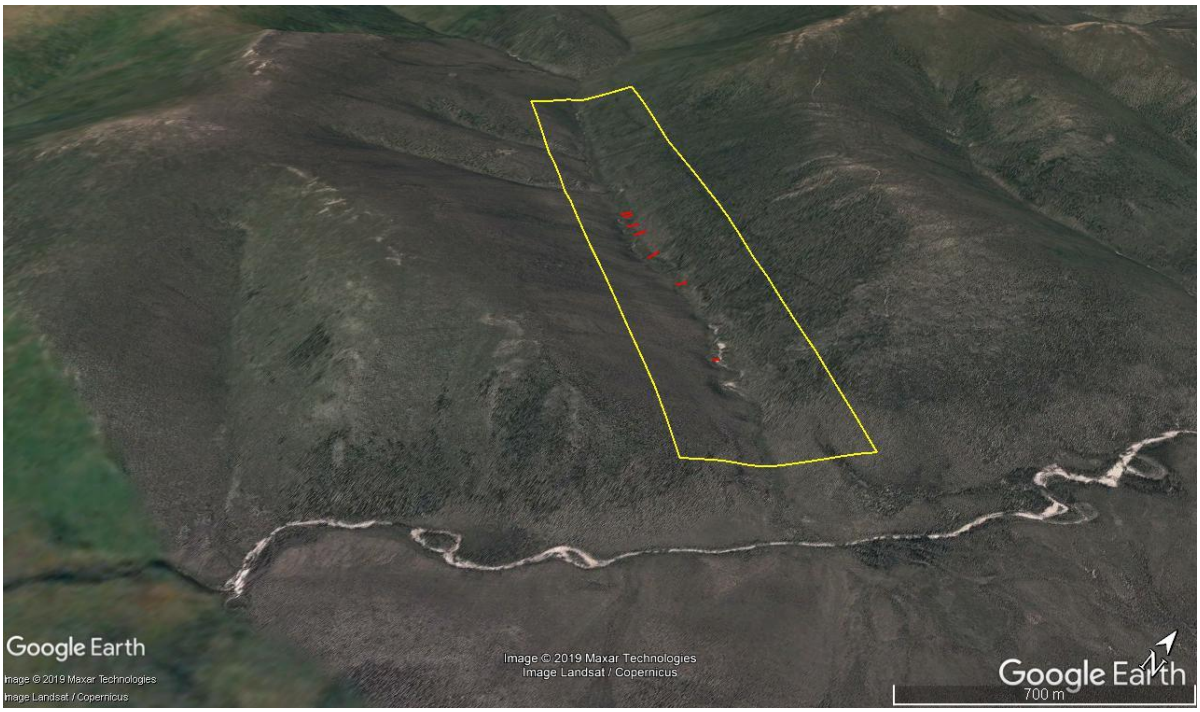
Dawson City,26 August 2019

- Geological/Geophysical survey with a Ground Penetrating Radar**-**

on

“Atum” Property (Pat Murphy Creek)

Map 115N15



Satellite view of Atum Property, on Pat Murphy Creek and GPR lines (in red)

by Sandro Frizzi, geologist and prospector

INTRODUCTION.

During August of 2017 geologist Sandro Frizzi with the help of Matthias Brunmayr and Rocco Frizzi, performed a geophysical survey along Pat Murphy Creek, a left limit tributary of Sixty Mile River close to the Alaskan borders.
This creek hosts “Atum” Property, a placer gold concession composed by two co-discovery claims (Atum 1 and 2) and two miles of prospecting lease (ID 01613).
Yukon Exploration Green Gold Inc. owns it for 100%.
This property hasn’t been prospected since the early ‘80s , when a small Albertan mining enterprise performed a testing campaign along the lower part of the creek.
In 2016 our company prospected that creek again and recorded suitable geological features for a potential placer gold deposition (this area is also located on the southern part of that massive mountain range which feeds with gold some of the richest goldfields in the Klondike: Bedrock Creek, Miller Creek and Little-gold Creek toward east, Moose Creek toward North, Davis Creek, Poker Creek and Walker Fork Creek toward west).
That same year we decided to stake Pat Murphy and to apply for water license and Class 4 permits in order to be allowed to perform an exhaustive bulk-sampling campaign along the all valley (Class 1 contains too many limitations which are reducing the possibilities of serious testing!).
In 2018 we carried out a dig-and-sluice campaign by using an excavator and a portable washplant. Unfortunately, to cool-down the enthusiasm gained during the early prospects, our first testing attempts returned extremely poor results: from three (over five) dug pits not a single flakes of gold was found in the box!
Definitely the worst result ever achieved by us here in the Klondike, where each one of those watercourses are returning at least few little gold specimens.
During the same winter we analyzed the data collected from that unlucky testing campaign and we noticed those signs of drastic glacial activities that we underestimated at the time of our early prospects, probably for an excess of excitement:

1) The morphological features of the lower part of Pat Murphy Valley are definitely showing serious scarves of glacial activities, with the obvious consequences for the original alluvium.

2) We never exposed a real/solid bedrock and that sand found below the alluvium (see picture below) has been wrongly mistaken for the product of a weathered intrusion. Under the microscope that sand revealed possibly glacial-related origins and it’s probably part of a thick layer of till which is covering the bedrock and maybe some remains of the original alluvium. If these late observations are right, the real bedrock should be lying deeper that what we were expecting (like at Miller Creek).

Glacial sand from the bottom of a test-pit in the lower part of creek.

In spite of these deductions it still remains the fact that there was no gold in our sluice after we tested that portion of modern gravel which lies above the glacial sands: why??

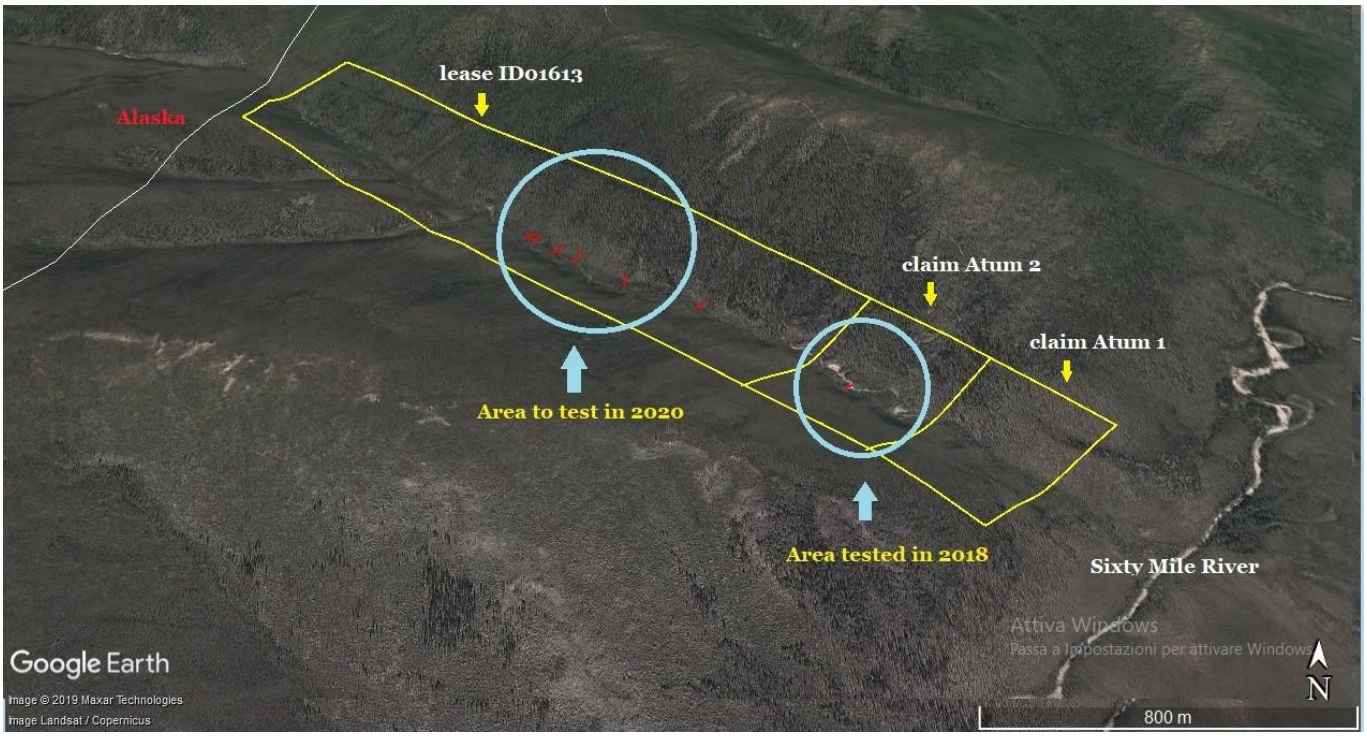
At this time we don't have an answer for this question, but before to officially declare that this creek carries no gold, we are determined to give it another chance and to find out if there is a paleo-alluvium buried under that sand.

