

# Yukon Mineral Exploration Program 2022 update

Sarah Ellis and Scott G. Casselman  
Yukon Geological Survey

Ellis, S. and Casselman, S.G., 2023. Yukon Mineral Exploration Program 2022 update. In: Yukon Exploration and Geology Overview 2022, K.E. MacFarlane (ed.), Yukon Geological Survey, p. 33–42.

## Program overview

The Yukon Mineral Exploration Program (YMEP) is a Government of Yukon funding program designed to support individual prospectors, partnerships and companies. The funding supports placer and hard rock exploration projects by reimbursing a percentage of approved exploration expenditures. The program comprises four different modules of varying reimbursement rates and maximum funding limits: grassroots, target evaluation and focused regional for hard rock, and placer.

Information about the program, the project modules, eligibility and levels of funding, and the YMEP guidebooks can be found at <https://yukon.ca/en/mineral-exploration-funding>.

Applications for funding and submission of project proposals are due by March 31<sup>st</sup> of each year.

## YMEP 2022

The total amount of YMEP funding available for the 2022–23 season was \$1.4M.

The program was oversubscribed: 63 applications sought in excess of \$2.2M of funding with a proposed total budget of \$5.9M. Application breakdown and the number of projects in each module that received funding are provided in Table 1.

Forty-two YMEP projects received funding in 2022 (Fig. 1; Appendix I). Gold continues to be the primary commodity targeted in the hard rock module and 69% of the applications targeted the precious metal. Twenty-four percent of the hard rock applications targeted copper as the primary commodity; 2% targeted nickel-copper-cobalt-PGE; and 2% targeted rare earth elements. All placer applications targeted gold.

**Table 1.** YMEP 2022 application and funded project numbers.

Module	Total Applicants	Total Funding Received
Grassroots	6	2
Focused regional	10	6
Target evaluation	23	17
Placer	24	17
<b>TOTAL</b>	<b>63</b>	<b>42</b>

\* [ymep@yukon.ca](mailto:ymep@yukon.ca)

