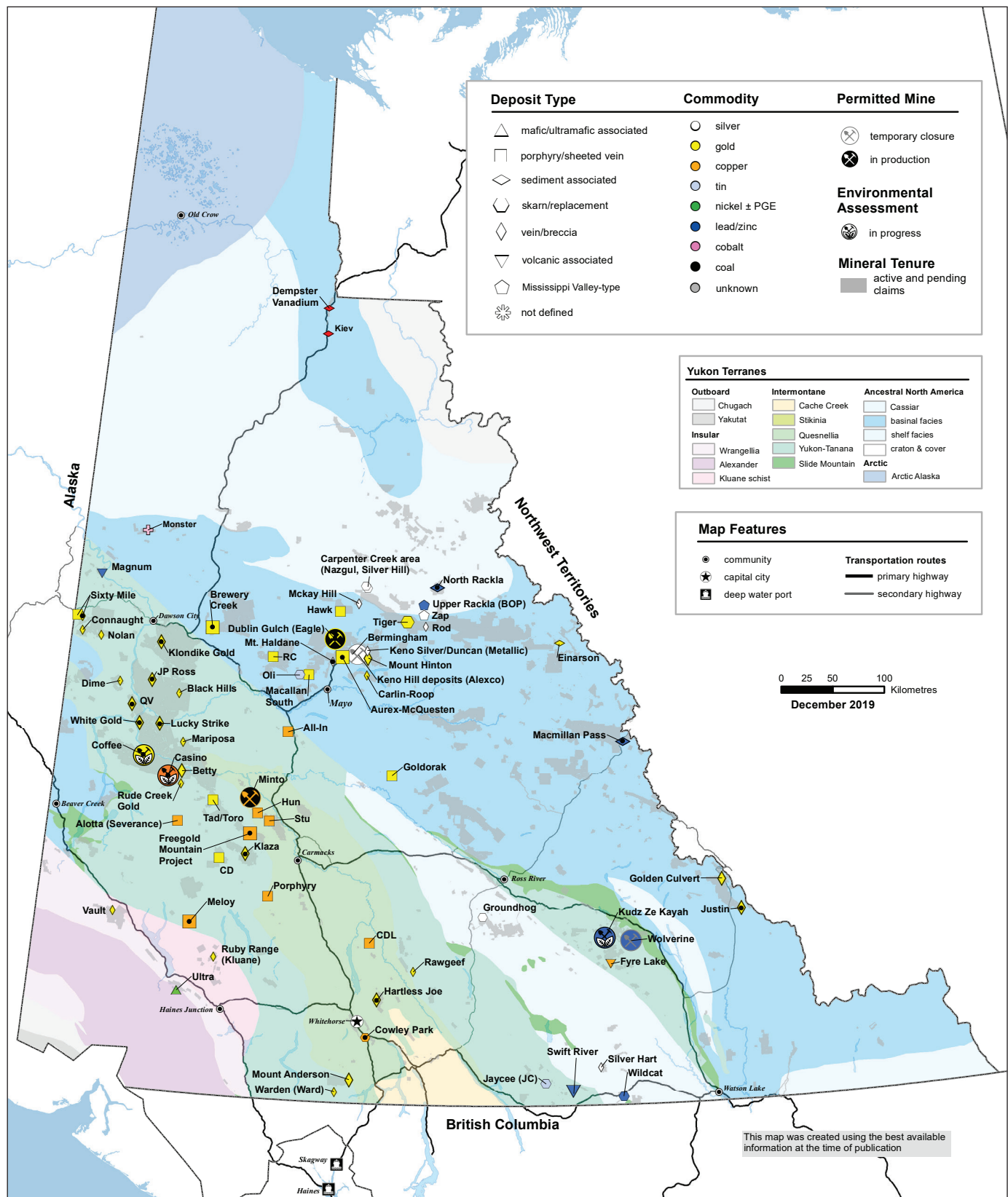


Figure 1. Yukon exploration projects, 2019. Large symbols represent projects with estimated expenditures \geq \$500,000; small symbols with $<$ \$500,000. Black dot in the centre of a symbol indicates that drilling constituted part of the exploration activities.

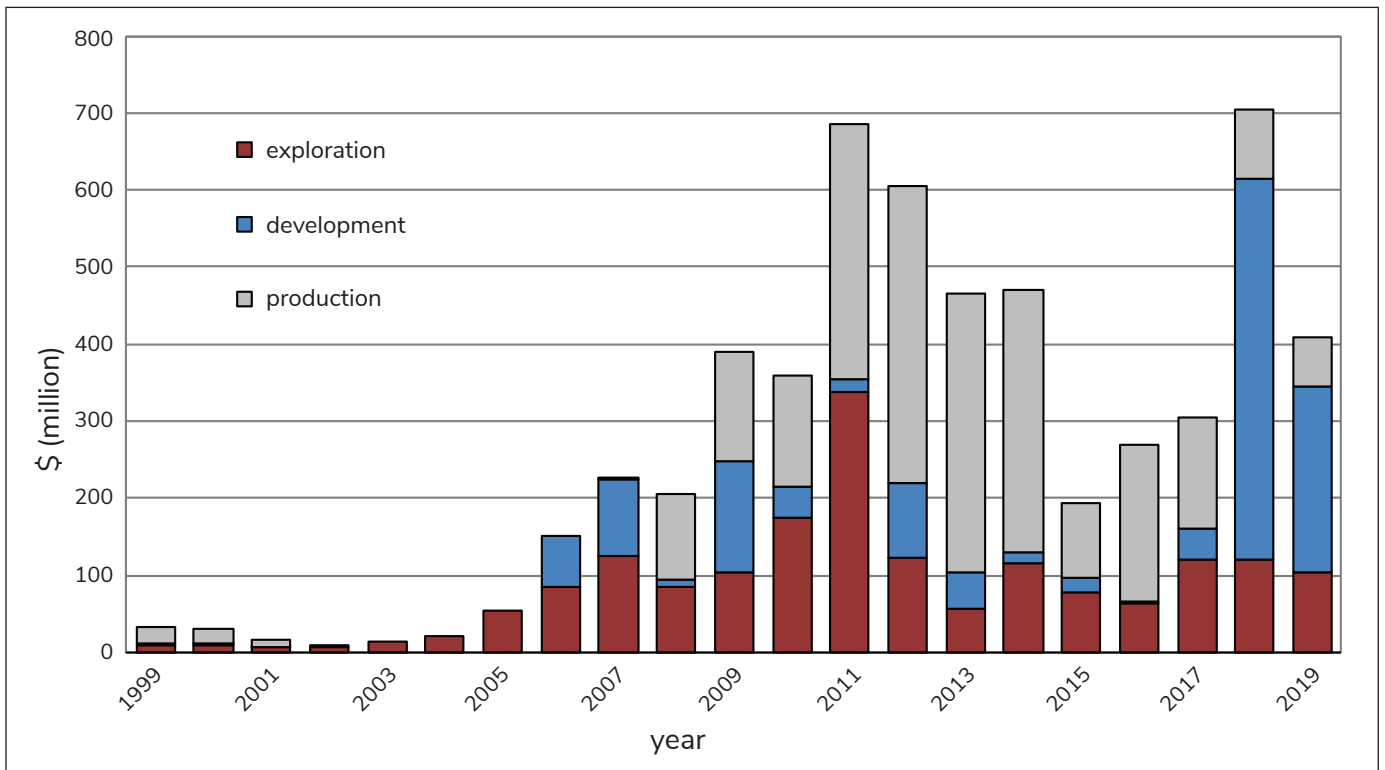


Figure 2. Estimated exploration and development expenditures on hard rock projects, 1999-2019.