In order to make sure that our exploration at Pat Murphy Creek well be complete, and that we didn't miss our target (the gold) and we wrongly disproved this creek, we decided to add two more prospecting campaigns to our research:

a) A geophysical survey (just performed during last August and described in this report), done with the use of a ground penetrating radar with the intention to collect more information about the depth of the original valley.

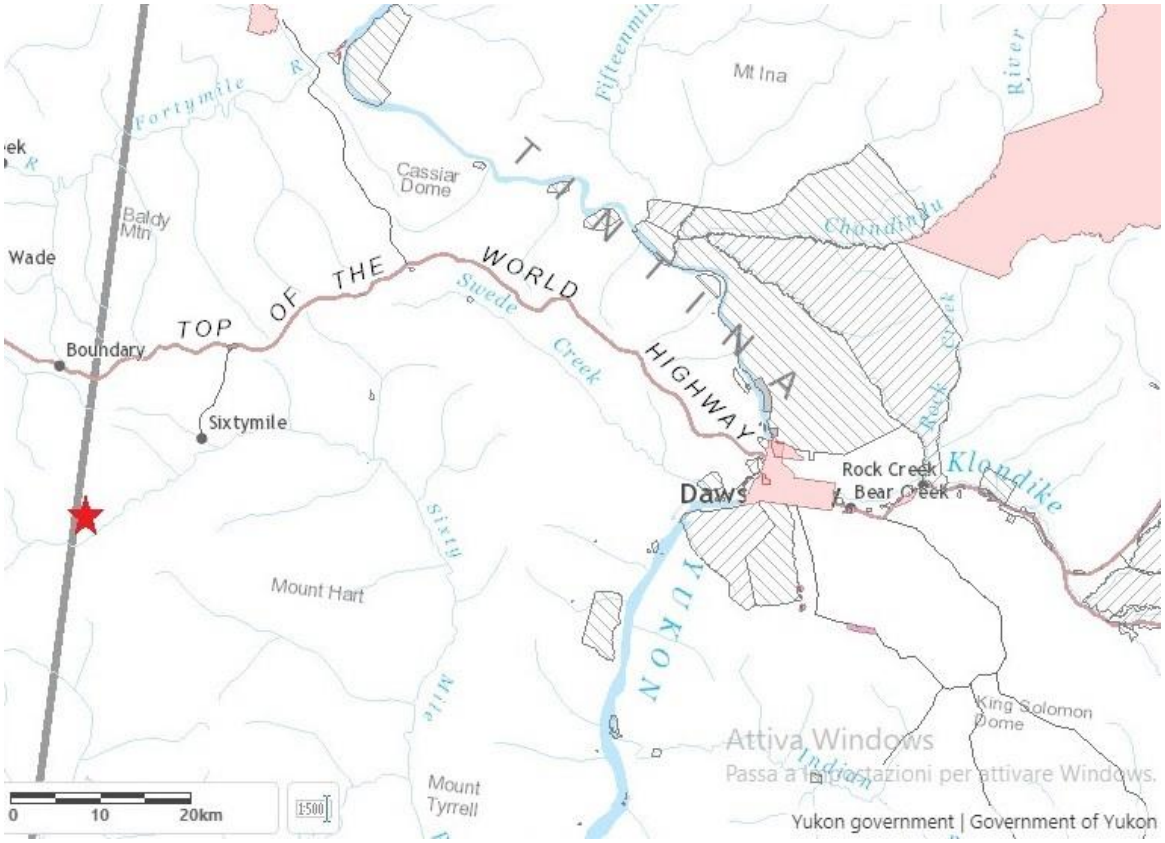
b) A drilling campaign (which could possibly be replaced by a deep-digging campaign performed with a big excavator with extended boom) to be performed during the summer of 2020.

In the following page there is a satellite view of the creek with the location of the area tested in 2018, the lines (in red) surveyed with the GPR during this last August of 2019, and the area that we intent to target during the next exploration season of 2020.


lease ID01613
Alaska
claim Atum 2
claim Atum 1
Area to test in 2020
Area tested in 2018
Sixty Mile River
Google Earth
Image © 2019 Maxar Technologies
Image Landsat / Copernicus
Attiva Windows
Passa a Impostazioni per attivare Windows.
N
800 m

LOCATION OF PAT MURPHY CREEK.

Pat Murphy is a left tributary of Sixty Mile River, visible on map 115N15. It runs almost parallel to the border with Alaska, where its headwaters are located.
Reaching the creek requires a long journey: from Dawson City to drive along the Top of the World Highway until km 87, then turn left on Sixty Mile Road and keep going for 20 km, down the mountain ridge and then along the wide Sixty Mile Valley, until the mouth of Bedrock Creek. The road ends right there and the rest of the trip requires a tracked vehicle to reach the mouth of Pat Murphy Creek, which is located 5.5 km straight west, after swinging through several swampy areas.
An alternative/old road still exists along the northern mountain ridges, and starts from the upper part of Bedrock Creek. Unfortunately that road has been neglected for decades and today is deeply reforested and only an expensive restoration will make it useful again. We are planning reclaim this road in the eventuality of good gold discoveries.
Pat Murphy Creek is obviously accessible by helicopter: an emergency helipad is located at UTM 502182-7089874.
A bunch of game trails are crossing the entire valley, making it drivable with an Argo 8x8 (an ordinary quad won't be sufficient).