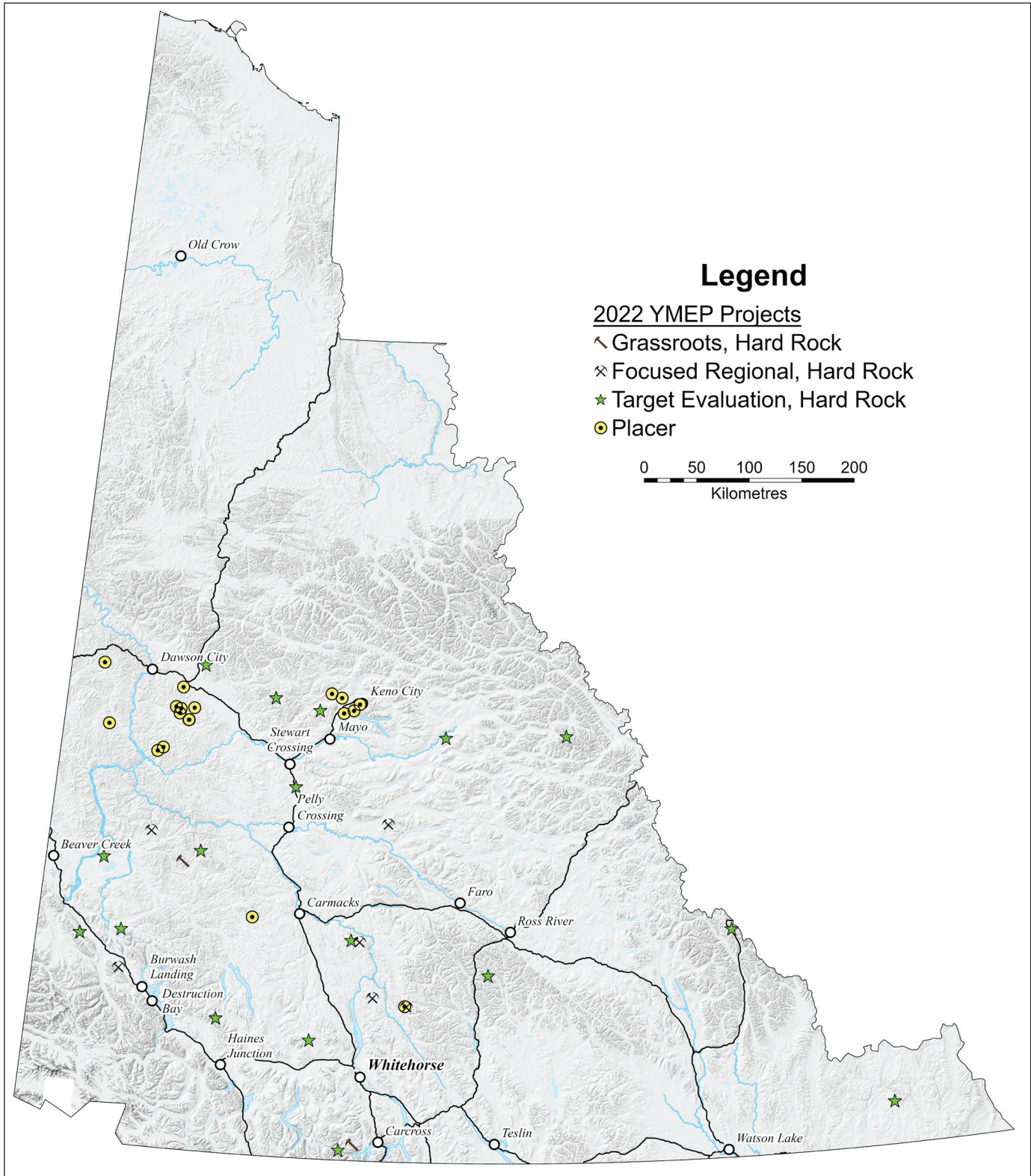


Figure 1. Location summary of 42 YMEP-funded projects in Yukon.

## Economic benefits of YMEP

The intent of the YMEP program is to support early-stage projects and stimulate new mineral discoveries in Yukon. A number of indicators are used to measure the success of the program, such as economic benefits, dollars leveraged, new discoveries made and option agreements entered (Table 2). The economic benefits of the program not only include

the potential for same-year discoveries and long-term investment, but also provide short-term local economic impacts within Yukon.

### Local economic benefits

YMEP funding recipients are asked to complete a survey on the economic impact and employment related to their program and submit it with their final report. The feedback received from YMEP-supported

**Table 2.** Examples of successful YMEP projects from 2000 to 2022.

YMEP#	Property Name	Total YMEP Contribution(s)	Optioned by	Total Exploration investment to date
04-041; 07-043	Coffee	\$35 000	Newmont/Gold Corp./Kaminak	~\$400.9M
03-079; 03-082	White Gold	\$25 000	White Gold Corp./Kinross Gold	~\$86.0M
10-118; 14-010	3 Aces	\$93 130	Northern Tiger / Golden Predator/Seabridge Gold	~\$46.8M
05-058	Andrew	\$14 400	Overland Resources	~\$36.9M
01-011; 15-030	Ice/Red Mountain	\$52 500	St James Gold	~\$15.8M
00-069; 06-005; 06-006; 15-014	Mariposa	\$76 000	Pacific Ridge	~\$7.3M
04-072; 05-043	Blende	\$30 000	Blende Silver Corp.	~\$7.1M
07-056; 08-012; 09-112	Toni/Sixty Mile	\$33 000	Radius Gold Corp.	~\$4.9M
03-023; 06-033; 09-137	Scheelite/Gold Dome	\$75 000	Golden Predator Canada Corp.	~\$4.4M
09-015	Clear Creek (Rhosgobel)	\$81 550	Victoria Gold Corp.	~\$4.2M
09-158	Prospector Mountain	\$30 750	Silverquest Resources Ltd.	~\$3.8M
10-132; 20-012	Clear Creek (Eiger)	\$54 950	Sitka Gold Corp.	~\$3.7M
09-046; 09-062; 10-008; 11-019; 12-049; 22-028	Golden Culvert	\$167 000	Stratabound Minerals Corp.	~\$3.8M
19-095; 20-073; 21-043; 22-023	Pike-Warden	\$114 790	Transition Metals Corp.	~\$0.3M
20-108; 21-041; 22-027	Catch	\$115 000	Atac Resources Ltd.	~\$0.3M

programs in 2021–22 indicates that 79% of total project expenditures stayed in Yukon. Of that 79%, 52% went to Yukon-based contractors, 19% went towards wages for Yukoners and 8% went towards Yukon-based suppliers (Fig. 2). In addition, 71% of the workers on 2021–22 YMEP-supported projects were Yukon residents. The results from the 2022–23 survey are unknown until the end of January when final reports and surveys are due.