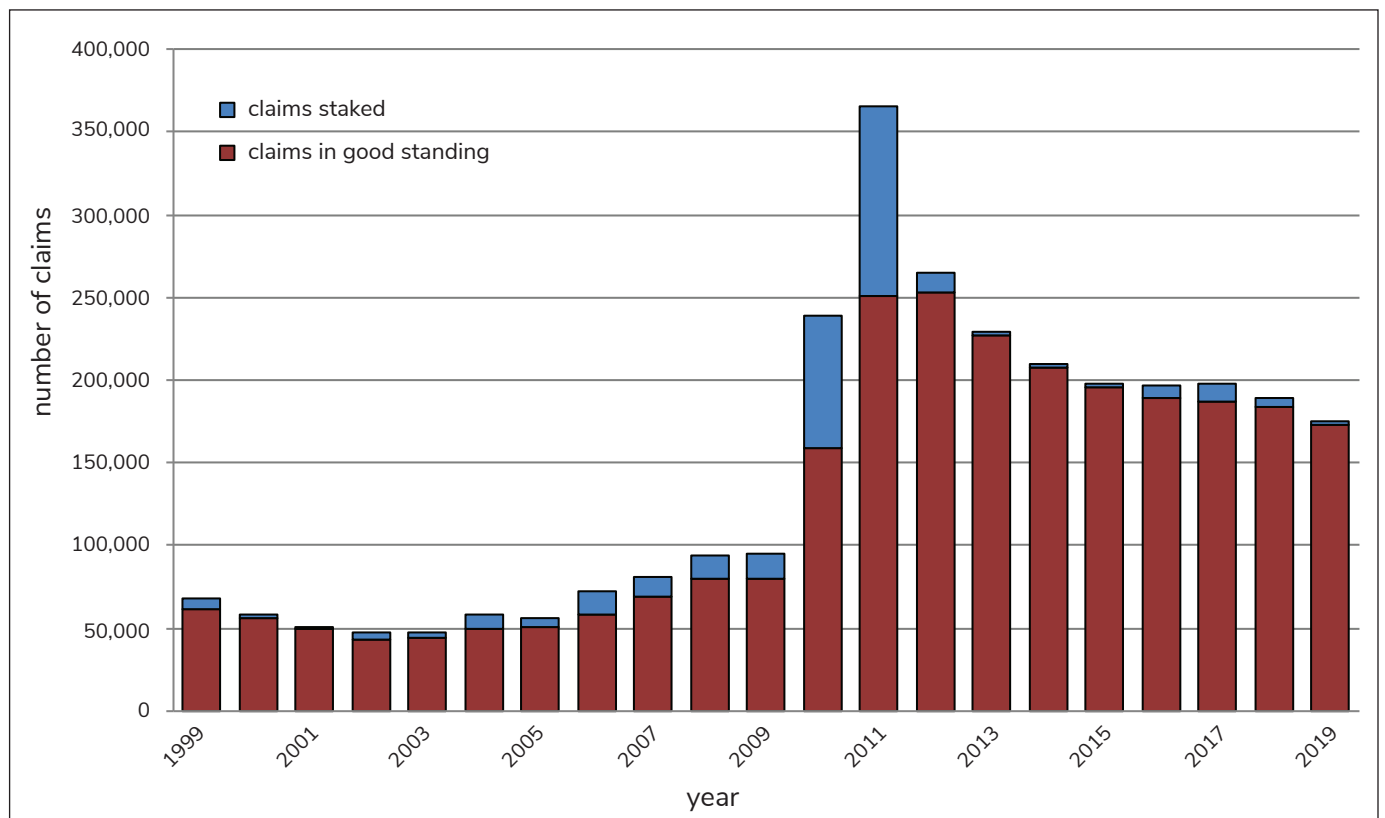


Figure 3. Hard rock claims staked and in good standing, 1999-2019.

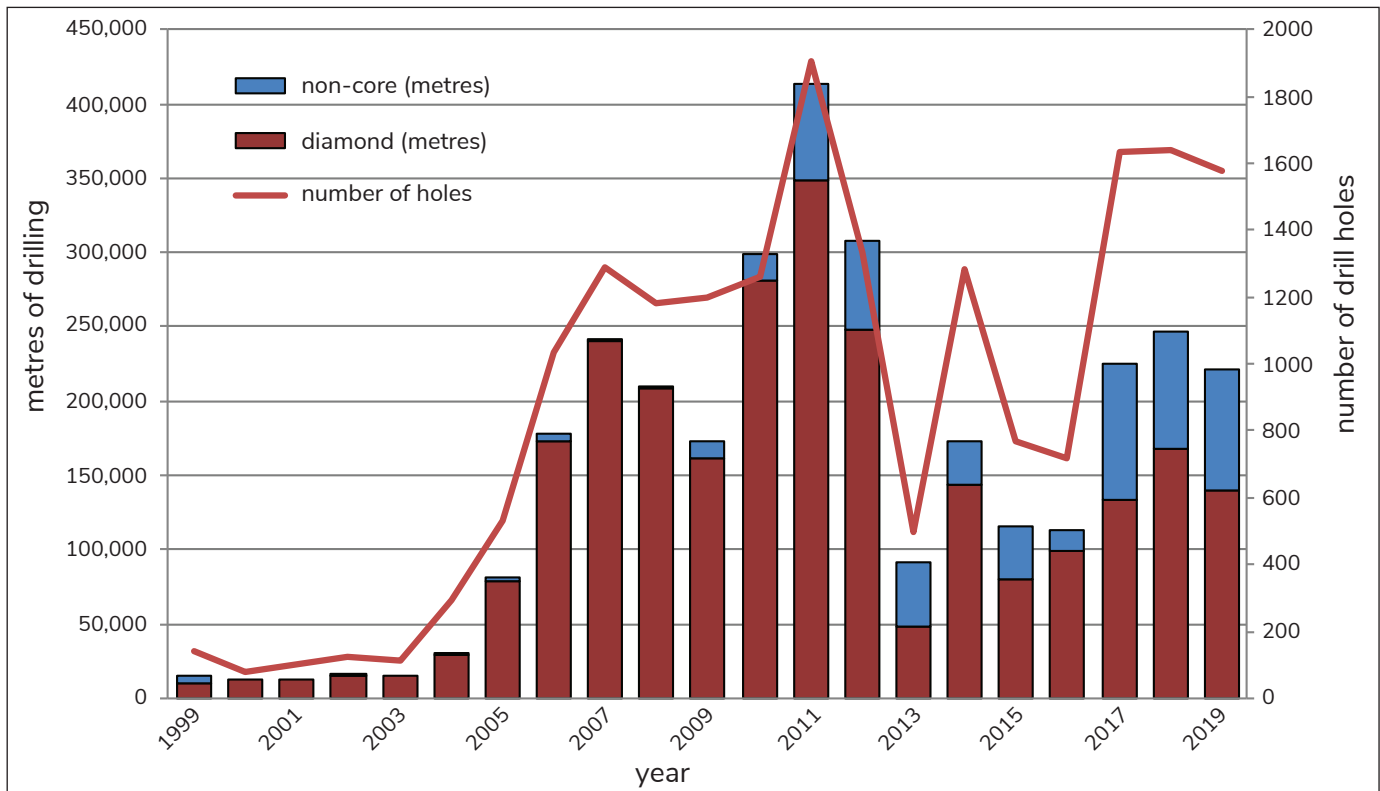


Figure 4. Diamond drilling and reverse-circulation or rotary air blast drilling, 1999-2019.