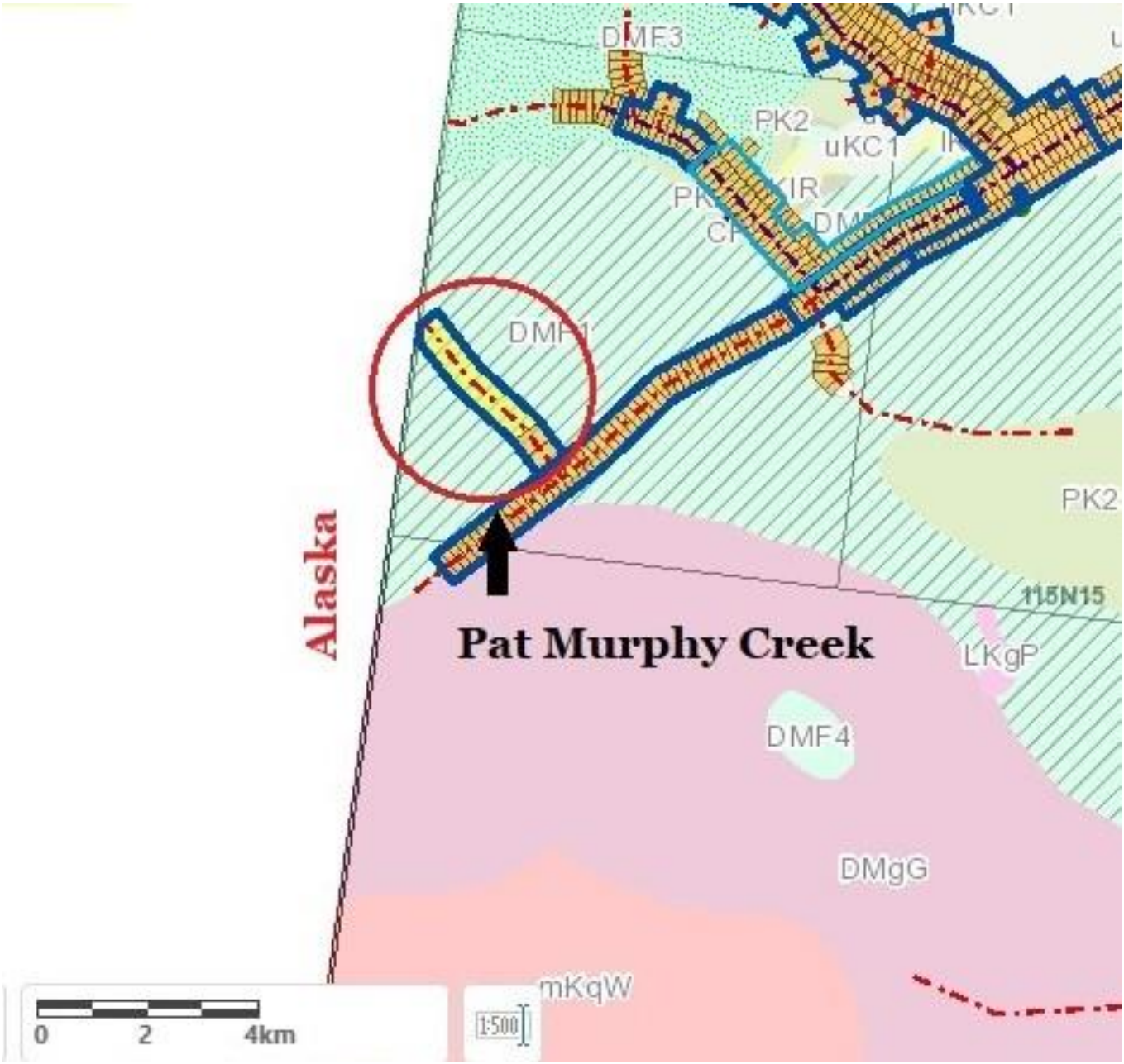
Location of Pat Murphy Creek (red star)

THE “ATUM” PROPERTY.

The property consists in two co-discovery claims, Atum 1 and Atum 2 (P 519667-68) and two miles of prospecting lease (ID 01613) which will be converted into 22 new claims before starting any eventual mining operation.

Scale: 1:30,000

BEDROCK GEOLOGY.



Scale 1:80,000

Legend:

- **DMF1**: Yukon-Tanana, Devonian to Carboniferous (365 - 345).

  Metamorphic, mafic, volcanic (cl-bi-schist, quartzite, amphibolite, phyllite).

- **DMF3**: Yukon-Tanana, Devonian to Carboniferus (365-345).

  Metamorphic, clastic metasedimentary (quartzite, cl-schist).

- **DMgG:** Yukon-Tanana, Devonian to Carboniferus (365-357).

  Metamorphic felsic (orthogneiss).

- **PK2**: Yukon-Tanana (Klondike suite), Permian (271-251).

  Metamorphic clastic (gneiss, quartzite, amphibolite, cl-schist).

The major structures in the area are the Sixtymile-Pika fault, visible toward south of the creek (which is divided in two branches), and a thrust fault located toward N-NE. According with our geophysical survey performed along seven different cross-sections of the valley, a minor fault seems to be located along the Pat Murphy Valley (in the GPR sections of next pages the suspected fault is signed with a question mark).

SURFICIAL GEOLOGY.

The alluvium of Pat Murphy Creek is for the most part composed by a full representation of the local rocks which are forming the valley sides: schist, quartzite, amphibolite.

A minor quantity of well-rounded orthogneiss cobbles together with felsic meta-intrusive rocks are also noticeable, mixed with an important quantity of coarse sand which seems be more related to a fluvial deposition rather than to a small creek activity: these rocks could possible belong to the DMgG geological unit and be originally part of the Sixty Mile River alluvium.

The pits excavated in 2018 exposed a thick layer of very fine sand mixed with fragment of schist under the modern alluvium (false bedrock?) which could possibly be related to a latest glacial episode. If this is the case, the original alluvium could be buried under a layer of glacial till.

Glacial sand (?) under microscope (x65)

The geophysical survey conducted with a GPR during this last August revealed the presence of a ‘soft’ layer of homogenous material under the modern alluvium, which is actually made by 1-1.5 package of mix boulders, cobbles, gravel and sand poorly sorted.

At the moment of our digging campaign we thought that this sandy layer was just the product of a weathered felsic dike and we stopped our digging as soon as the layer was becoming harder.

Later on, a close examination under the microscope revealed the composition of

that sand, which is made by fragments of some different rocks, to witness its mixed detrital genesis, most likely caused by glacial activities.

Test pit of 2018: sand underlie the modern alluvium.

GEOPHISICAL SURVEY.

The geophysical survey performed at Pat Murphy creek by geologist Sandro Frizzi with the help of of Matthias Brunmayr and Rocco Frizzi, has been done by using a ground penetrating radar of Bulgarian fabrication: the “Oerad Scudo 500”, especially customized for the Yukon terrains and equipped with an antenna of 300 MHz.
This devices is able to reach depths of up to 15 meters (only in very favourable conditions).

The georadar is an electronic device which transmit short energy pulses of EM waves into the ground. Each material has different electrical properties that dictate the behavior of an energy pulse beam travelling through it. Reflection, refraction, attenuation and transmission are characteristics of an energy beam travelling through a material. A receiver antenna is fine tuned to 'listen' for this behavior or material response and report it to a controller unit. A radargram is produced from the reported signal by the Rx module.

