

YMEP 18-035, summer 2018:
“Target evaluation campaign at Huot Gulch”
on “Red” Property

(Map 115N16).



The “Red” Property. Scale 1:80,000

By Sandro Frizzi, geologist and prospector

Introduction:

During the month of September of 2018, we explored and tested for placer gold the lower section of Huot Gulch.

Huot is a right tributary of Boucher Creek (visible on map 115N16), which flows into Sixtymile River.

This gulch has an interesting history of exploration: staked and named at first in 1902 by W.M. Richardson, I.A. Jackson and James Huot (son of Napoleon Huot, one of the first prospectors of the Stewart River in 1860), after a significant placer gold discovery was done by the trio around its lower end.

Then it was abandoned for the richer goldfields of Bonanza, Eldorado, Hunker, Dominion, Quartz and Sulphur Creek.

Few years later James Huot returned to this creek to mine it.

After 1910 the area was forgotten until the end of the '60s, when this region became popular again, this time among the hard-rock exploration companies (Connaught Mines first, in 1969) thanks to the discovery of lead-silver veins along the Fifty Miles Plateau, connected with the presence of a big intrusive body of granodiorite-diorite.

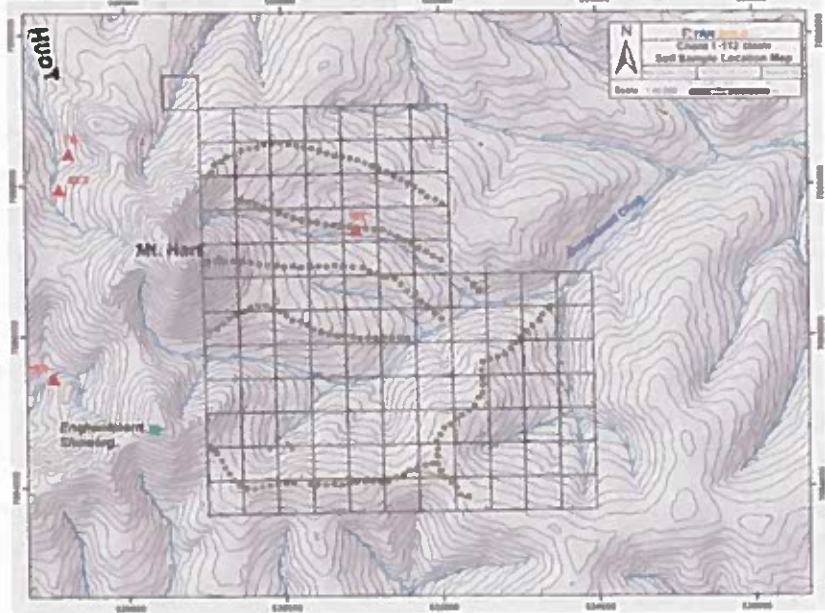
Since then, several enterprises explored this plateau searching for silver, lead, copper, molybdenum. Less or none interest was dedicated to placer gold exploration due to the low price of the precious metal before the rising of 2006.



In 2010, I participate as field-geologist to a soil sampling campaign conducted by geologist William D. Mann for Klondike Silver Corp and aimed to test the surrounding of Mount Hart for mineral depositions.

The results of that work revealed the presence of gold anomalies located around the watershed of Huot Gulch (see the figure on the left, Mann 2011).

In 2012, Ryan Gold Corp published the result of a sampling campaign conducted by senior geologist Hua Jin in 2011. The results are matching the ones achieved by Klondike Silver: gold anomalies are located in the area surrounding the watershed of Huot Gulch (see map on the right).



At this time I was already switching my attention to the placer industry of the Klondike and I immediately started an historical research regarding Huot Gulch. That research confirmed the presence of old placer mining activities in the area and in 2013-14, my first prospect along that watercourse confirmed those historical reports with the discovery of several traces of hand-mining activities (shafts and cabins).

In 2017 my group (Yukon Exploration Green Gold Inc.) staked 2 co-discovery claims (Red 1-2) and 3 miles of prospecting lease (ID01621) and in 2018 we finally planned an extensive testing campaign along the lower portion of Huot Gulch, with a crew of workers and use of heavy equipment. The results of this work is published in the next pages of this report.