Mining and development

Hard rock mining

In October, 2018, Capstone Mining Corp. suspended mining activity at the Minto copper-gold-silver mine, after a tentative deal with Pembridge Resources plc (<https://www.pembridgeresources.com/>) fell through. However, continued negotiations through the winter and spring proved fruitful and the purchase was finalized in June, 2019. Pembridge completed the first

underground blast at Minto East in early October and milling operations were up and running by the end of the month.

Victoria Gold Corp. (www.vitgoldcorp.com) completed development of its Eagle intrusion-related gold deposit on its Dublin Gulch property after 26 months of construction (Fig. 5). The first gold pour was completed in September, 2019. Since that pour, the mine has produced approximately 13,000 oz of doré containing between 75 and 85% gold and between 7 and



Figure 5. Heap leach pad at Victoria Gold's Eagle Mine.

18% silver. The company announce an updated reserve in December with an increase of 0.6 Moz to 3.3 Moz and an increase in production to 220,000 ounces of gold per year from the open pit/heap leach operation at an all-in sustained cost of less than US\$774 per ounce gold. The mine life is +11 years.

Mine development

Newmont Goldcorp (<https://www.newmontgoldcorp.com/>) submitted its application for the Coffee gold mine to the Yukon Environmental and Socioeconomic Assessment Board (YESAB) in the spring of 2017. The 2.16 million ounce (Proven & Probable reserve) gold deposit is envisioned as an open pit/heap leach operation. The company is working to update the feasibility study while they await a mine permit. In 2019, the company explored the property with 30 000 m of diamond drilling and 60 000 m of RC drilling and plans to update the resource/reserve in early 2020. Drill results have not yet been released.

Alexco Resources Ltd. (www.alexcoresource.com) released the results of a pre-feasibility study for its Bermingham and Flame & Moth deposits in a technical report in May 2019. The report was based on the development of four deposits in the Keno Hill silver district: Bermingham (Fig. 6), Flame & Moth, Bellekeno and Lucky Queen, and envisioned an eight year mine life producing 1.18 million tonnes of ore at an average grade of 805 g/t Ag, 2.98% Pb, 4.13% Zn and 0.34 g/t Au. A new resource was calculated for the Bermingham deposit in March 2019 (Table 1). Its inclusion in the district resource increased the resource to 98.3 million ounces of contained silver. Alexco continued exploration in the district with 5100 m of diamond drilling at Bermingham to target a deeper structural zone which hosts the adjacent historic Hector Calumet deposit. K-19-0740 intersected the



Figure 6. Bermingham mine portal.

Bermingham footwall vein structure at 580.3 m depth and averaged 1414 g/t Ag over 8.15 m true width. The drill program also intersected the Bear vein at depth, with 4.13 m grading 1331 g/t Ag in drill hole K-19-0733. In December, the company announced a new discovery 3.7 km north of Bermingham called the Inca, where drilling intersected 7.44 m grading 832 g/t silver in hole K-19-0749.

BMC Minerals Ltd. (<http://bmcminerals.com>), a private company, submitted its application to YESAB in March 2017, to develop the ABM volcanogenic massive sulphide deposit of the Kudz Ze Kayah property. The project was moved to the “Screening Stage” of the process in January 2018 and “Draft Screening Report” stage in July 2019. Also in July, BMC released a positive feasibility report for the project. It reported a probable mineral reserve of 15.7 Mt grading 5.8% Zn, 1.7% Pb, 0.9% Cu, 138 g/t Ag and 1.3 g/t Au. The operation will be a majority open pit (89%) with minor underground (11%) mine, processing 2 million tonnes per year with a 9 year mine life. Preproduction capital costs are estimated at \$381M. The company also performed a small surface program at its nearby Fyre Lake VMS property.

Table 1. NI 43-101 compliant mineral resource for the Bermingham deposit.

zone	category	tonnage	Ag (g/t)	Au (g/t)	Pb (%)	Zn (%)	contained Ag (oz)
Bermingham	Indicated	1 102 300	930	0.1	2.4	1.7	32,959,000
	Inferred	509 400	717	0.2	1.7	1.5	11,743,000
total							44,702,000

Western Copper and Gold Corp. (www.westerncopperandgold.com) continues to advance its Casino porphyry copper-gold-molybdenum project in western Yukon. Drilling in 2019 (72 diamond drillholes, 13 592 m) intersected one of the highest grade intercepts on the deposit to date: 55.1 g/t Au over 2.97 m in hole DH19-21, starting at a depth of 147.98 m. High-gold intercepts have been correlated with faults associated with late phase alteration. The mine was originally submitted to YESAB for assessment in January 2014, but was bumped up to the “Panel Review” process, the highest level of assessment under the Yukon Environmental and Socio-economic Assessment Act, in February 2018. The company is preparing the necessary documentation to initiate the Panel Review process.

The quartz mining license and water license for Golden Predator Mining Corp.’s (www.goldenpredator.com) Brewery Creek gold mine were confirmed in July 2019. With these licenses, the Company is authorized to restart mining activities that follow the previously assessed mine plans without further assessment and review. There is slightly more than two years remaining on each of the licenses. The company is reviewing its 2011 feasibility study in order to advance the project. In 2019, Golden Predator carried out a large program involving drilling, infrastructure assessment, camp expansion, review of the previous mine plan, and assessment of reprocessing the historic heap leach pad. The company conducted substantial diamond and reverse circulation drilling in order to upgrade and expand known resources. The assessment of the historic heap leach pad involved drilling 31 holes to collect a 22 tonne sample for metallurgical testing. The company also conducted ground magnetics/VLF and ELF resistivity geophysical surveys over select deposits to better understand and delineate the ore-controlling structures on the property.

Yukon Zinc Corp.’s (www.yukonzinc.com) volcanogenic massive sulphide Wolverine Mine in eastern Yukon has been in temporary closure since 2015. The company owes \$26.4M in securities in addition to the \$10.5M already paid as security to cover the cost of environmental protection. In September 2019, a Yukon judge ordered that Yukon Zinc be put into receivership.

PricewaterhouseCoopers, the receiver, has taken over care and maintenance of the site. The Government of Yukon has been managing water issues at the site using some of the posted security. A water treatment plant has been installed to treat water in the tailings storage facility. The water will be treated and discharged over the next couple of years to reduce the amount of water stored in the tailings facility. Water currently in the tailings facility remains within safe operating levels.