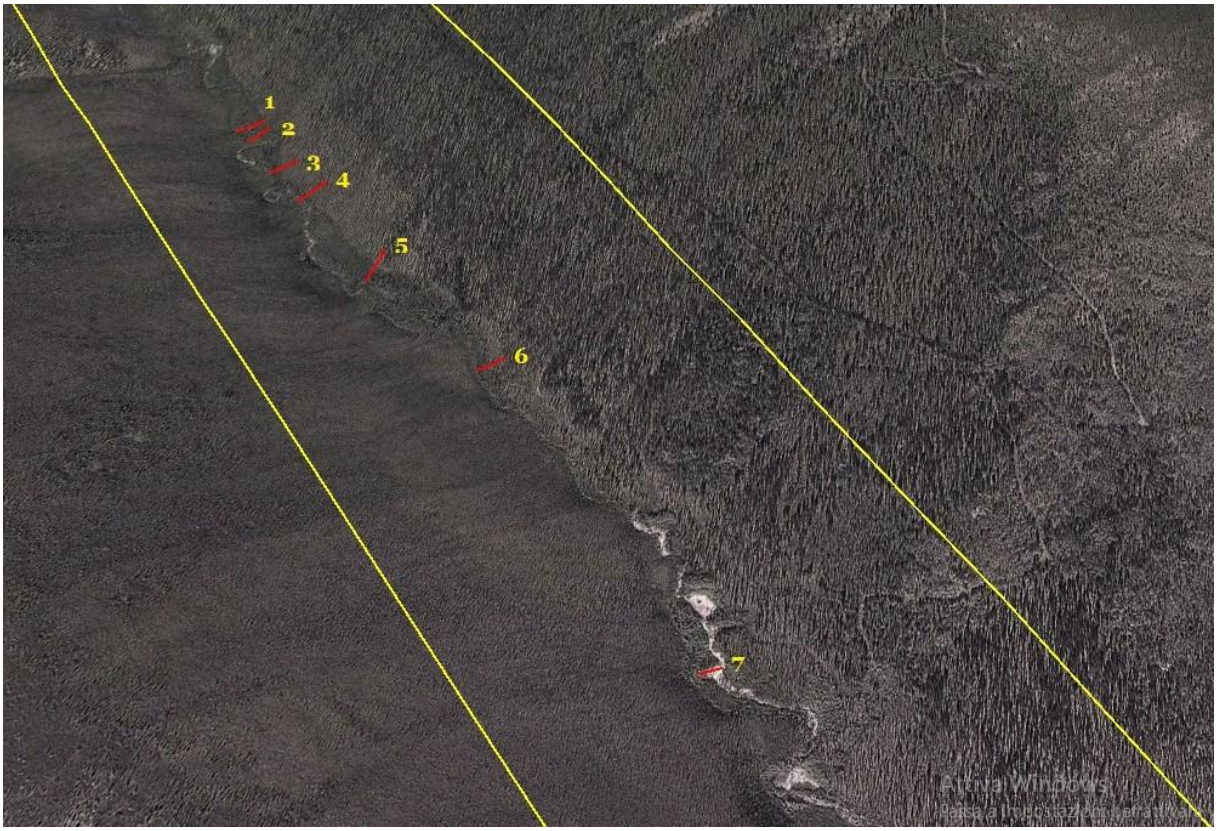
For the exploration campaign at Pat Murphy Sandro chose a dielectric constant (the measure of a material's ability to store electrical energy in an electric field) specific for permafrost: 7, which allows this specific GPR to “see” ‘till the maximum depth of 6 meters.
Each line has been passed two time: the first passage with a long time-window of 150 ns (better depth but less resolution) and a second one with shorter time-window of 75 ns (more details but less depth). The data produced by the georadar have been selected among the ‘clearest’ ones and later elaborated with the use of Prizm 2.5 software (not the best one on the marked, but reliable and easy to handle).

Green note:

“Yukon Exploration Green Gold Inc. is an exploration company with a strong ‘green ethical code’ and seriously committed in developing and promoting low-invasive prospecting and mining techniques.
The efficiency of our exploration campaigns has been proven in the past years on our properties staked on virgin grounds of new areas, which are today successfully mined.”

In the next pages are published the results (cross-sections of GPR lines and elevations) of this geophysical survey. The graphical representation has been converted in simplified drawings of the bedrock-profile, without modifying it and without using filters (ground noise-reduction or other), in order to consent an interpretation to other geophysicists.

UTMs AND LENGTH OF SURVEYED LINES.



Satellite view of surveyed lines at Pat Murphy Creek.

line 1: start 501183 - 7090578 length: 55 m
end 5012220 –7090614

line 2: start 501238 – 7090597 length: 48.5m
end 501215 – 7090560

line 3: start 501290 – 7090503 length: 55.5 m
end 501321 – 7090532

line 4: start 501363 – 7090449 length: 66.5 m
end 501394 – 7090500

line 5: start 501542 – 7090311 length: 79 m
end 501542 – 7090383

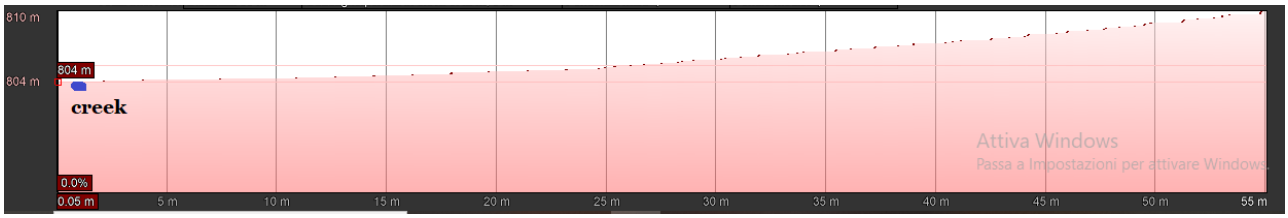
line 6: start 501775 – 7090182 length: 51.5 m
end 501806 – 7090211

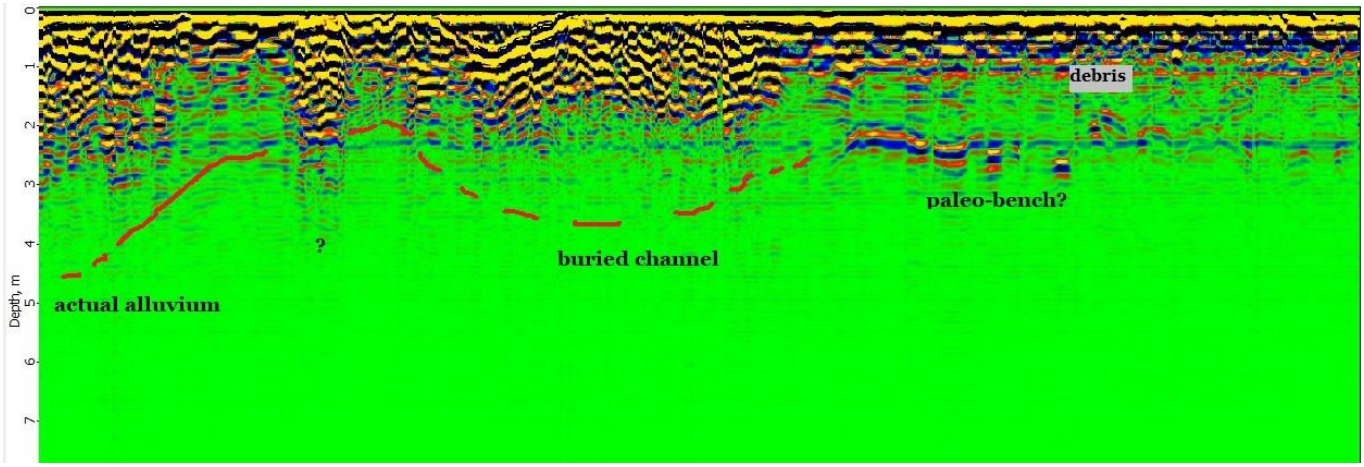
line 7: start 502202 – 7089787 length: 31.5 m
end 502222 – 7089803

Profiles of surface and depth of bedrock along each surveyed line.

line 1:

W E



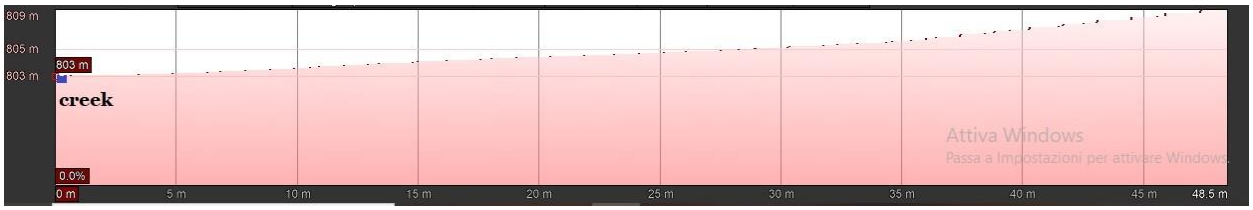


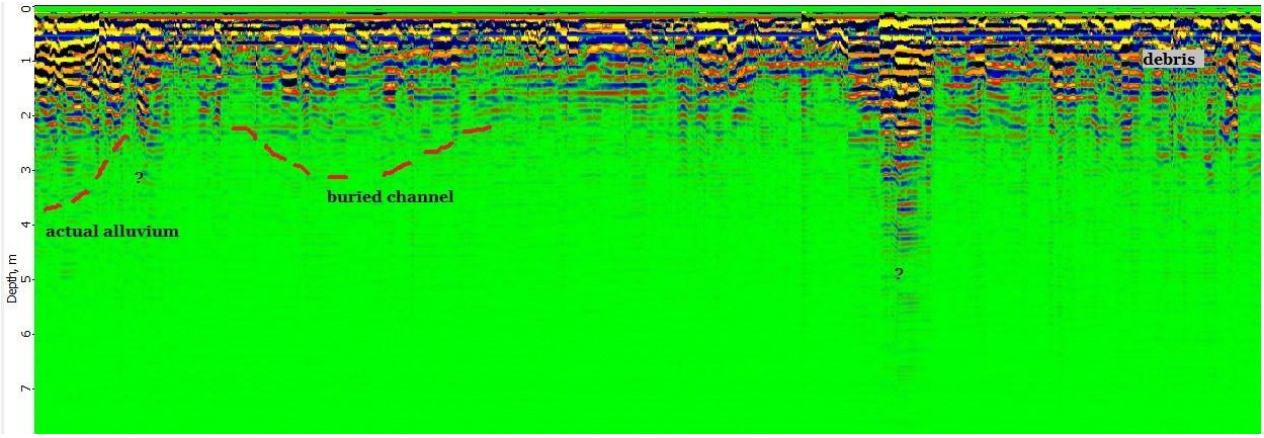
Observations: This cross-section of the floodplain reveals the presence of a buried channel located in the middle of the valley. On the right side (which is the left limit of the creek) is also visible what appears to be a paleo-bench, today covered by a thick layer of rock debris coming from the hillside.

Toward west, 10 meters after the actual riverbed, there is a strange ‘hole’ which could possibly indicate the presence of a structure (fault).

line 2:

W E

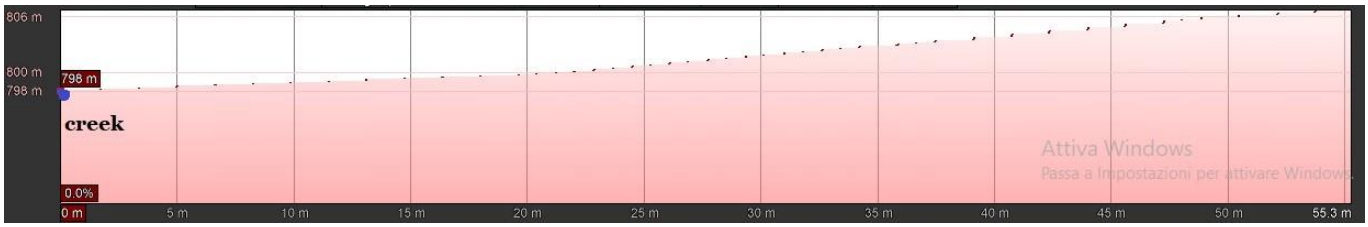


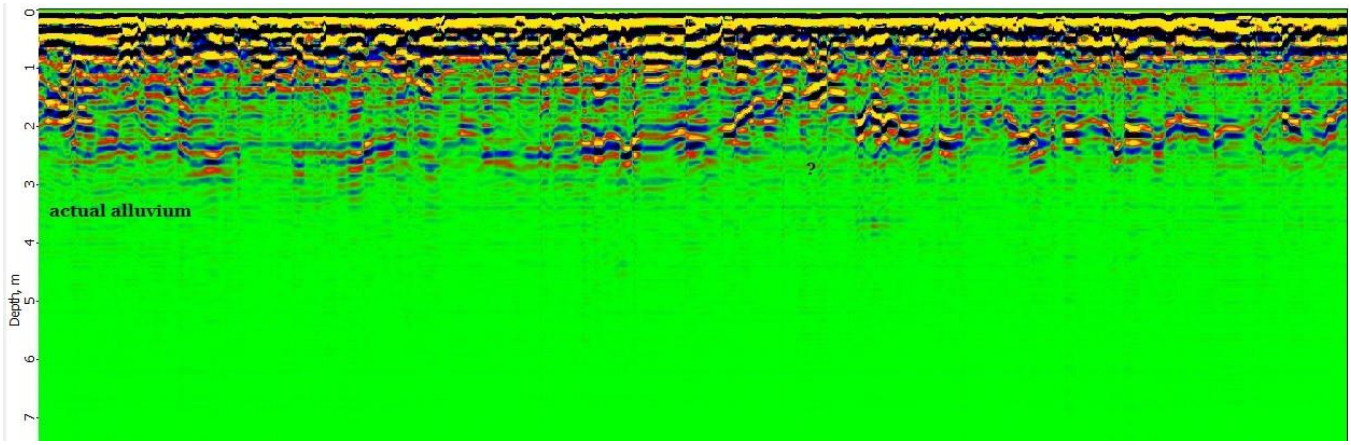


Observations: this line is not much distant from the previous and it confirms the observations registered at line .

The signs of the existence of a paleo-bench are not so clear anymore and beside that there is a strange ‘open window’ at 35 meters where the signal of the georadar seems to be able to go deeper. Hard to understand what it could represent.

line 3:





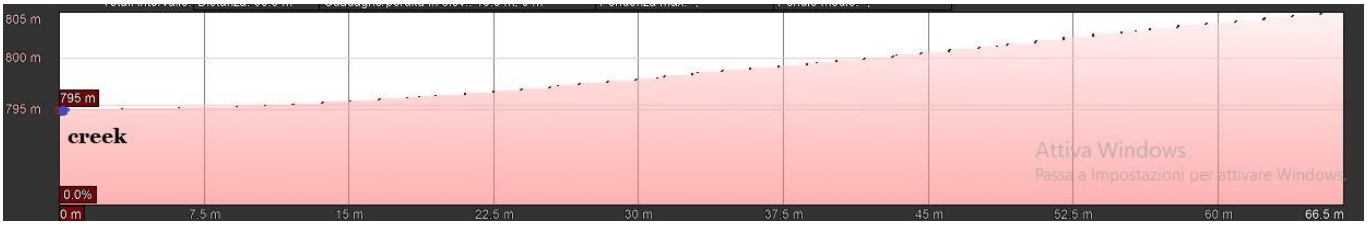
Observations: on this diagram is well visible what seem to be the bedrock, or maybe it's surrogate (false bedrock). For sure there is a level of strong changing around 2.5-3 meters of depth. Then the signal rapidly decreases, possibly for the presence of material with high dielectric constant (which means low penetrability).