## 2022 project spotlights and discoveries

Projects that result in new discoveries or significant advancement of a lesser understood prior discovery

have potential to lead to further investment in mineral exploration in Yukon. Every year a number of YMEP-funded projects stand out and demonstrate exceptional initial results. Some projects are able to raise additional funding on equity markets to conduct additional work in the same field season; others are able to enter into property option agreements. New discoveries commonly fuel property and district-scale exploration and some progress to advanced stages of exploration.

### Hard rock spotlight

#### *Sands of Time project*

Jack Milton received focused regional funding for the third year in a row to conduct fieldwork on his solely owned Sands of Time project. The property is located

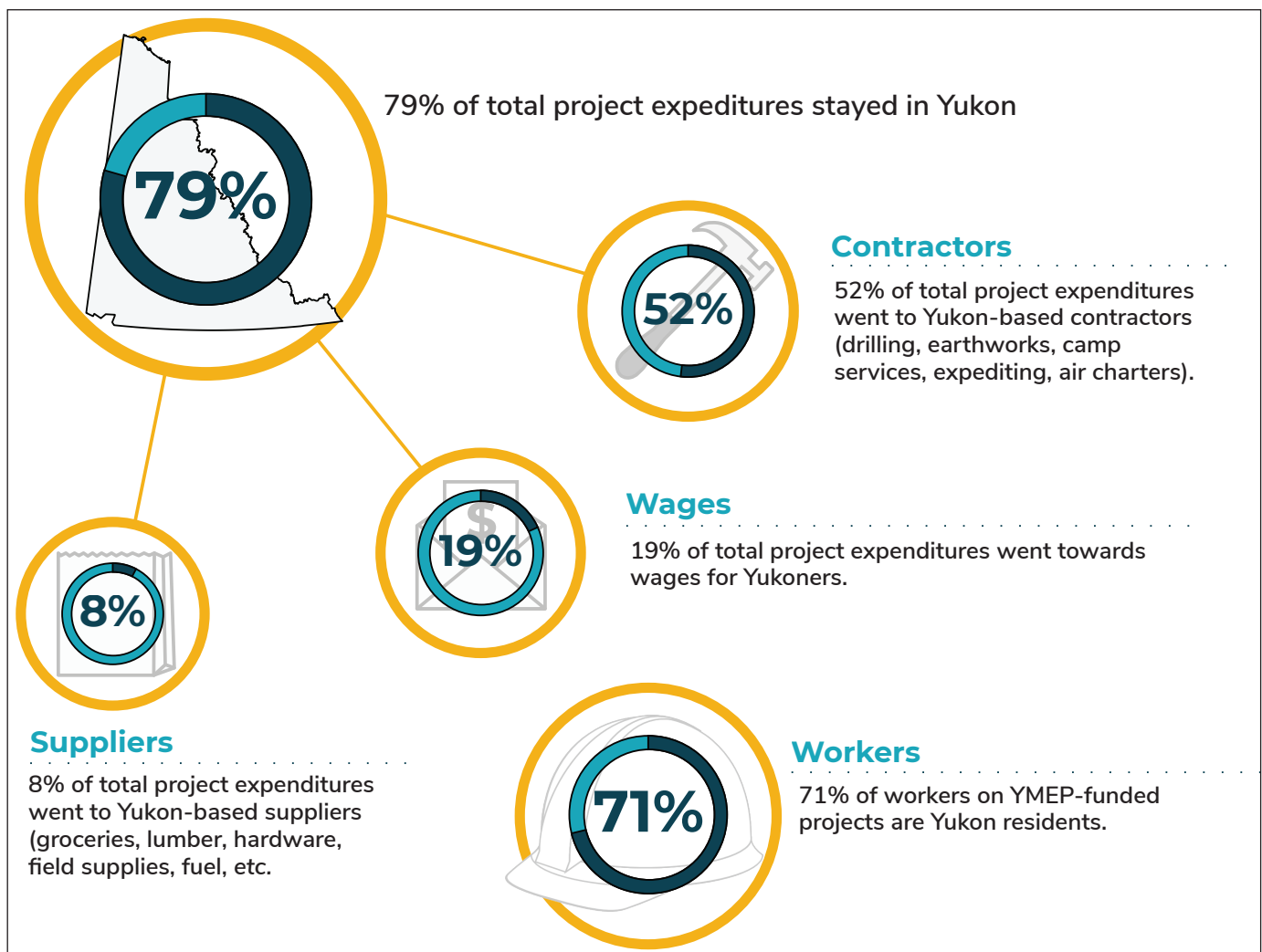


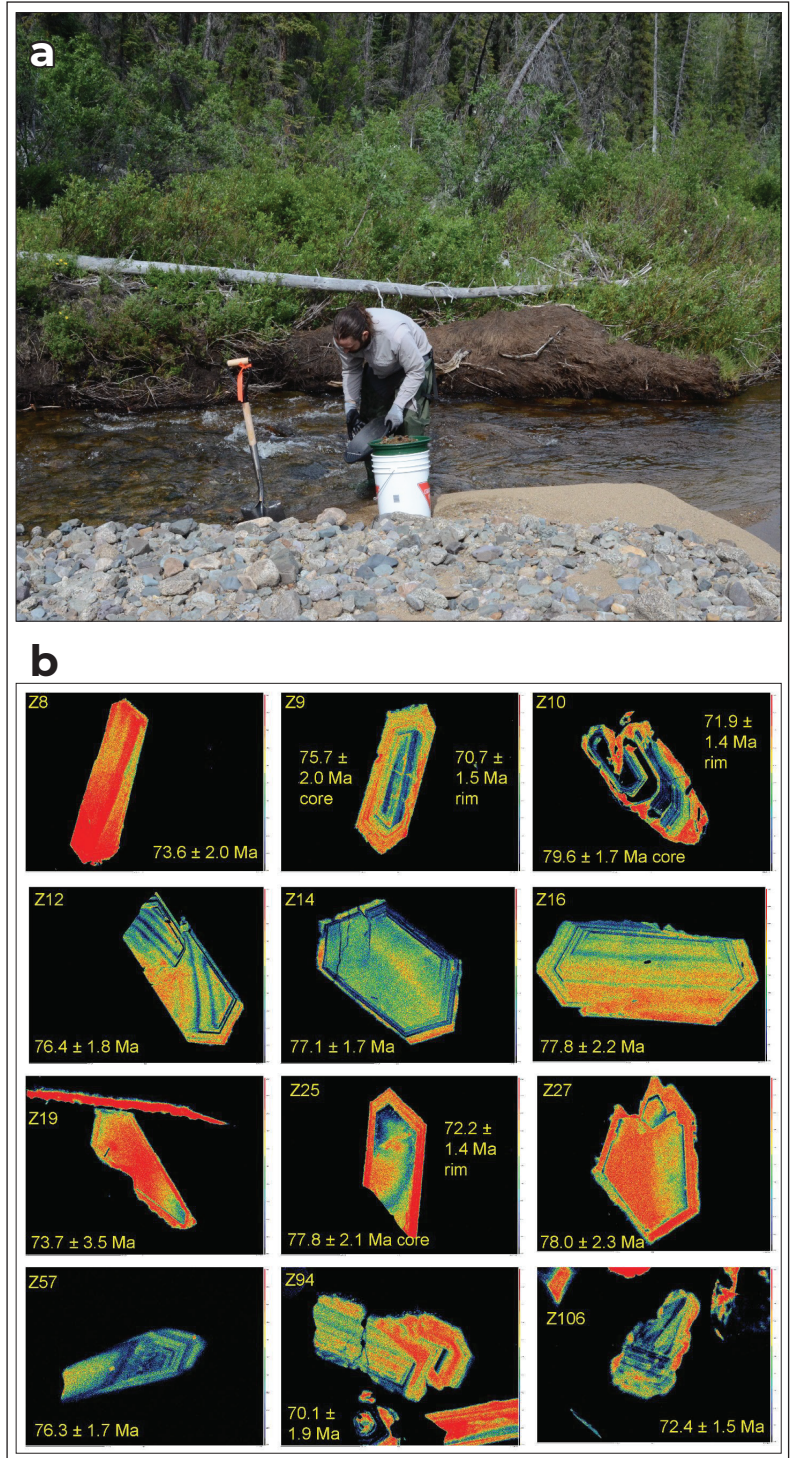
Figure 2. Statistical breakdown of how the YMEP program supports the Yukon economy.