Significant exploration projects

Precious metals

Atac Resources Ltd. (www.atacresources.com) received a positive recommendation from YESAB for a 65 km access road to advance its Tiger gold deposit toward development (Fig. 7). However, as part of the approval process, the Yukon government and First Nation of Na-cho Nyäk Dun agreed to a planning process for the Beaver River watershed within which the road would be constructed. The planning committee is hoping to complete the land use plan by November 2020. The 490,000 ounce Tiger deposit lies at the western end of Atac’s extensive Rackla gold belt claim block within an area called the Rau Trend. Atac continued to explore in 2019 with sampling, mapping, drilling and ground IP and magnetic geophysical surveys. Highlights of the 2019 drilling program (4 holes, 395.02 m) include drill hole RAU-19-166, which intersected 3.04 m of 13.40 g/t Au near surface. Atac has begun a preliminary economic assessment, which will include an updated resource estimate. Atac also explored a gold-copper skarn target, roughly 4 km east of the Tiger deposit; drilling at the Bobcat skarn target, intersected 17.75 g/t Au across 0.51 m in hole RPP-19-002.

White Gold Corp. (WGC; www.whitegoldcorp.ca) filed a new mineral resource estimate for the Golden Saddle and Arc deposits on the White Gold property in 2019 (Table 2). WGC’s 2019 exploration program was designed to expand Golden Saddle and Arc’s resources, follow up on the 2018 discovery of the Vertigo zone at the JP Ross property and to prove up further resources at the VG deposit. In addition to a planned 17 000 m diamond drilling program, the company performed soil sampling, prospecting, GT Probe sampling, trenching

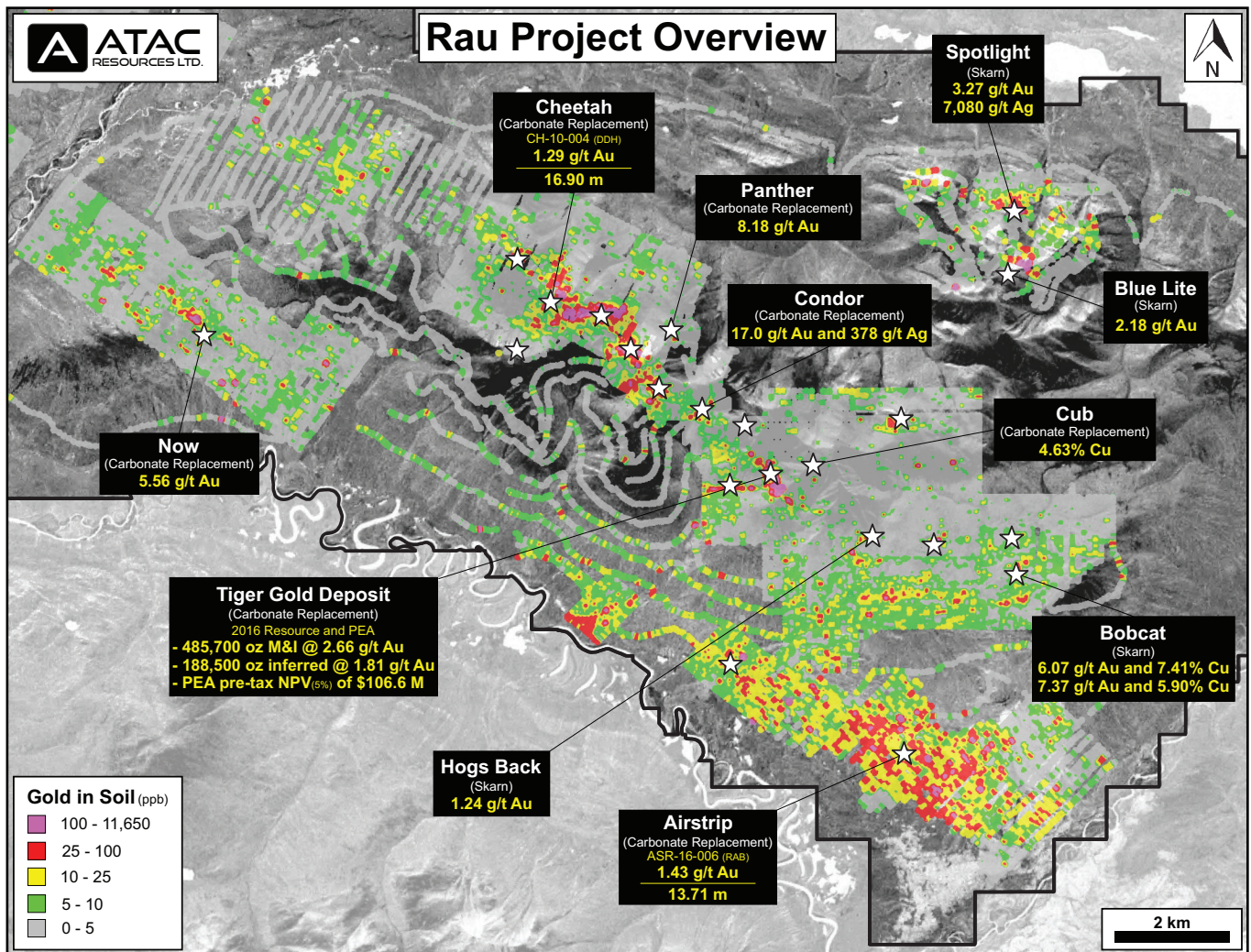


Figure 7. Sketch showing location of Atac's Tiger deposit and surrounding exploration targets. Figure from Atac Resources' website. Accessed Nov 28, 2019.

Table 2. NI 43-101 compliant mineral resource for the Golden Saddle and Arc deposits.

zone	type	category	cut-off (g/t)	tonnage (000s)	Au (g/t)	contained Au (oz)
Golden Saddle	open pit	Indicated	0.5	13 681	2.30	1,009,700
		Inferred		5120	1.58	259,600
	underground	Indicated	3.0	86	4.40	12,200
		Inferred		390	4.36	54,700
Arc	open pit	Indicated	3.0	562	0.98	17,700
		Inferred	0.5	5186	1.17	194,500

and RAB/RC drilling on a number of WGC properties in the region (Fig. 8). The GT Probe and surface sampling of outcrop at JP Ross identified several new high-grade gold trends within 10 km of the Vertigo discovery. Diamond drilling on the Golden Saddle extended the GS main zone 205 m down dip, established the continuity of the deposit through drilling the GS West zone and expanded mineralization beyond the envelope of the 2019 calculated resource. Significant drill results include hole WHTGS19D0198 – 3.59 g/t Au over 68.0 m at Golden Saddle. Diamond drillhole JPRVER19D0015 returned 11.64 g/t Au over 5.34 m near surface and a second interval of 18.46 g/t Au over 2.48 m from 92 m depth at Vertigo. Soil sampling (17,100 samples) at JP Ross and White Gold outlined and extended several trends and returned multiple samples over 1000 ppb. A new high-grade gold discovery, the Titan target, was made on WGC’s Hen property, with one soil sample assaying more than 100,000 ppb Au. Follow-up prospecting revealed fine-grained visible gold in subcrop of quartz-sericite altered mafic gneiss. Drilling identified a new discovery 2 km west of the Golden Saddle: Ryan’s surprise. Diamond drillhole WHTRS19D012 intersected two zones of mineralization: 2.66 g/t Au over 11.00 m and 2.10 g/t Au over 31.73 m.