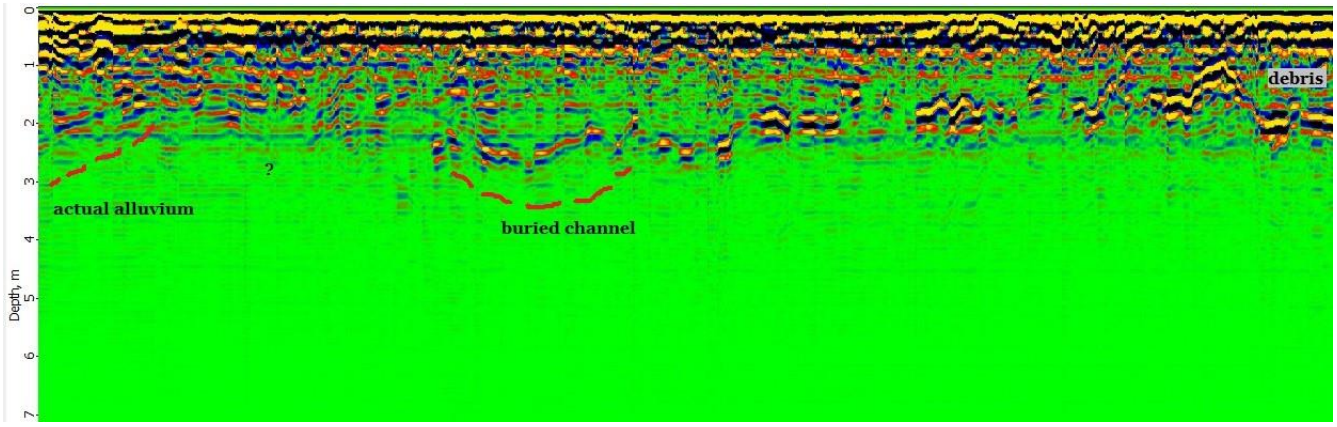
The depth increases at the beginning of the line (0m) where the creek-bed is located.

On the right side of this cross-section is now visible a possible paleo-bench.

line 4:

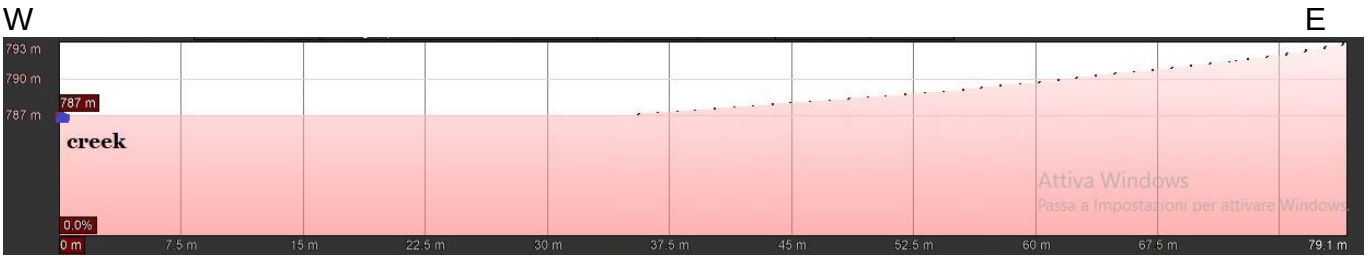
W E

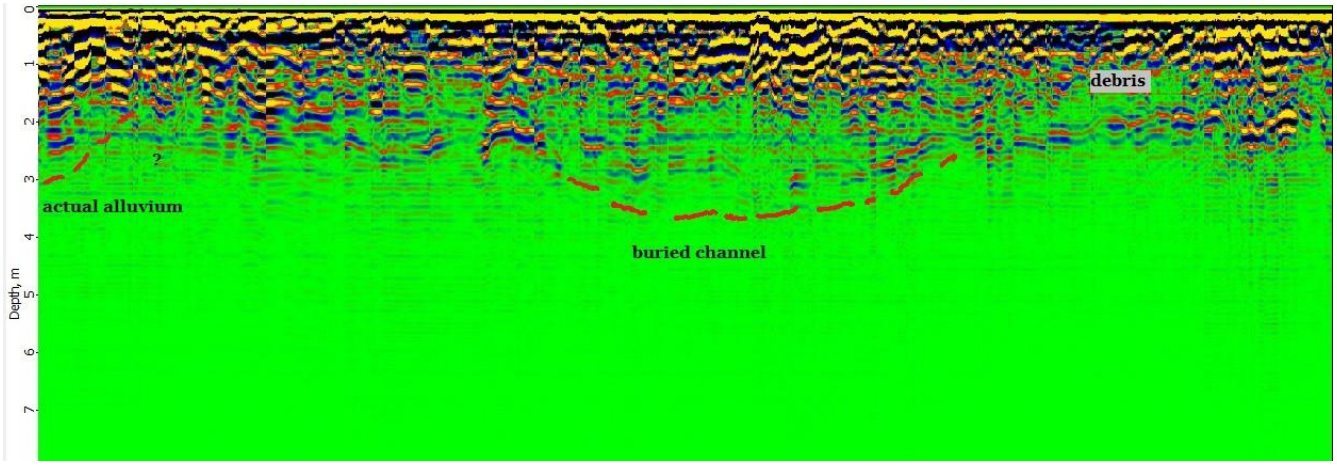




Observations: still clearly visible the buried channel in the middle of the valley and probably the paleo-bench on the east-side (left limit). The depth of the actual colluvium (visible toward west, at 0m) seems to be settled around 3-3.5 meters.
Rock debris is substantially reducing the real width of the valley.

line 5:

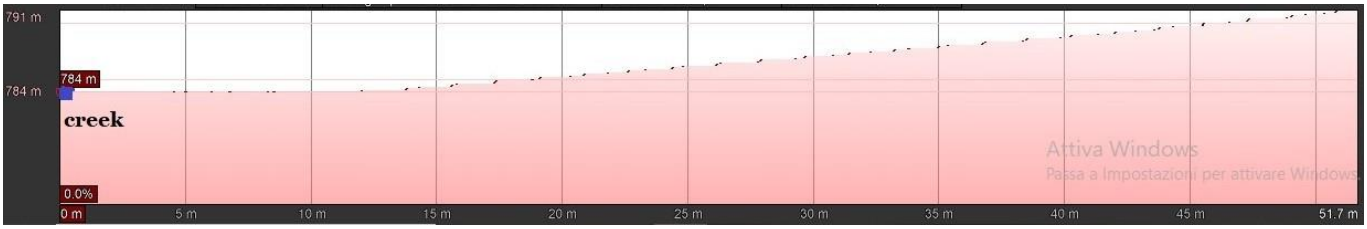


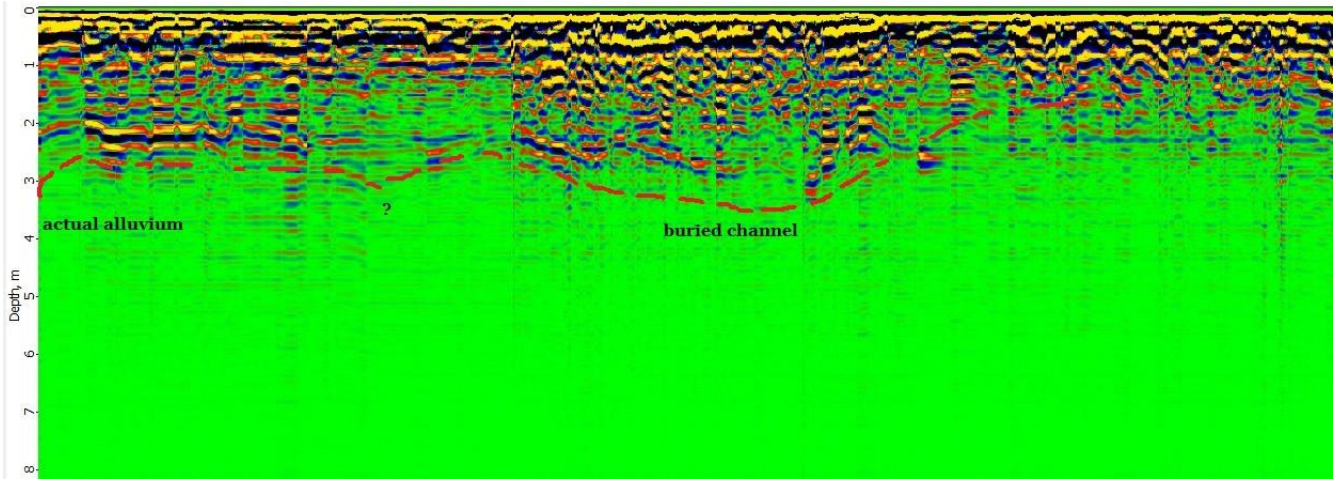


Observations: this cross-section of the floodplain, taken a couple of hundred meters downstream from line 1, confirms one more time the existence of a buried channel in the middle of the valley and the existence of a paleo-bench along the left limit. The paleo-bench has been covered through the ages by a fan of rock debris.
The thickness of the alluvium at its maximum seems to be around 3.5-4 meters.
It is unclear what's below it, where the GPR transmitted signals seem to have problem to penetrate (material with high dielectric constant).
At 15m there are still mild signs of what could possibly be a fault.