Sandro Frizzi

remains of old cabin and shaft at UTM:

525414-7094083



Location of Huot Gulch

Huot Gulch is visible on **Map 115N16**. It's part of the Sixtymile district and tributary of Boucher Creek, which flows into Sixtymile River. This gulch measures 6 km of length and is located in the western part of the Yukon, between Dawson City (51 km straight east from the creek) and the Alaska borders (26 km straight west).

It runs from south toward north and its headwater starts from the north-facing slope of Mountain Hart, the highest peak in the area.

Huot Gulch is accessible by different roads and trails. The shortest one from Dawson City goes through the Top of the World Highway until the junction with lower California Creek (left turn at km 80), then through an unpaved road until the crossing of Sixtymile River (14 km away) and continues up to km 9th of the new road to Enchantment Creek. Thence turn right (north direction) on the new trail along the ridge of Granite Creek, until reaches Boucher Creek, 5 km later. From there, the trail turn toward west, upstream Boucher Creek for 4.5 km, to reach the mouth of Huot Gulch.

The road is driveable with 4x4 vehicle until Granite Creek, but for the final 4 km it's necessary the use of tracked vehicles or Argo 8x8.

The total driving distance between Huot Gulch and Dawson City measures less than 120 km, but due to rough trail's condition it will take around 5 hours to arrive. For the next year we planned to build a better/drivable road straight to our new "Red" Property.



Equipment used during this exploration campaign

Here is the short list of equipment employed at Huot Gulch:



- Excavator on tracks Komatsu PC 138. This is a 14 tons piece of equipment with a strong engine and the possibility to dig up to 5.5m of depth. We used 1/2 yard digging bucket. The Yukon law doesn't allow to use excavators bigger than 20 tons for exploration on properties with just Class 1 permit.

- Two georadars (GPR): **Dipole 300**, equipped with 3 different antennas: 100, 300, 500 MHz (best depth with 100 MHz). In the typical Klondike's environment (frozen muck, coarse gravel mixed with sand and silt, weathered bedrock of clay) it can reach depths of 6-10 meters, but it has poor resolution on first 0.5 - 1.5 meters. It's good for detecting bedrock.

- Scudo 500**: equipped with a fixed internal antenna of 300 MHz, it's more compact and much easier to drag through the bush. It has better resolution close to the surface, but less penetration (4-8 meters in the same type of ground).



- Two 4x4 trucks (GMS Sierra 3500 and Ford 350) with trailers for the transportation of gears, ATV, fuel barrels and food.
- One ATV Argo 8x8 750 HDi.
- A small/portable highbanker "Gold Cube" equipped with electric pump, and a "Rotapan" to quickly process small quantities of gravel on-site.
- Semi-truck 6x6 (American Army truck) with low-bed trailer to transport equipment along off-road trails.

Targeted area



the explored area is outlined in red. Scale 1:4,000

For this first exploration campaign of 2018 we concentrated our field work around an area of an approximate length of 900 meters (see picture above), located along the very lower portion of the gulch, right before it flows into the Boucher's floodplain.

This area has been selected for its promising geomorphological features, suitable for a good placer deposition, after an attempt examination of satellite pictures followed by direct field observations.

The first step of our work has been the geophysical survey, performed with two different georadars and aimed to trace depths and profiles of the bedrock across the valley in four different locations (see page 7).

Then we dug 10 pits of different size, to extract enough gravel to test for placer gold.

Location of test-pits and GPR geophysical surveyed lines



Scale 1: 5,000

GPR lines are traced in orange and marked by letters (a, b, c, e d).

Pits are numbered (from 1 to 10).

UTM (zone 7, NAD 83)

GPR line a = start: 525336-7094396, end: 525436-7094452

GPR line b = start: 525475-7094056, end: 525424-7094052

GPR line c = start: 525501-7093931, end: 525444-7093926

GPR line d = start: 525517-7093912, end: 525470-7093749

Pit 1 = 525395-7094193

Pit2 = 525486-7093897

Pit3 = 20 meters north from Pit2

Pit4 = 525497-7093802

Pit5 = 525486-7093774

Pit6 = 525506-7093734

Pit7 = 525453-7094033

Pit8 = 525402-7094320

Pit9 = few meters south from Pit8

Pit10 = 525454-7094020

GPR representation of bedrock profiles

The bedrock profiles pictured in the next pages have been obtained by meticulously surveying each line for few times with two different type of georadars: Dipole 300 and Scudo 500. From each device we kept only the clearest graphic interpretation of data produced by the software (ReflexD2Quick) and we overlapped them for confrontation. Then we traced these profiles by using the most common Window Paint program.