Infill and step-out diamond drilling on the Arc extended mineralization and filled gaps in the geological model. Metallurgical tests from the Arc deposit were positive, resulting in recovery of 85.2% of gold, proving it to be non-refractory. Results from drilling at the QV gold deposit have yet to be released.



Figure 8. Greenfields target 15 km west of Vertigo that assayed 100 g/t Au in soil.

Victoria Gold Corp. (www.vitgoldcorp.com) continues to explore the larger Dublin Gulch property outside the Eagle deposit. The 2019 exploration program consisted of trenching (5400 m) and drilling (9 holes, 1617 m) at the Raven target within the Nugget zone, 12 km east of the Eagle deposit. The program concentrated on the central part of an 1800 × 900 m gold + arsenic + bismuth anomaly defined by soil sampling in 2018. Drill hole NG19-012C intersected 166.4 m of 0.46 g/t Au, including 42.4 m of 1.06 g/t Au. The trenching program uncovered multiple scorodite, bismuth and siderite-bearing sulphide veins. Structural control of the mineralization is evident within the trenches and future work will focus on the large, high-grade, dilatational fracture zone which is interpreted to host the Raven gold mineralization.

Rockhaven Resources Ltd. (www.rockhavenresources.com) carried out a late season diamond drilling program at its epithermal gold-silver Klaza property (5750 m, 33 holes), including definition drilling and drilling adjacent to the area of the current mineral resource estimate. The program expanded the Pearl zone, discovered in 2017, and led to the discovery of the new Eastern Chevron zone. Results are pending.

Klondike Gold Corp. (www.klondikegoldcorp.com) explored its Klondike Gold property (Fig. 9) south of Dawson City with 94 drill holes testing various targets. Seven drill holes (595 m) were completed at Gay Gulch; results include 29.80 m grading 0.40 g/t Au in drill hole EC19-244 and two high-grade short intercepts in drill hole EC19-248 – 0.50 m grading 6.07 g/t Au and



Figure 9. Historic shaft at the Stander zone at the top of Glacier Gulch on the Klondike Gold property.

0.50 m grading 9.66 g/t Au. Gay Gulch is one of several occurrences of gold quartz veins in brittle felsic host rock occurring near the northwest-trending Eldorado fault.

Aben Resources Ltd. (<https://www.abenresources.com/>) completed a drill program at its Justin gold property in southeastern Yukon. Four diamond drillholes (963 m) tested the intrusion-related POW zone while 20 rotary air-blast (RAB) holes targeted the recently discovered Lost Ace zone, which is more analogous to an orogenic-style gold occurrence. Drilling at POW targeted a magnetic high and intersected massive sulphide, mineralized skarn and mineralized quartz veins. Results include 1.5 g/t Au over 15.4 m in drill hole JN19020. RAB drilling at the Lost Ace zone intersected mineralized phyllite/quartz-pebble conglomerate and returned 0.9 g/t Au over 1.5 m in drill hole JN19026.

In 2019, Triumph Gold Corp. (www.triumphgoldcorp.com) focused its exploration efforts on deep porphyry targets at the WAu Breccia and Blue Sky zones, as well as testing an IP anomaly at the Big Red zone on its Freegold Mountain property. The strategy proved successful with an intercept of 601.80 m averaging 1.1 g/t gold-equivalent at the WAu Breccia and 304.39 m grading 0.638 g/t Au, 5.9 g/t Ag and 0.23% Cu in drill hole RVD19-04 at Blue Sky. Results for drilling at the Big Red have not yet been reported. Results are also pending for the trenching, mapping and hyperspectral surveys carried out at the Goldstar/Irene epithermal gold target, the Cabin porphyry target and the Tinta Hill polymetallic vein deposits.

Alianza Minerals Ltd. (<https://alianzaminerals.com/>) explored its Mt. Haldane property, a high-grade silver target, with four diamond drillholes (963 m). The program tested the Bighorn soil anomaly with its first drill holes, located almost 3 km away from known mineralization. Drill hole HLD19-15 intersected silver-bearing veins assaying 125.7 g/t Ag and 4.4% Pb over 2.35 m. Drilling at the Ross target returned only anomalous lead and silver but did intersect weakly mineralized structures that may be more prominent at depth. Results from drilling the Middlecoff zone of the Mt. Haldane vein system are pending.

Strategic Metals Ltd. (www.strategicmetalsltd.com) worked on 15 properties in Yukon in 2019 and completed small drill programs at the Hartless Joe, Meloy and Sixty Mile projects. Results from the drilling are pending. The company explored the Mount Hinton gold-silver property with soil sampling, prospecting and geological mapping. Spectacular results were received from prospecting where a grab sample from a quartz talus train assayed 2340 g/t Au and 497 g/t Ag. The outcrop source of the train, an altered and oxidized breccia, assayed 33.3 g/t Au and 654 g/t Ag. Rock sample assays from the main soil anomaly area included 15.9 g/t Au with 9.6 g/t Ag and 9.26 g/t Au with 1.59 g/t Ag.

Banyan Gold Corp. (www.banyangold.com) completed a first-phase eight-hole 1000 m drill program early in the summer at its road-accessible Aurex-McQuesten gold project, near Mayo, Yukon. This program returned several long intervals of lower grade gold punctuated by higher grade intervals, e.g., AX-19-31 assayed 0.48 g/t Au over 85.8 m, including 4.6 m of 1.42 g/t Au and 0.4 m of 48.1 g/t Au. Hole MQ-19-44 returned 0.94 g/t Au over 71.4 m, including 3.1 g/t Au over 8.8 m. A follow-up diamond drill program, consisting of 3385 m in 26 holes, and a reverse-circulation program (497 m in 5 holes) was designed to expand the Airstrip and Powerline targets. All holes intersected broad intervals of gold mineralization. Highlights include hole MQ-19-49, which intersected 36.2 m of 0.61 g/t Au, including several higher grade intervals, e.g., 4.54 g/t Au over 2.3 m at 84.6 m depth (Fig. 10).



Figure 10. Trench on Banyan Gold's Aurex-McQuesten property.

Luckystrike Resources Ltd. (<https://www.luckystrikeres.com/>) drilled four diamond drillholes (1105.82 m) on the Monte Carlo zone of the Lucky Strike property in the White Gold district to test a 1.8 km IP chargeability anomaly. Drill hole DDLS-19-01 intersected ten separate intervals assaying between 0.45 g/t Au and 2.68 g/t Au.