in the Dawson Range approximately 12 km southwest of the Casino deposit. The project is assessing the exploration potential of drainages for hosting early-Late Cretaceous porphyry Cu-Au-Mo-Ag mineralization associated with the ~78–72 Ma Casino suite intrusive rocks. Prior fieldwork (2020–21) consisted of U-Pb geochronology of detrital zircon in stream sediments, zircon trace element geochemistry, porphyry indicator mineralogy of stream sediments, fine-fraction stream sediment geochemical sampling and soil sampling. Encouraging results from these programs identified several anomalous drainages, prompted staking of 123 claims and recommended further follow up.

In 2022, Jack staked an additional 150 claims and planned a field program comprising four days of soil sampling. Two days were spent following up on a Cu-Mo soil anomaly with a 100 × 100 m soil grid within a drainage shedding Casino suite zircons and gold grains. Another two days were spent soil sampling at the POL claims around the head of a drainage containing anomalous Casino suite age zircons and gold grains (Fig. 3). Results of the 2022 program have defined a copper-in-soil anomaly approximately 800 × 200 m within a drainage with stream sediments yielding anomalous, Casino suite zircons and gold grains.

### Catch project

ATAC Resources Ltd. received target evaluation funding for their newly optioned (January 2022) Catch project located in south-central Yukon, 56 km southeast of Carmacks. The property lies within an underexplored region in the Stikine terrane that is prospective for Cu-Au ± Mo porphyry deposits. The 2022 program builds upon prior successful YMEP-supported target evaluation fieldwork in 2020–2021 completed by prospector Ryan Burke who identified Cu-Au porphyry-style alteration and mineralization that returned significant assay results on the property.



**Figure 3. (a)** Jack Milton collecting stream sediment sample and **(b)** U-Pb age dates from detrital zircon grains.

The 2022 YMEP-supported exploration program completed by ATAC consisted of prospecting, soil sampling and geophysical surveys (Induced Polarization (IP), ground magnetics and VLF-EM). Highlights of this program include the extension of the main Cu-in-soil anomaly to 5 km × 500 m, and widespread copper mineralization observed in trench and grab samples returning values of 7.45 g/t Au with 1.57% Cu (Fig. 4), 1.05 g/t Au with 1.60% Cu and 1.03 g/t Au with 1.01% Cu. In addition, multiple new target areas were discovered on the property, and IP surveys identified a 1000 × 600 × 400 m chargeability and resistivity high coincident with high-grade surface samples.

Promising results from the field program prompted ATAC to initiate a maiden RC drill program consisting of 6 holes, totalling 474 m. Results from this phase of the program are pending.



**Figure 4.** Grab sample from Catch Property containing 7.45 g/t Au and 1.57% Cu.

### ***Pike-Warden property***

Transition Metals Corp. received target evaluation funding for their newly optioned (June 2022) Pike-Warden property located in southern Yukon, 70 km south-southwest of Whitehorse. The property is approximately 10 km south of Whitehorse Gold's Skukum Gold project, which includes past-producing Mt. Skukum gold mine and advanced stage projects Skukum Creek and Goddell Gully. The property lies within the Intermontane belt along the northern margin of the Bennett Lake volcanic complex in an area that is prospective for structurally controlled, epithermal gold and polymetallic vein-hosted mineralization. The 2022 program builds on previous YMEP-funded programs (2019–20, 2020–21 and 2021–22) that consisted of geologic mapping, rock and till sampling, ground and airborne geophysical surveys and drone imagery, and resulted in the discovery of a number of mineralized showings.

The 2022 program involved prospecting, mapping, hand trenching and reverse-circulation (RC) drilling (3 holes, totalling 204 m). Results from the 2022 program are pending.