The digging campaign which followed this geophysical survey confirmed once again the decent reliability of these modern devices: the bedrock in most of the cases has been found within one meter of range from what indicated by our GPRs.

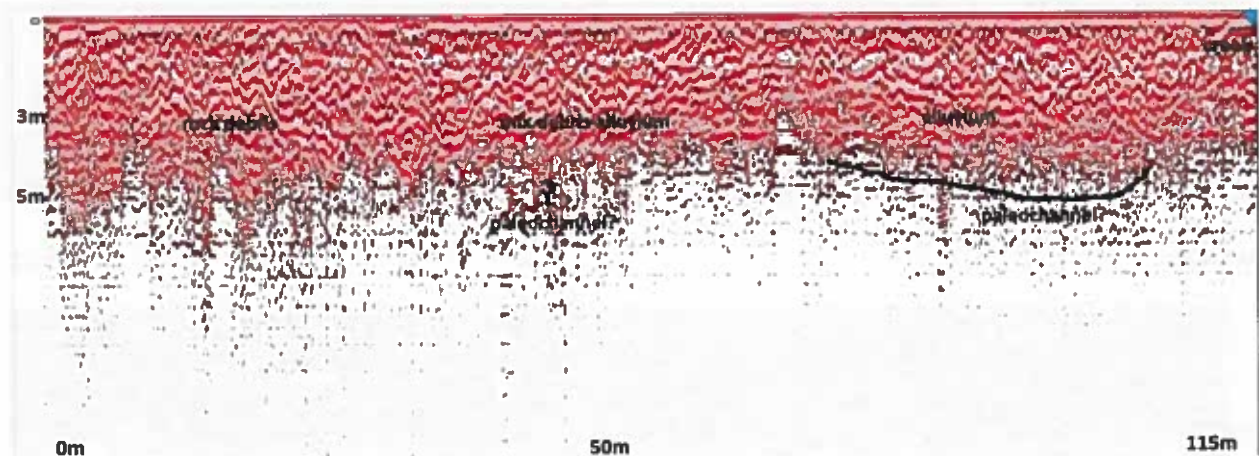
Although with some limitation, the georadar is very handy where a fast/inexpensive survey is needed, especially in remote areas. It saved us quite a bit of time and money!

Line a:



west

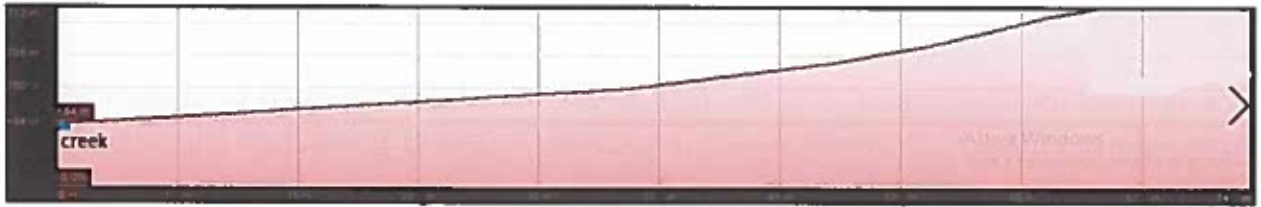
east



Note:

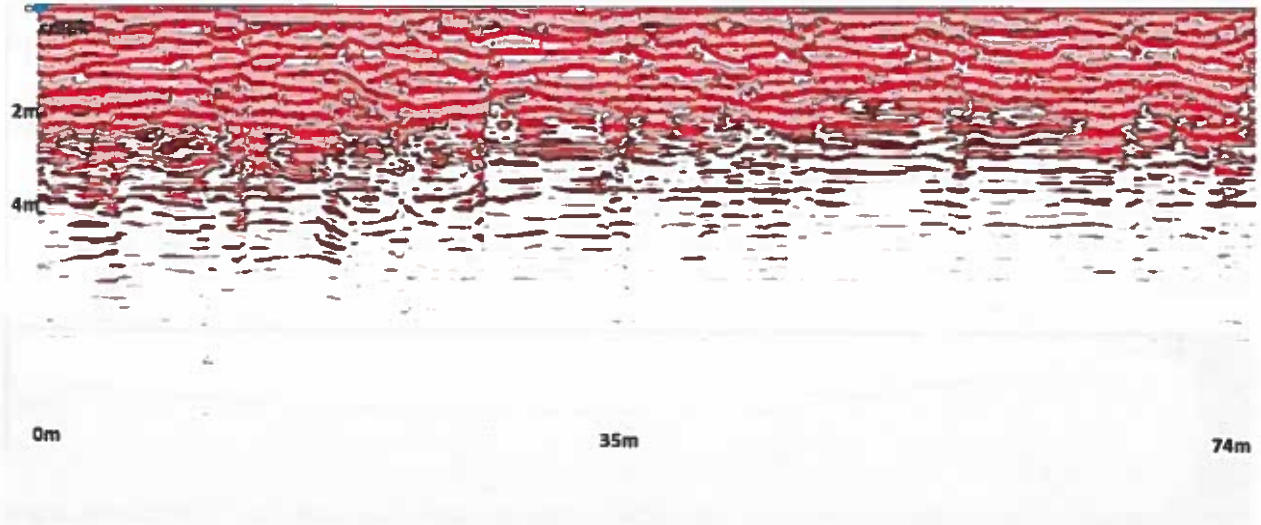
This is a long line and is cutting across the wider section of Huot valley by its lower end, few hundred meters away from the confluence with Boucher Creek. The radar shows the possible existence of two paleochannels (the one to the right it's more defined) buried across the valley. We will test them during the next mining season (2019).

Line b:



west

east

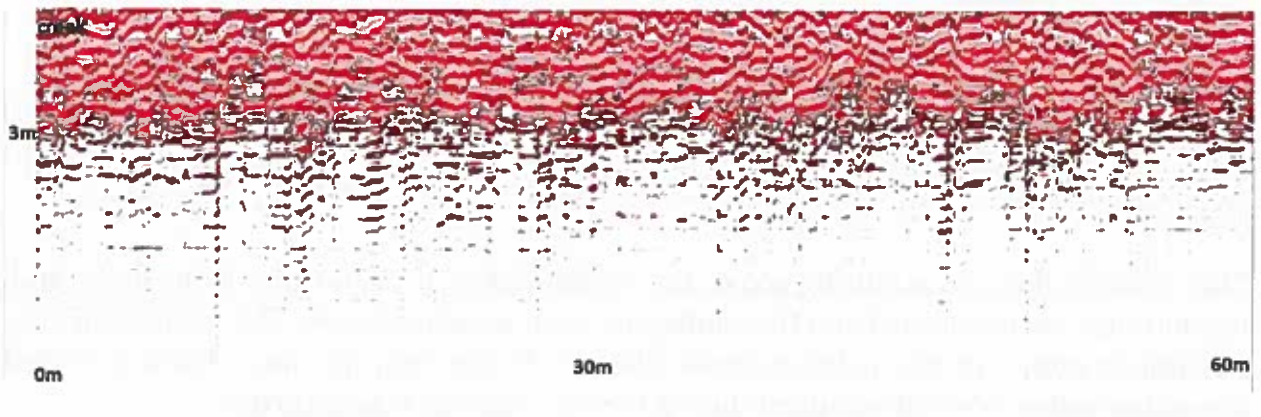


Line c:



west

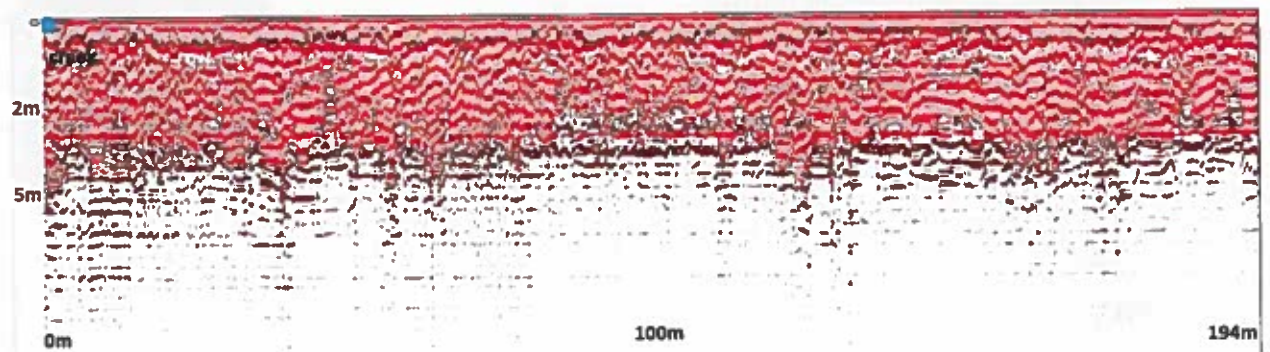
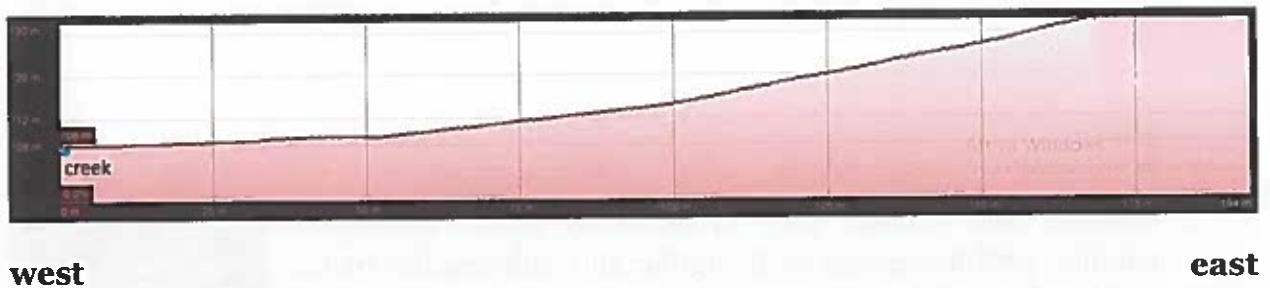
east



Note:

These two cross-section are showing a conventional alluvial mattress, thicker in the middle of the valley and gently decreasing toward the valley-side (lenticular shape). The maximum bedrock depth (confirmed by our following digging campaign) varies from < 4 meters on line b to < 3 meters on line c. Line c shows the possibility of a paleochannel located 40 meters away from the creek.

Line d:



Note:

This line is running in a NE-SW direction and its mostly parallel to the creek, which runs few meters away. It shows frozen condition starting from the top (lately confirmed by our digging), and a bedrock depth of 3 meters (deeper toward south-west where the creek is cut crossing the valley).

Description of test-pits

Pit1:

6m x 6m x 2.5m (depth). Permafrost all the way down.

Thin layer of organic soil (0.5m), frozen black muck (0.5 – 2m), boulders-cobbles-gravel-sand-silt (2m - ?). This first pit has been wrongly dug beside the creek, in an area where its bed is deeply cutting into a thick layer of frozen muck. Our excavator went through the muck within few hours to finally reach frozen gravel, then it stopped digging for the extreme hardness of the ground.

Pit 2:

5m x 5m x 2.7m (depth). Frozen from starts to bottom.

Organic soil (50cm), then immediately gravel (boulders, cobbles, pebbles) mixed with angular and sub-angular rocks, sand and silt, right to the bottom.

The bedrock is made by a felsic intrusion and is deeply weathered for the first 2-3 feet.

From this pit, right above the bedrock, we recovered nice/coarse flakes of gold by panning on site.



Pit3:

5m x 4m x 3m (depth). Just few meters (20) north from pit2.

More angular rocks on this hole (close to a slide), otherwise similar conditions.

From a smaller area of exposed bedrock we recovered few small flakes of gold by panning.

Pit4:

7m x 6m x 3.5m (depth). Permafrost all the way down.

Organic soil (60cm), frozen mucks from -60cm to -2.5m, then predominantly sand mixed with medium-size gravel (frozen) all the way down.

This pit has been placed in the wrong spot, where the ancient creek-course was meandering. Only fine/light material has been deposited here, not gold to be found.

Pit5:

7m x 5m x 2.8m (depth). Frozen.

Overburden (30cm), then immediately gravel-cobbles-pebbles- some boulders-subangular rocks mixed with coarse sand. The bedrock is made by a weathered granodioritic intrusion.

Nice flakes of gold (up to 0.5 centimeters) have been recovered here by panning few buckets of gravel an weathered bedrock. These flakes, as the ones recovered from pits 2 and 3, are heavy and at the same time flattened enough to witness an occurred transportation.

**Pit6:**

10m x 8m x 2m (depth). Permafrost.