Stratabound Minerals Corp. (<https://www.stratabound.ca/>) carried out road construction and an extensive trenching program at its greenfield Golden Culvert gold project in southeastern Yukon. A total of 23 trenches were excavated and resulted in the extension of the Main Discovery Vein structure. The best result came from trench TR1923-B which assayed 24.41 g/t Au over 6.0 m and included the highest gold assay on the property: 95.0 g/t Au over 1.5 m. This occurrence has been interpreted as a new vein, the Mid-Vein, which occurs between the Main Vein and West 1 Vein. Four other new gold-bearing quartz vein structures were also discovered through trenching at the Main zone, the highlight of which returned 12.30 g/t Au over 1.0 m within 7.26 g/t Au over 5.0 m in trench TR1917-B.

Late season reconnaissance work 7 km north of the Main Discovery zone uncovered a new outcropping gold-bearing vein exposed over 15.8 m of strike length, which assayed 1.02 g/t Au over 1.0 m.

Metallic Minerals Corp. (www.metallic-minerals.com) completed a broad-scale surface geochemical sampling program in the 2019 field season, which included widespread soil sampling across the underexplored eastern half of the Keno Silver project, soil sampling at Duncan Creek, along with smaller geochemical programs within the main claim block. Work was also completed in the Keno North region, which encompassed a small soil program at McKay Hill, and two YMEP programs composed of prospecting, rock, and soil sampling in the Carpenter Creek area.

CMC Metals Ltd. (www.cmcmetals.ca) explored its Silver Hart silver-lead-zinc property in southern Yukon with soil sampling, sampling across the waste pile, channel sampling in the TM pit zone and 16 diamond drillholes (1048 m). At the TM pit, sampling returned 26 m of 258.6 g/t Ag, 10.16% Zn and 0.6% Pb (Fig. 11).



Figure 11. Geologist Ryan Versloot at the TM pit zone on CMC Metals' Silver Hart property.

Base metals

Fireweed Zinc Ltd. (<http://www.fireweedzinc.com/>) continued to advance its Macmillan Pass sedimentary exhalative lead-zinc project (Tom and Jason deposits) through diamond drilling (16 holes; 2357 m), ground geophysics, soil sampling and mapping. Drilling highlights include 6.13% Zn and 0.95% Pb over 22.54 m true width in Tom North hole TS19-006 starting at 8.3 m depth. Near surface mineralization encountered in drilling at Tom North demonstrated proof of concept for its potential to be mined as an open pit operation. At the Boundary zone, previously thought to be a large tonnage, low-grade occurrence, Fireweed drilled significant high grade intervals within wider, lower grade intervals; NB19-001 intersected 250 m of 3.44% Zn, 0.10% Pb and 5.6 g/t Ag, but included 23.31 m of 16.35% Zn and 27.9 g/t Ag and 5.70 m of 12.16% Zn, 7.09% Pb and 109.3 g/t Ag. Hole NB19-002, returned 4.14% Zn over 230 m, including 7.94% Zn over 100 m.

Cantex Mine Development Corp. (www.cantex.ca) conducted the second largest exploration program in Yukon in 2019 at its North Rackla lead-zinc-silver project (Fig.12). The \$15M exploration program included ground gravity, electromagnetic, IP/resistivity

and magnetic surveys; and drilling. In April, 2019, the company announced a 78 hole, 18 000 m drill program mainly targeting the massive sulphide zone. The geophysical surveys were undertaken to help define the massive sulphide mineralization, between the Discovery and Extension zones, that lies under a cover of glacial till. The surveys were also run over the known boundary of the mineralized zone and over an area that could be a second mineralized zone parallel to the Massive Sulphide zone. Infill soil-talus sampling was also conducted adjacent to previous geochemical anomalies throughout the property. Diamond drilling at the Massive Sulphide zone was along a 760 m fence of 14 drill pads. Highlights of the 2019 drill campaign include drill hole YKDD19-042, which assayed 114 g/t silver, 9.34% lead and 12.37% Zn over 14.15 m.

Granite Creek Copper Ltd. (www.gcxcopper.com) acquired the Stu copper-gold project, contiguous with the Carmacks Copper property, in 2019 (Fig.13). The company carried out data compilation and preliminary field work, which included groundtruthing targets, sampling and claim staking. The compilation work resulted in the identification of several high-priority targets, including a new 2 × 4 km copper-in-soil anomaly along the northeastern side of the project.



Figure 12. Cantex's exploration camp at its North Rackla property.

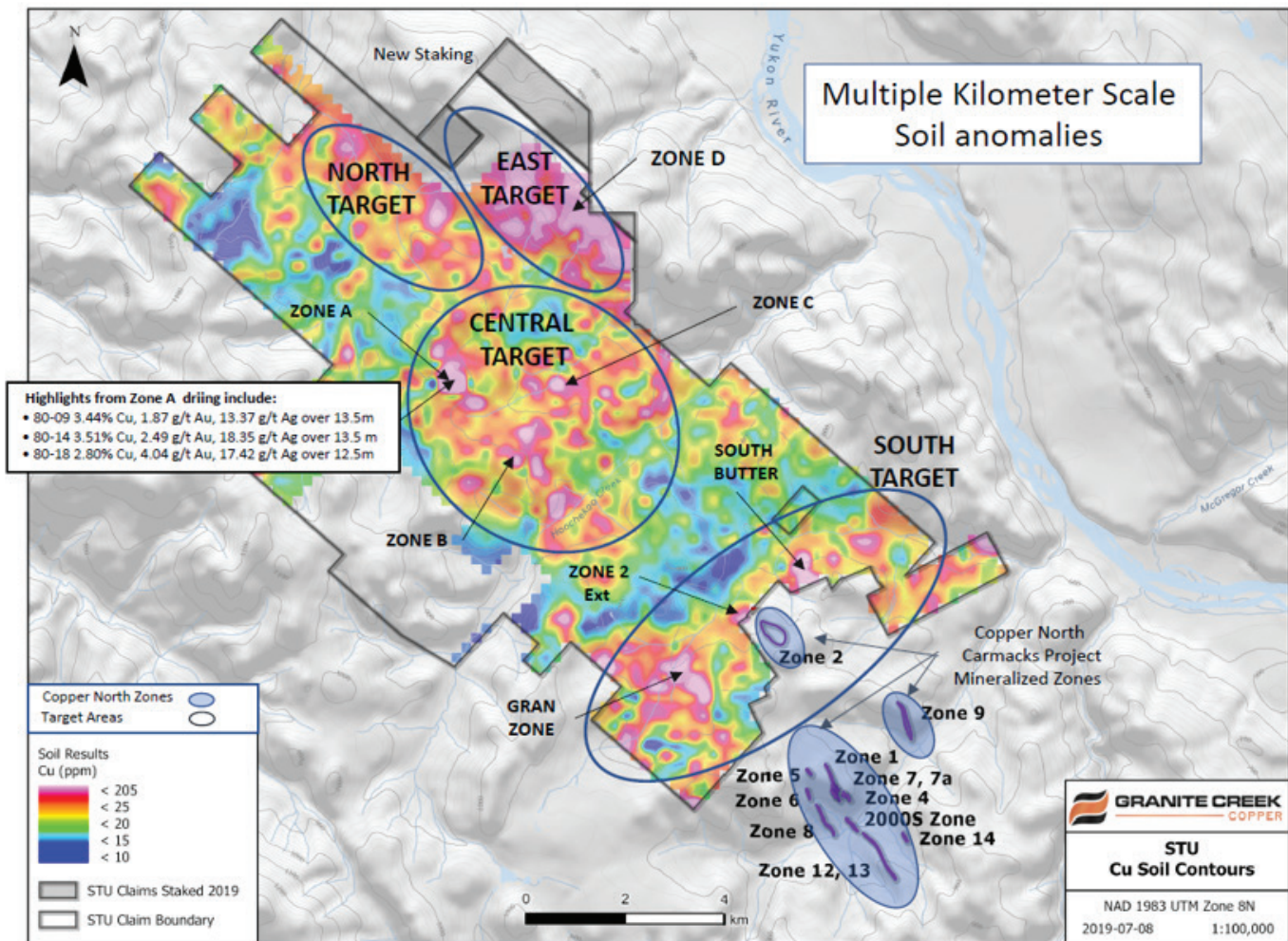


Figure 13. Sketch showing copper-in-soils and zones on Granite Creek Copper’s Stu property. Figure from Granite Creek’s website. Accessed Nov. 28, 2019.