### ***Nitra project***

In 2019, Banyan Gold Corp. staked the Nitra property 5 km west of their AurMac property, within the Mayo mining district. Nitra is an early-stage intrusion-related gold target that exhibits similar potential to that seen at AurMac. In 2020–21, Banyan received a target evaluation grant that allowed them to infill and expand ridge and spur soil sampling programs. In 2021–22, they received another target evaluation grant that allowed them to collect more than 6000 soil samples. At each step along the exploration path, the company was able to further define and expand on soil geochemical anomalies that returned encouraging gold and pathfinder results. These results prompted another YMEP-supported target evaluation program in 2022 comprising an additional 5500 soil samples, lidar and airborne geophysical surveying. Results of their 2022 exploration program are pending.

## Placer spotlight

### Duncan Creek

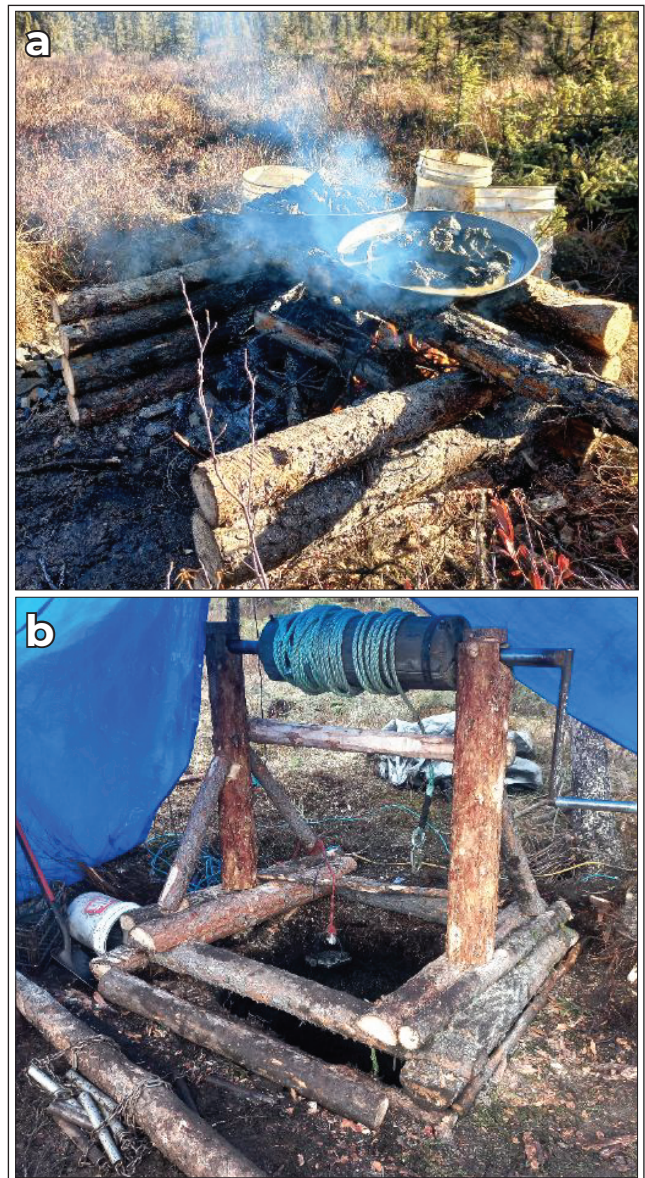
Duncan Creek Goldbusters Ltd. received YMEP funding for their placer operation on Lightning and Duncan creeks located south of Keno. Their initial program consisted of geophysical (resistivity) surveys in order to identify the overall depth to bedrock and the presence of distinct channels within the bedrock profiles (Fig. 5a). Based on results of the survey, the company conducted a bulk-sampling program (Fig. 5b) testing surface gravels and they reported finding 0.007–0.017 oz of gold per cubic yard contained within gravels located 0 to 12 ft below the surface. The company subsequently signed an option to lease agreement with a third party.