Under the thin layer of overburden (<50cm) starts an upper bench-type of deposition made of angular and sub-angular rocks mixed with sand and a small fraction of roundish pebbles and cobbles, right to the bedrock, which lies at -2m. Only two small flakes gold have been recovered from panning what it revealed to be a very marginal 'paystreak'.

Pit7:

5m x 4m x 2.5m (depth). Deeply frozen all the way down.

Overburden (60cm), then frozen black muck for the next two and half meters of digging. Bedrock not reached and consequently no gold recovered. Few days later we unsuccessfully tried to dig pit 10 in the same neighbour; we didn't make it.

Pit8 and pit9:

7m x 6m x 3m (depth) and 5mx4mx2.5m.

Deeply frozen.

These pits are located just few meters away from each other and neither of those managed to arrive to the bedrock due to the heavy frozen condition of the ground. The bedrock hasn't been reached and accordingly no gold has been recovered.



Bedrock geology



DMF1 = Yukon-Tanana Terrane, Devonian-Carboniferous (365-345) – metamorphic (mafic): cl-schist, amphibolite, quartzite, gneiss, ultramafic . DMF5 = white marble.

MgSR = Yukon-Tanana Terrane, Carboniferous (355-345) –metamorphic: orthogneiss.

IKIR = Cretaceous (112-99) – sedimentary: conglomerate.

uKC1 = Cretaceous (73-68) – volcanic (mafic): trachyte, andesite, basalt.

LKqP = Cretaceous (72-68) – plutonic: granodiorite, diorite, quartz-diorite.



gneiss (?) found at the bottom of pit5



weathered bedrock at the bottom of pit2



quartzite.

Note: the bedrock geology of lower Huot valley appears to be more felsic than the upper part (Mount Hart), which is mafic and ultramafic. The first picture has a question mark because that section of what is supposed to be a gneiss shows a very mild orientation and it could easily be taken for granodiorite. The gravel composing the conglomerate of regional unit IKIR, which is surrounding the peak of Mount Hart, is larger in size than the one found along the Top of the World Highway in the same unit.

Surficial geology

This picture on the right has been taken at pit5 and is a good representation of the different rocks which are composing the alluvial mattress of this lower section of Huot Gulch. In the bunch are easily recognizable schist, quartzite, diorite, gneiss, different greenstones, trachyte, etc. etc. Those rocks are for the most part sub-angular of partially rounded, due to the short travelling from their areas of origin. In one world they are allochthonous rocks (= local).



Our field observations are completely turned over if we look through the microscope (see picture below, at 225x): here a careful analysis of the black sand revealed a big variety of minerals (garnets, magnetite and galena predominant) which should be part of a river-type of deposit rather than of a modest gulch one. So: where are all these heavy minerals coming from!?

Could they possibly be related with the presence of that ancient conglomerate (regional unit IKIR) present around the headwaters of this creek?

During the past July and August, after our exploration campaign at Five Mile Creek (see our report "Target evaluation campaign at Five Mile Creek") we encountered a very



black sand at Huot Gulch (225x)



black sand at Five Mile Creek (225x)

identical situation, in spite of the fact that this creek is located 15 kilometers away, toward north and on the other limit of Sixtymile River.

Here the rocks composing the alluvium are also for the big majority locals (autochthonous), while on the contrary the black sand revealed a big variety of minerals which seems to belong to different remote areas (allochthonous).

Exactly the same situation than we are recording here at Huot Gulch!

What do they have these two creeks in common from the depositional point of view?

From the careful examination of these two geological, morphological and structural environments, it's easily noticeable that the most common depositional feature between Five Mile Creek and Huot Gulch is the presence, on the upper section of both watercourses, of an extensive sedimentary package of ancient conglomerate of fluvial origin (regional unit IKIR).

This Cretaceous alluvial deposition could be the responsible for the presence of this fluvial-type of black sand. Fine and ultrafine, flattened specimens of gold have been also recovered from the loose gravel deriving from the weathered portion of this conglomerate, in different locations (along the Top of the World Highway, around the top of Mountain Hart, on the upper part of California Creek, etc.). This fine gold and the black sand related with it are always showing signs of a long transportation, to witness them belonging to extensive fluvial system (which are no longer existing).



IKIR conglomerate and weathered loose gravel

Gold

Let's start by saying that at Huot Gulch we recovered nice, medium-coarse specimens of gold from each one of the dug pits where we managed to reach the bedrock.

