-Geophysical and Geological survey -

Surficial geology at Linus property: Prospecting for placer deposit with a GPR (ground penetrating radar).

Lemare Gulch and Nevada Creek (map 115O15)

Satellite view of Linus Property

By PhD geophysicist Boris Logutov and geologist Sandro Frizzi
Location of Linus Property on map

(claims are outlined in red)

Scale 1:300,000

North Δ
The Linus Property

Map 115015

Scale 1:30,000

Linus Property is outlined in red.
Linus Property consists in 12 claims:

Champs Elysee 1-2 (P517119-20)
Champs Elysee 3-4 (P518026-27)
Champs Elysee 5 (P518042)
Linus 1-2 (P517168-69)
Linu 3-4 (P518028-29)
Linus 5-7

The property lies between Lemare Gulch and Nevada Creek, both tributaries of the historical Dominion Creek. It's visible on Map 115015, roughly 50 km south-east of Dawson City.

The claims are accessible by road: from Dawson City by driving toward east on the Klondike Highway until the junction with Hunker Creek Road and then turning right, until Dominion Creek Road at km 15 (the property is well visible along the left side of the road; Champs Elysee 3 will be the first encountered claim). These roads are well drivable at anytime, preferably by 4x4 vehicles.
Legend:

- PDS1: Yukon Tanana (Devonian to Upper Devonian). Clastic.
Quartz, mica-schist.

Metamorphic rocks.

- ODS: Laurentia (Devonian to Middle Devonian). Clastic.
  Pelitic schist, marble.
  Metamorphic rocks.

- PDS2: Yukon Tanana (Devonian to Upper Devonian).
  Marble.

Outcrops of these rocks are easy to find along the hillsides in the surrounding of Linus Property.
Surficial geology

At Linus the morphology of the lower portion of the property runs parallel to Dominion Creek Valley and for its terraced appearance seems to enclose the potential for hosting upper benches related to a younger phase of Dominion Creek. A bunch of old-timers shafts, pits and trenches are well visible here and there, scattered along these 'terraces' which are elevated few meters above the modern floodplain. Although this promising evidences, during our prospecting days spent along this upper levels of the property, we couldn't record presence of
alluvial material: these 'terraces' are just eroded hillsides and there is not alluvial
gravel deposited on top of that bedrock (made by the usual Klondike's mica-
schist), just fine-grinded colluvium. From the pits dug by us and by others here
and there, we collected samples of this colluvial material.

The interesting part of the testing campaign conducted along these upper areas of
the property is that, by panning this angular loose sediments, we recovered
several small flakes of flattened gold of undubitable alluvial origin (not colluvial).
Where is this gold coming from? How much of it is disseminated along these
lower erosional terraces?

It is too early to provide answers, as the prospecting campaign at Linus Property
is still at its very early stage. During the next exploration season (2017), a portion
of bulk sampling campaign will be dedicated to this 'benches'.

The main target of the two claims owners are the three creeks enclosed in the
claims: Lemare Gulch, Nevada Creek and a smaller unnamed pup located in
between the two.

Nevada Creek is the most important target, for its extension, location and also for
the lower level of its floodplain which in the past could have been interested by an
old passage of Dominion Creek (one of the richest historical gold creek of the
Klondike). The lower part of Nevada Creek is showing deep/old shafts, trenches
and pits which are exposing a noticeable extension of gravel. This creek doesn't
need further prospection, just an extensive bulk-sampling test.

Lemare Gulch is also hosting signs of older mining/prospecting activities,
specially along its middle-lower section. Hand build channels to collect the water
and the remains of wooden sluices are still visible to a distance of 3-400 meters
upstream from the modern road. Signs of digging are easily recognizable in the
banks on both side of the creek. At Lemare Gulch the estimation of the volume of
mineable alluvial deposit is complicated by a thick coverage of organic soil and
vegetation and by the deeply frozen ground along the entire floodplain. It will be
impossible to prospect without the help of heavy equipment (a 20 tons excavator
won't be enough to dig it). **For these reasons we decided to use a not
invasive geophysical tool during this early stage of our research: the
ground penetrating radar.**

With the GPR at Lemare Gulch we will be able to determine the extension of the
alluvial deposition, in order to understand if this small creek deposited enough
gravel to justify an investment for an expended bulk sampling campaign to
conduct during summer of 2017. In order to 'see' this deposition, according with
geophysist Boris Logutov, we planned two parallel lines cross-cutting the creek toward its lower end. The result of this survey is well visible in the next pages.