**Figure 5.** (a) IP survey and (b) bulk sampling on Lightning Creek.

### California Creek

Metallic Minerals Corp. received YMEP funding for their placer operation on California Creek. An 11-day program comprising property-wide lidar data and digital orthophoto collection, shafting 19 feet to bedrock, hand trenching, staking bench leases, as well as trail upgrading and maintenance was completed (Fig. 6). Panning of material collected from shafting returned gold at the gravel-bedrock interface.



**Figure 6.** (a) Thawing frozen muck and (b) shafting on California Creek.

## Summary

The YMEP program continues to be well received by the Yukon exploration sector and has demonstrated significant benefits to the local economy over the years. The 2022–23 program funded 42 programs and the \$1.4M government investment is expected to leverage an additional \$3.0M in clients funds for a

total contribution of \$4.4M to the Yukon economy. In addition to this immediate-term benefit, a number of projects yielded new discoveries that are likely to spur additional claim staking and exploration, and generate economic benefits well into the future.

**Appendix 1. YMEP projects that received funding in 2022–23.**

YMEP #	Project Name	Applicant	Module
<b>Hard rock projects</b>			
22-007	Nitra	Banyan Gold Corp.	Target Evaluation
22-010	Mil	Burke, Ryan	Focused Regional
22-013	Kryptos	Richards, Gordon	Target Evaluation
22-014	CDL	Mann, William (Bill)	Focused Regional
22-018	Wels Project	K2 Gold Corp.	Target Evaluation
22-021	Treble	Trifecta Gold Ltd.	Target Evaluation
22-022	Goldorak	Hulstein, Roger	Focused Regional
22-023	Pike-Warden	Transition Metals Corp.	Target Evaluation
22-024	Stevenson Ridge	Arsenault, Chris	Grassroots
22-025	Koi	Strategic Metals Ltd.	Target Evaluation
22-026	Allover	Burke, Mike	Grassroots
22-027	Catch	ATAC Resources Ltd.	Target Evaluation
22-028	Golden Culvert/Little Hyland/Rubus	Stratabound Minerals Corp.	Target Evaluation
22-029	Sands of Time	Milton, Jack	Focused Regional
22-031	Tosh	Senoa Gold Corp.	Target Evaluation
22-032	Rainbow	Senoa Gold Corp.	Target Evaluation
22-033	Cliff	Senoa Gold Corp.	Target Evaluation
22-034	Groundhog	Honey Badger Silver Inc.	Target Evaluation
22-037	Misty	Coates, James	Target Evaluation
22-038	Gold Strike	1079170 BC Ltd.	Target Evaluation
22-039	FLR claims	Florin Resources Inc.	Target Evaluation
22-042	Bandito	Endurance Gold Corporation	Target Evaluation
22-044	Catalyst	Stillwater Critical Minerals Corp.	Focused Regional
22-055	Ogi	Sitka Gold Corp.	Target Evaluation
22-062	Livingstone Creek	Golden Ram Inc.	Focused Regional

**Appendix 1 continued. YMEP projects that received funding in 2022–23.**

YMEP #	Project Name	Applicant	Module
<b>Placer Projects</b>			
22-003	Veronica and Eagle Benches	Gimlex Enterprises Ltd.	Placer
22-006	Henderson Creek	Fellhawk Enterprises Ltd.	Placer
22-011	Nansen	Hood, William C.	Placer
22-012	Sulphur Creek	Klippert, Dan	Placer
22-015	TMG	Brown, Derek	Placer
22-016	Fire	Bailie, Montana	Placer
22-020	Otto Creek	Star Mountain Resources Ltd.	Placer
22-035	Shanghai Creek	Sans Peur Exploration Services Inc.	Placer
22-041	Duncan Creek	FTG Exploration Ltd.	Placer
22-043	Dominion Ck Dredge tailings	NBC Contracting	Placer
22-048	Sulphur Ck Placer	Yukon Alpine Heliski Ltd.	Placer
22-051	Twenty Mile	GroundTruth Exploration Inc.	Placer
22-052	Lightning-Duncan Creek	Duncan Creek Goldbusters Ltd.	Placer
22-057	Haggart Creek	Taylor, Frank	Placer
22-058	Henderson creek area	Ryan, Shawn	Placer
22-059	Corkery Mayo River Placer	Wildwood Exploration Inc.	Placer
22-061	California Creek Placer	Metallic Minerals Corp.	Placer