Pit5 was the most successful, probably because located in an area proximal to the center of the floodplain, where the gold deposition was expected to be consistent. Pit2 also returned good results, followed by pit3 and then pit6.

Along the targeted area, which is located on the lower part of the creek, the gold is in part chunky and not too flattened, mixed with a fraction of fine and ultrafine, hammered specs (long transportation).

Due to the fact that we were running late in the season (second half of September) and both water and ground were starting to freeze, we couldn't perform the programmed extensive bulk-sampling campaign, and instead we had to process small quantities of selected gravel and bedrock, mostly by hand. We used a Gold Cube and a RotaPan, two excellent devices, able to process a 20 liters bucket of material in no more than ten minutes.

From a modest portions of bedrock (\leq of 5 square meters from 4 pits) we managed to recover more than 3 grams of gold!

This good result convinced us to apply for water license and land use permits (Class 4 licence) during this coming winter, in order to allow us perform a more extended bulk sampling campaign for the next summer (2019).



first gold from pit2



gold from pit5 (each square measures 1x1mm)

Conclusions

This target evaluation campaign of 2018 at Huot Gulch was performed during 12 days of fieldwork (without including the days of preliminary exploration, the ones spent in data research and all the hours past in front of maps, satellite images and microscope).

The testing was conducted by geologist Sandro Frizzi, with the help of engineer Joerg Lotz and field-worker Andres Rojas, plus the voluntary help of many friends.

An area of 900m x 200m was selected from the lower part of Huot Gulch close to its confluence with Boucher Creek. Along this targeted area four different bedrock profiles have been surveyed with geophysical devices (georadars) and successively tested for placer gold with the help of an excavator on tracks. Ten medium-size pits have been dug in the deeply frozen floodplain and only four of those successfully reached the bedrock. The gravel extracted right above the bedrock has been tested on site using a portable highbanker (Gold Cube) and a special quick-panning device (RotaPan).

This testing campaign produced positive results, with more than 3 grams of gold recovered from a total of 5 square meters of tested bedrock. The most encouraging part is that we found gold in every pit where we managed to reach the bedrock, and the specimens of gold are for a good part chunky.

During the next winter our company will apply for a full water licence and land use permits (Class 4), in order to be able to perform an extended bulk-sampling campaign for the next mining season of 2019.

Sandro Frizzi, Vancouver 28 November 2019



Mount Hart: the headwater of Huot Gulch

List of expenses

YMEP Expense Claim Form - Client Copy



YMEP no:	18-035	project name:	HUOT GULCH		applicant name:	SANDRO FRIZZI
expense claim no:	1	program type:	placer		program module:	target evaluation
date submitted:	15-Oct-18	phone:	(804) 500 4109		email:	sandrofrizzi@hotmail.com
address: P.O.BOX 1178, DAWSON CITY, YUKON, Y0B 1G0						
start/end dates of fieldwork for this claim:		4-Sep-18	17-Sep-18	no. of field days/this claim: 12		
eligible expenses <i>Please refer to rate guidelines. Provide photocopy of receipts.</i>						
item		unit/days	rate	total		
daily field expenses	no persons: 3	12	\$100/day	\$3,600.00		
personnel	<i>Name (supply statement of qualifications)</i>					
	SANDRO FRIZZI (GEOLOGIST)	16	\$ 400/day	\$6,400.00		
	JOERG LOTZ (OPERATOR)	12	\$ 275/day	\$3,300.00		
	ANDRES ROJAS (HELPER)	12	\$ 275/day	\$3,300.00		
equipment (rental)	private or commercial	unit/days	rate	total		
EXCAVATOR KOMATSU PC138us	private	10	500	\$5,000.00		
SEMI-TRUCK AND TRAILER	private	4	500	\$2,000.00		
PICK-UP 1 TON TRUCK DODGE	private	12	50	\$600.00		
ATV ARGO 750 HDI	private	12	30	\$360.00		
ATV QUAD HONDA FOURRUNNER	private	12	30	\$360.00		
UTILITY TRAILER FOR TRUCK	private	12	12	\$192.00		
UTILITY TRAILER FOR ATV	private	10	10	\$100.00		
2 INCH WATER PUMP	private	10	10	\$100.00		
3000 W GENERATOR	private	12	17	\$204.00		
	private					
	private					
other <i>Please provide details.</i>						
GROUND PENETRATING RADAR	PRIVATE	4	500	\$2,000.00		
Total this claim:				\$27,516.00		