line 6:

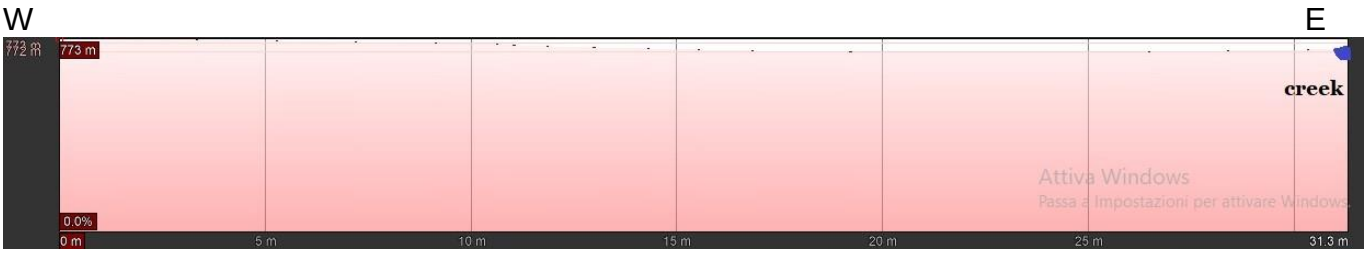
W E



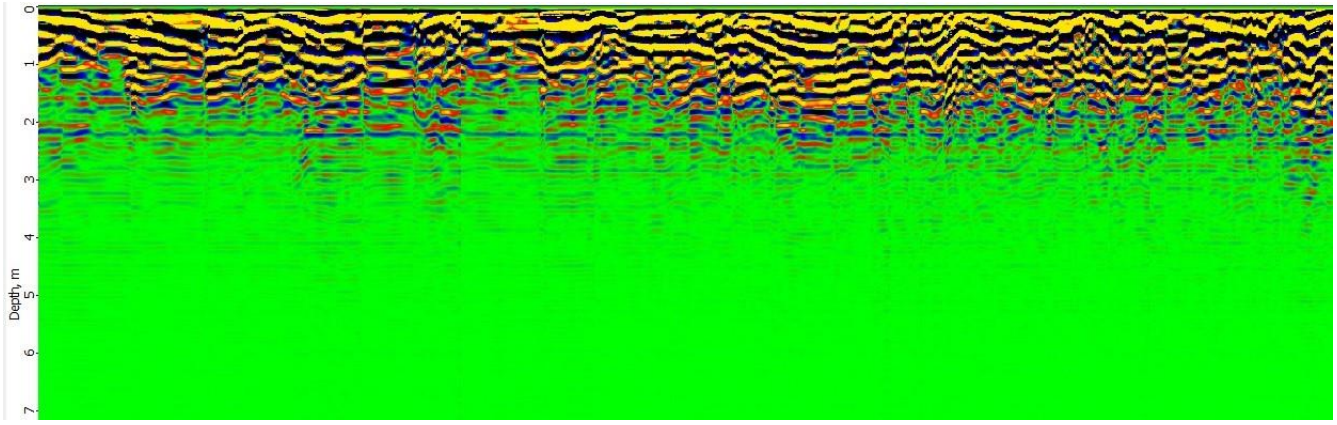


Observations: similar situation than in the previous lines. At 10m from the starting point (0m) there is still that visible deep ‘fracture’ which we decided to interpret as a fault running along the bottom of the valley.
The depth of this modern alluvial mattress seen to be located around 2.5 and 3.5 meters: a bit too shallow to be the real bottom of this wide valley…

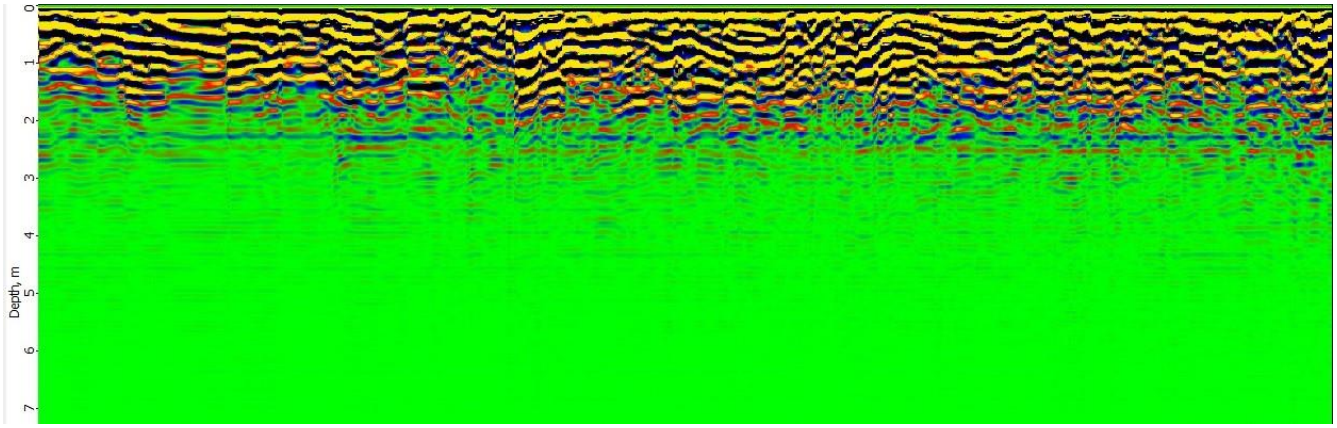
line 7:


W
E
773 m
772 m
creek
0.0%
0 m
5 m
10 m
15 m
20 m
25 m
31.3 m

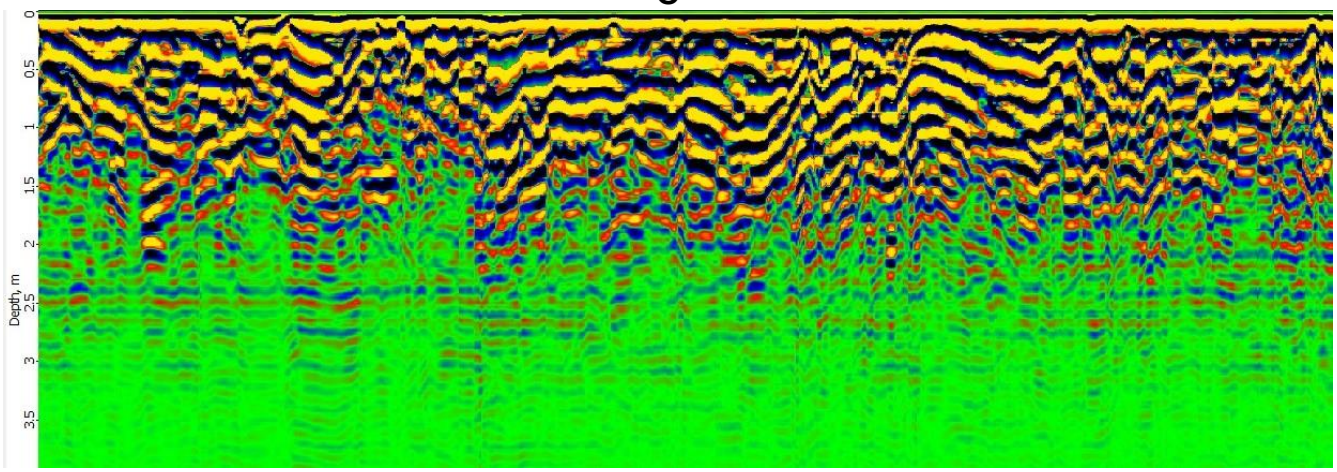
A


Depth, m

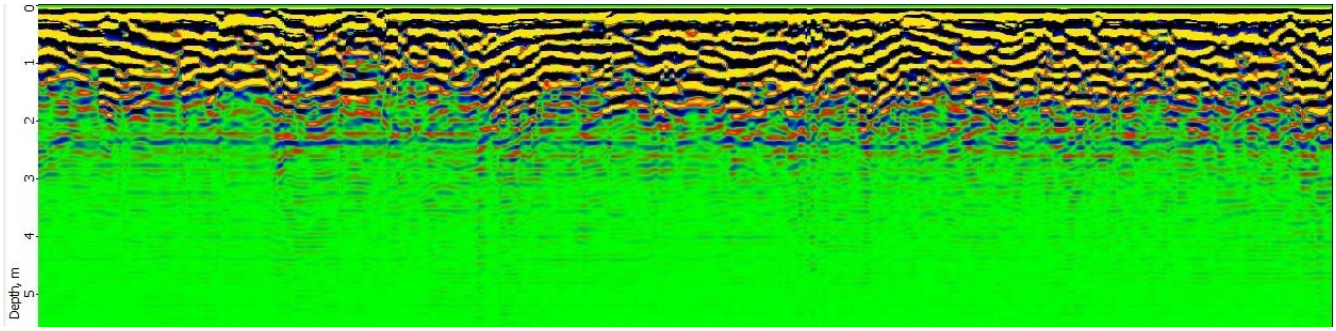
B


Depth, m

C


Depth, m

D



Note: these are four different surveys of the same line, done with different GPR settings:
A = dielectric constant 7, time window 75*ns.*
B = dielectric constant 7, time window 150*ns.*
C = dielectric constant 4, time window 75*ns.*
D = dielectric constant 4, time window 150*ns.*

These sections are representing the best prove about the reliability of this geophysical device (GPR)! A close examination reveals that they are representing exactly the same reality, starting from the thickness of the alluvium, up to the shape of the bedrock (or false bedrock) below it.

Line 7 is located on claim Atum2, where last summer we performed our unsuccessful pit-testing campaign. The holes dug by us are confirming the thickness of the gravel deposition indicated by our ground penetrating radar.

Observations: the depth of what seems to be the bedrock is around 2.5 meters.
That bedrock is definitely too shallow to be realistically considered the bottom of such of wide valley: what's the explanation of it?
Answer: the material that underlie the gravel is not the real bedrock, it's actually a 'false bedrock' composed of that very fine sand exposed during our digging campaign of 2018.
That fine sand lies under the groundwater level and that's the reason why the GPR cannot penetrate that layer (wet fine-sand is drastically reducing the penetration depth).

What's the origin of that sand?
Answer: most possibly is glacial related, but at this time it's still under examination and soon we should have a final answer.

CONCLUSION.

Since 2017 our group (Yukon Exploration Green Gold Inc.) invested energies and capitals in searching for placer along Pat Murphy Creek (map 115N15).

After a preliminary prospecting campaign conducted in 2017, we performed a testing campaign in 2018, by using an excavator and a portable washplant. That testing campaign returned extremely poor results, contrariwise to what we were expecting.

During the winter of 2018-19, after a better analysis of the results produced by that unfortunate campaign, we found out that our interpretation of the tested bedrock could have possibly be wrong: that fine sand recovered under the alluvial mattress could be part of a deposit of glacial till instead the product of a weathered felsic dike!

We decided to plan a further investigation and in August of this year we performed a geophysical survey in the area by using a georadar, in order to expose more detailed features about the composition of that bedrock.

The results of that survey are explained in this report and are showing (see line 7 observations) the existence of a layer of soft material underlying the modern alluvium.

That material is composed by fine sand mixed with chips of broken autochthonous rocks and seems to be originated by glacial activities occurred in the area.

At this time few samples of that material is under analysis to determine its origins.

If the glacial origins of that sand will be confirmed, we will plan a drilling campaign for the next summer (2020), aimed to search for a possible paleo-placer buried under that till coverage.

Sandro Frizzi, geologist and prospector
For Yukon Exploration Green Gold Inc.
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1 (604) 500-4109

LIST OF EXPENSES

Field expenses:	1 Geologist for 2 days (at $400/day)	= $ 800
	1 Field-helper for 2 days ($ 275/day)	= $ 550
	TOT:	= $ 1,350
Data interpretation and report compilation:		= $ 2,5oo
GPR rental:	“Scudo 500” with 300 MHz antenna (500/day)	= $ 1,000
	TOTAL	= $ 3,500
	GRAND TOTAL	**= $ 4,850**

Expenses not recognizable for assessment work (camp-cost, transportation) : = $ 400

PROFESSIONAL QUALIFICATION OF SANDRO FRIZZI.

Sandro Frizzi is an Italian citizen and a permanent resident of Canada since 2009, born in Italy the 28th of August 1961. He works and lives in Dawson City since 2011 (1342, 4th Ave.).

In 1993 Sandro obtained the University degree in Geological Sciences at the “Universita’ di Bologna” with specialization in hydrogeology, aquifers and alluvial deposits.

As geologist he worked as a consultant for several companies in Italy (1993-2004), in Canada (1997-2017), in Bolivia and Argentina (2009), and in Mexico (2010-11).

Since 2005 Sandro is operating in Yukon as geological consultant in hard-rock exploration (2005-2009) and successively self-employed in placer mining industry (2009-today).

Since 2013 is co-founder and director of Yukon Exploration Green Gold Inc., a placer exploration and mining enterprise. The company today is holding several fully licensed properties, some of those already in production (Big Creek, California Creek, Bruin Creek and 12 Mile Creek).

In 2018 he created Gold Pan Corp, a small placer exploration company specialized in low-impact technologies (since 2009 Sandro dedicated part of his time to test and to promote non-invasive and eco-friendly exploration techniques like ground penetrating radars, magnetometers, gravimeters, etc.).

In 2013-14-15 he conducted his first successful exploration along the floodplain of Big Creek (Map 115P15) with mechanical equipment and also by using for the first time a ground penetrating radar of Russian fabrication. That experiment revealed the efficiency of the GPR in the determination of bedrock’s profile and led to an important discovery (an hidden bench which revealed rich in gold). After this positive result, during the winter of 2016-17, Sandro travelled to Plovdiv (Bulgaria) to work together with electronic engineer Anton Doychev to customize two GPRs: Oerad Scudo 500 and Dipole 300, especially calibrated for the placer characteristic of the Yukon.

He’s best prospects have been done at Big Creek (Red Mountain), California Creek (Sixty Mile), Huot Gulch and Excelsior Creek (Yukon River).

During this summer of 2019 Sandro is working along the Top of The World Highway, trying to find a geological link among the many gold-carrying tributaries running from the watershed divide between Fortymile and Sixty Mile rivers.