Although gold was the most attractive commodity for Yukon explorers, one company, Go Metals Corp. (<https://gometals.ca/>) explored its Monster iron oxide-copper-gold property for copper and cobalt with geophysical surveys (ground gravity and IP/resistivity), alteration mapping, drone photogrammetry and digital elevation modelling and rock sampling. Alteration mapping revealed that intense chlorite and specular hematite alteration were important vectors to mineralization, and led to the discovery of many new surface copper showings. Assay results for the 90 grab samples collected ranged up to 22.3% Cu and 1.5% Co. The 2019 program generated several drill targets for the 2020 season through integration of geophysical data, surface geochemistry and alteration mapping.

Other critical metals being explored for include vanadium along the Dempster highway in northern Yukon and tin in southern Yukon.

References

Mining Plus Canada, 2019. NI 43-101 Technical Report Prefeasibility Study Of The Keno Hill Silver District Project Yukon Territory, Canada. Report prepared for Alexco Resource Corp. Issue Date May 8, 2019. Effective Date March 28, 2019.

Appendix 1. Exploration projects 2019.

Project	Owner/Optioner	MINFILE	Commodity	Deposit Type	Level of Advancement	YMEP-funded
All-In	Richards, Gord	-	copper	porphyry/sheeted vein	grassroots – never drilled	Yes
Alotta (Severance)	Strategic Metals Ltd.	115J 003	copper	porphyry/sheeted vein	grassroots – never drilled	Yes
Aurex – McQuesten	Banyan Gold Corp.	105M 060	gold	porphyry/sheeted vein	diamond drilled	Yes
Birmingham	Alexco Resource Corp.	105M 086	silver	vein/breccia	NI 43-101 defined resource	No
Betty	White Gold Corp.	115J 074	gold	vein/breccia	R/C or RAB drilled	No
Black Hills	White Gold Corp.	-	gold	vein/breccia	R/C or RAB drilled	No
Brewery Creek	Golden Predator Mining Corp.	116B 160	gold	porphyry/sheeted vein	NI 43-101 defined resource	No
Carlin-Roop	Mayo Lake Minerals	-	gold	vein/breccia	grassroots – never drilled	Yes
Casino	Western Copper Corp.	115J 028	copper	porphyry/sheeted vein	in permitting	No
CD	Strategic Metals Ltd.	-	gold	porphyry/sheeted vein	grassroots – never drilled	No
CDL	Walton, Lori	105E 027	copper	porphyry/sheeted vein	grassroots – never drilled	Yes
Coffee Project	Newmont-Goldcorp	115J 110	gold	vein/breccia	in permitting	No
Connaught	ATAC Resources Ltd.	115N 040	gold	vein/breccia	diamond drilled	Yes
Cowley Park	H. Coyne & Sons Ltd.	105D 230	copper	skarn/replacement	diamond drilled	No
Dempster Vanadium	DV196 Holding Corp.	116I 084	vanadium	sediment associated	diamond drilled	Yes
Dime	White Gold Corp.	-	gold	vein/breccia	diamond drilled	No
Dublin Gulch (Eagle)	Victoria Gold Corp.	106D 025	gold	porphyry/sheeted vein	operating mine	No
Einarson	18526 Yukon Inc.	-	gold	sediment associated	diamond drilled	Yes
Freegold Mountain Project	Triumph Gold Corp.	115I 107	gold	porphyry/sheeted vein	NI 43-101 defined resource	No
Fyre Lake	BMC Minerals	105G 034	copper	volcanic associated	NI 43-101 defined resource	No
GDR	K2 Gold Corp.		zinc-lead	not defined	grassroots – never drilled	No
Golden Culvert	Stratabound Minerals Corp.	105H 067	gold	vein/breccia	diamond drilled	No
Goldorak	Hulstein, Roger	105L 051	gold	porphyry/sheeted vein	grassroots – never drilled	Yes
Green Gulch	Strategic Metals Ltd.		gold	not defined	grassroots – never drilled	No
Groundhog	Strategic Metals Ltd.	105F 029	silver	skarn/replacement	diamond drilled	No

Appendix 1 (continued). Exploration projects 2019.

Project	Owner/Optioner	MINFILE	Commodity	Deposit Type	Level of Advancement	YMEP-funded
Hartless Joe	Strategic Metals Ltd.	105D 203	gold	vein/breccia	diamond drilled	No
Hawk	StrataGold Corp.	106D 035	gold	vein/breccia	grassroots – never drilled	Yes
Hun (Verlene)	536445 Yukon Inc.	115I 014	copper	porphyry/sheeted vein	grassroots – never drilled	Yes
Jaycee (JC)	Huber, Marty	105B 040	tin, copper, tungsten	skarn/replacement	diamond drilled	Yes
JP Ross	White Gold Corp.	115O 160	gold	vein/breccia	NI 43-101 defined resource	No
Justin	Aben Resources Ltd.	105H 035	gold	vein/breccia	diamond drilled	No
Keno District deposits	Alexco Resource Corp.	105M 047	silver	vein/breccia	permitted for mining	No
Kiev	Song, Tao	116I 071	vanadium	sediment associated	grassroots – never drilled	Yes
Klaza	Rockhaven Resources Ltd.	115I 067	gold	vein/breccia	NI 43-101 defined resource	No
Klondike Gold project	Klondike Gold Corp.	115O 072	gold	vein/breccia	NI 43-101 defined resource	No
Kudz Ze Kayah	BMC Minerals	105G 117	zinc-lead	volcanic associated	in permitting	No
Lucky Strike	Lucky Strike Resources Ltd.	115O 170	gold	vein/breccia	diamond drilled	No
Macallan South	Sans Peur Exploration Services Inc.	115P 059	gold	porphyry/sheeted vein	grassroots – never drilled	Yes
Magnum	Strategic Metals Ltd.	116C 118	zinc-lead	volcanic associated	diamond drilled	No
Mariposa	Pacific Ridge Exploration Ltd.	115O 075	gold	vein/breccia	diamond drilled	Yes
McKay Hill	Metallic Minerals Corp.	106D 038	silver	vein/breccia	historic drilling	No
McQ	Tectonic Metals Inc.	-	gold	vein/breccia	R/C or RAB drilled	No
McQ	Taku Gold Corp.	-	gold	vein/breccia	grassroots – never drilled	No
Meloy	Strategic Metals Ltd.	115G 070	copper	porphyry/sheeted vein	historic drilling	No
Minto	Pembridge Resources plc	115I 021	copper	porphyry/sheeted vein	operating mine	No
Monster	Go Metal Mining Corp.	116B 102	copper	iron oxide copper gold (IOCG)	historic drilling	Yes
Mount Anderson	Apex Resources Inc.	105D 029	gold	vein/breccia	historic drilling	No
Mount Hinton	Strategic Metals Ltd.	105M 052	gold	vein/breccia	historic drilling	No
Mt. Haldane	Alianza Minerals Ltd.	105M 032	silver	vein/breccia	diamond drilled	No
Nazgul	Metallic Minerals Corp.	106D 043	silver	skarn/replacement	grassroots – never drilled	Yes

Appendix 1 (continued). Exploration projects 2019.