Colluvium exposed in a cut along the supposed Dominion Creek bench at
UTM 615693-7078515

Well rounded gravel on Lemare Gulch at
UTM 515624-7078581
Geophysical survey

During August/September of 2016, geologist Sandro Frizzi prospected the area and recorded the presence of several shafts of different ages. Despite the existence of these shafts, located all along the upper part of the left valleyside of Dominion Creek, no gravel has been recorded in the material extracted from the shafts by the old timers. It seems that these apparently benches are just covered by colluvial with minor eluvial material. During this prospecting campaign, a small amount (few bucketts) of fine-grinded, angular material has been tested by panning and revealed the presence of fine/flattened gold. We need now to understand if these upper 'benches' are hosting some patches of gravel provenient from the Dominion Creek.

We also need to estimate the volume of alluvial gravel deposited by the two main creeks enclosed in the Linus Property.

As previously written on this report, Nevada Creek has been interested by several prospecting campaigns, and with the help of the existing shafts, trenches and test pits disseminated along its floodplain we were able to report a gravel deposition extended enough to justify a bulk-sampling campaign planned for 2017.

Lemare Gulch instead has been mostly neglected, except for signs of ancient old-timers activities visible in the middle part of the creek and along its banks. For this reason we decided to dedicated a further exploration to Lemare Gulch and to its left limit where few old shafts are still well visible today along what was appearing to be an old Dominion Creek bench.

At Lemare Gulch, geologist Sandro Frizzi decided that the use of a GPR survey will be the most economical and efficient way to verify if this creek deposited enough alluvial material to justify an extended bulk sampling campaign to be conducted along its floodplain during 2017.

The 15th of September, Mr. Boris Logutov, a brilliant geophysicist from the University of Perm (Russia), was hired to perform two lines of GPR survey across the lower part of the Lemare Gulch Valley. Mr. Logutov used an
Ucrainan/German made ground penetrating radar, the "EasyRad GPR", an electronic device designed for geological purposes. To prospect Lemare Gulch he used an antenna of 100 MHz.

Mr. Logutov prospected 2 parallel lines located along the lower part of the creek (see satellite location picture in the next page), where the floodplain appears to be particularly suitable for an extensive bulk-sampling campaign. The lines are measuring 165m (line 1) and 115m (line 2) and they are located 70 meters apart, crossing the valley.

The result of the GPR survey (see graphic in the next pages) has been interpreted and elaborated by Mr. Logutov and analyzed by Mr. Frizzi.

_Boris Logutov is calibrating his GPR._
Location of GPR lines

UTM:

line 1 start: 615705 - 7078496
Conclusions

Thanks to this preliminary geological prospecting conducted by geologist Sandro Frizzi and to the GPR surveying performed by geophysicist Boris Logutov, the owners of Linus Property acquired several information regarding the placer potential of this area:

- the alluvial material deposited by the Lemare Gulch seems to be extended enough (more than 50 m wide and 5-7 meters thick) to encourage to invest in a bulk-sampling campaign to perform along the floodplain of this modest, still interesting tributary of Dominion Creek.

- the prospecting campaign conducted along the floodplain of Nevada Creek revealed an interesting succession of old shafts, pits and trenches of different ages, to testify that some past gold discovery certainly occurred along this creek. The wide extension of deposited alluvium and the favourable geological location of this creek are definitely encouraging to plan a bulk-sampling campaign to perform along this floodplain with heavy equipment.

- on the left limit of Lemare Gulch, what originally appeared to be an upper bench of Dominion Creek revealed to be just an eroded, flat section of the hillside and doesn't host alluvial material, only colluvium (as well visible to the right side of the graphic produced by Boris Logutov). However, the samples of fine/angular colluvial material collected by us from different pits dug above the bedrock are showing small specs of flattened gold. Further exploration of this hillside should be performed in a lower budget in the next future.

By the end of this first preliminary geological and geophysical exploration campaign, the two claims owners of Linus Property, Mr. Thibaud Gaillard and Mr. Rocco Frizzi decided that an exhaustive testing campaign will be planned for
the mining season of 2017.

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