Project	Owner/Optioner	MINFILE	Commodity	Deposit Type	Level of Advancement	YMEP-funded
Nolan	White Gold Corp.	-	gold	vein/breccia	R/C or RAB drilled	No
North Rackla	Cantex Mine Development Corp.	106C 088	zinc-lead	sediment associated	diamond drilled	No
Oli	Strategic Metals Ltd.	115P 030	tin, copper, tungsten	skarn/replacement	historic drilling	Yes
Porphyry	Mann, Bill	115H 038	copper	porphyry/sheeted vein	historic drilling	Yes
QV	White Gold Corp.	115O 004	gold	vein/breccia	NI 43-101 defined resource	No
Rawgeef	Bachynski, Ryan	-	gold	vein/breccia	grassroots – never drilled	Yes
RC	Sitka Gold Corp.	-	gold	porphyry/sheeted vein	grassroots – never drilled	Yes
Rod	Strategic Metals Ltd.	106C 087	silver	vein/breccia	grassroots – never drilled	No
Ruby Range (Kluane)	Strategic Metals Ltd.	115H 047	gold	vein/breccia	diamond drilled	No
Rude Creek Gold	Michelin Mining Corp.	115J 022	gold	vein/breccia	R/C or RAB drilled	Yes
Sawbuck	Strategic Metals Ltd.	-	silver	skarn/replacement	grassroots – never drilled	No
Silver Hart	CMC Metals Ltd.	105B 021	silver	vein/breccia	diamond drilled	No
Silver Hill Regional	Metallic Minerals Corp.	-	silver	skarn/replacement	grassroots – never drilled	Yes
Sixty Mile (BK 111)	Flow Metals Corp.	-	gold	vein/breccia	grassroots – never drilled	No
Sixty Mile (Toni claims)	Strategic Metals Ltd.	116C 153	gold	vein/breccia	diamond drilled	No
Sixtymile (BK 33)	Kreft, Bernie	116C 146	gold	vein/breccia	grassroots – never drilled	Yes
Stu	Granite Creek Copper Ltd.	115I 011	copper	porphyry/sheeted vein	historic drilling	Yes
Swift River	Prior, Glen	-	zinc-lead	volcanic associated	grassroots – never drilled	Yes
Tad/Toro	Triumph Gold Corp.	115I 031	gold	porphyry/sheeted vein	diamond drilled	No
Tiger (Rau Trend)	ATAC Resources Ltd.	106D 005	gold	skarn/replacement	NI 43-101 defined resource	No
Macmillan Pass (Tom Deposit)	Fireweed Zinc Ltd.	105O 001	zinc-lead	sediment associated	NI 43-101 defined resource	No
Ultra	Group Ten Metals Inc.	115B 008	nickel-PGE	mafic/ultramafic associated	historic drilling	Yes
Upper Rackla (BOP)	Kootenay Silver Inc.	-	zinc-lead	Mississippi Valley-type	grassroots – never drilled	No

Appendix 1 (continued). Exploration projects 2019.

Project	Owner/Optioner	MINFILE	Commodity	Deposit Type	Level of Advancement	YMEP-funded
Vault	Strategic Metals Ltd.	115G 027	gold	vein/breccia	grassroots – never drilled	No
Warden (Ward)	Burke, Ryan	105D 190	gold	vein/breccia	grassroots – never drilled	No
White Gold (Golden Saddle & Arc)	White Gold Corp.	115O 165	gold	vein/breccia	NI 43-101 defined resource	No
Wildcat	Lee, Gary	105B 001	zinc-lead	skarn/replacement	diamond drilled	Yes
Wolverine	Yukon Zinc Corp.	105G 072	zinc-lead	volcanic associated	care and maintenance	No
Zap	Strategic Metals Ltd.	106D 085	silver	Mississippi Valley-type	diamond drilled	No

Appendix 2. Drilling statistics by project, 2019.

Property	Optioner/Owner	# of drill holes	# of metres
Diamond Drilling			
Aurex	Banyan Gold Corp.	34	4382
Birmingham	Alexco Resource Corp.	10	5140
Brewery Creek	Golden Predator Mining Corp.	9	678
Casino	Western Copper Corp.	72	13 592
Coffee Project	Newmont-Goldcorp	194	30 203
Cowley Park	H. Coyne & Sons Ltd.	18	2300
Dublin Gulch	Victoria Gold Corp.	9	1617
Freegold Mountain Project	Triumph Gold Corp.	7	5557
Hartless Joe	Strategic Metals Ltd.	3	367
JP Ross	White Gold Corp.	46	9540
Justin	Aben Resources Ltd.	4	963
Keno District Deposits	Alexco Resource Corp.	19	3193
Klaza	Rockhaven Resources Ltd.	33	5750
Klondike Gold	Klondike Gold Corp.	94	8628
Lucky Strike	Lucky Strike Resources Ltd.	4	1106
Meloy	Strategic Metals Ltd.	3	941
Minto Mine	Pembridge Resources Plc		7000
Mt. Haldane	Alianza Minerals Ltd.	4	963
North Rackla	Cantex Mine Development Corp.	115	30 000
Tiger (Rau Trend)	ATAC Resources Ltd.	12	2700
Silver Hart	CMC Metals Ltd.	16	1048
Sixty Mile	Strategic Metals Ltd.	3	979
Tom Deposit	Fireweed Zinc Ltd.	16	2357
White Gold (Golden Saddle & Arc)	White Gold Corp.	29	6845
Total		754	145 849

Appendix 2 (continued). Drilling statistics by project, 2019.

Property	Optioner/Owner	# of drill holes	# of metres
Rotary Air Blast/Reverse Circulation			
All-In	Gord Richards	3	
Aurex	Banyan Gold Corp.	5	497
Brewery Creek	Golden Predator Mining Corp.	168	15 966
Coffee Project	Newmont-Goldcorp	550	60 366
JP Ross	White Gold Corp.	45	2924
Justin	Aben Resources Ltd.	20	592
QV	White Gold Corp.	8	870
Tiger (Rau Trend)	ATAC Resources Ltd.	7	275
White Gold (Golden Saddle & Arc)	White Gold Corp.	19	1257
Total		825	82 748