

**WORK REPORT ON SUMMER, 2022, FOLLOWUP
SURFICIAL GEOLOGIC MAPPING & SAMPLING,
OVER A PART OF THE BRI PLACER CLAIM GROUP
MONTGOMERY CREEK, MT. NANSEN AREA, YUKON**

**Field Work & Report by:
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Beausejour, Manitoba**

**Property Holder:
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**Field Work July 20 – 30; 2022
Report Completed August 6, 2022**

Summary of Reported Work:

Geographic Area: NTS 115-I-03P, Mt.Nansen, 137.06°W,62.07°N,Whitehorse M.D.

Mineral Disposition: P513343 (BRI 1) & P527351 (BRI 2)

Target Commodity: placer gold

GPS Flagged Grid: 1.04 line km, 20m line spacing, 20m station spacing

Surficial Geologic Mapping: 1.04 line km, 1:2000 scale

Samples: 1 cu. yard screened & sluiced

Report Software: Microsoft Office Word, Paint

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SUMMARY

This report describes the results of a small program of flagged grid installation, elevation surveying, surficial geological mapping, and sampling on a part of the BRI group of placer mining claims on Montgomery Creek (MONT project) in the Mt. Nansen area of the Yukon. The property was staked as one claim and a placer prospecting lease in August, 2020. The prospecting lease was restaked as placer claims in August, 2021, following the completion of an initial work program. The 2021 work is described in a previous report by the author titled "Final Work Report on Summer, 2021, Surficial Geologic Mapping, Magnetic Survey, VLF Electromagnetic Survey & Sampling Over Placer Claim P513343, BRI 1, & Prospecting Lease IW00749, Montgomery Creek, Mt. Nansen Area, Yukon", dated December 31, 2021. That work identified an area of exposed gold-bearing fluvial gravels at the bottom of the valley on the BRI 1 claim.

This report describes a work program, completed during July, 2022, of surficial geological mapping designed to better outline the distribution of these gravels, as well as a larger sampling program. These gravels are interpreted to have been deposited within and adjacent to a previous channel of Montgomery Creek, pre-dating the deposition of a thick unit of sand covering much of the upstream portion of the valley. The mapping work was done with a hand soil auger, due to a thin (0.1 to 1.0 m) layer of sand overlying much of the area. From this work, fluvial gravels are interpreted to underlie an area of at least 160m square, open in all directions, with minimal overburden stripping, but local permafrost. Thick sand deposits overlie these gravels up-valley to the east. A 1 cubic yard sample from pits less than 1 m deep in these fluvial gravels returned 0.03 grams of gold. While substantially less than an economic grade, placer miners in the area report that grades increase significantly with depth.

Additional work is recommended to evaluate the placer gold potential of these gravels and the balance of Montgomery Creek valley. Further sampling, with larger volumes, needs to be done on the fluvial gravels on the BRI 1 and BRI 2

claims. Ultimately, drilling or deeper backhoe sampling will be needed to evaluate the deeper placer gold potential on this creek.



William C. Hood, P.Ge.

August 6, 2022

INTRODUCTION

This report describes the results of a small program of flagged grid installation, elevation surveying, surficial geological mapping, and sampling on a part of the BRI group of placer mining claims on Montgomery Creek (MONT project) in the Mt. Nansen area of the Yukon. The property was staked as one claim and a placer prospecting lease in August, 2020. The prospecting lease was restaked as placer claims in August, 2021, following the completion of an initial work program. The 2021 work is described in a previous report by the author titled "Final Work Report on Summer, 2021, Surficial Geologic Mapping, Magnetic Survey, VLF Electromagnetic Survey & Sampling Over Placer Claim P513343, BRI 1, & Prospecting Lease IW00749, Montgomery Creek, Mt. Nansen Area, Yukon", dated December 31, 2021. That work identified an area of exposed gold-bearing fluvial gravels at the bottom of the valley on the BRI 1 claim. This report describes a work program, completed during July, 2022, of surficial geological mapping designed to better outline the distribution of these gravels, as well as a larger sampling program.

The Mt. Nansen district has had a history of modest placer gold production along Nansen Creek and Victoria Creek, as well as various tributaries. These placer creeks occur in the area of two main bedrock gold vein systems, the Mt. Nansen deposit, presently undergoing site rehabilitation, and the Klaza deposit, presently under active exploration. Placer gold exploration in the Mt. Nansen area is complicated by glaciation, which has both covered and redistributed surficial gold, but recent discoveries of significant placer accumulations at depth above weathered bedrock has generated new interest in the area.

This work on Montgomery Creek is intended to provide baseline geological data for future drilling and/or backhoe sampling.

LOCATION, ACCESS & PHYSIOGRAPHY

The Montgomery Creek property is situated in southwestern Yukon, about 170 km northwest of Whitehorse, and 40 km due west of the town of Carmacks (Fig. 1). The property is 3 km northeast of the Mt. Nansen mine, which is presently undergoing site rehabilitation. Basic groceries, supplies, fuel and accommodations are available in Carmacks.

Access to the property is from the Mt. Nansen road, which is a one-lane gravel road that is maintained year-round by the Yukon government to provide access to the Mt. Nansen mine rehabilitation project as well as placer mines and exploration projects in the area. The driving distance from Carmacks to Back Creek is 60 km, with the last 2.7 km from Back Creek to Montgomery Creek requiring ATV travel to the north on the old Freegold road up the west side of Victoria Creek. The Freegold road crosses the northwest corner of the MONT project claims. During summer, 2022, ATV access was only possible to a point about 300m southwest of the work area, due to high water levels on Victoria Creek. Camp location for this project was on the Nansen/Klaza road, about 1 km west of the Mt Nansen mine, utilizing existing tent camp facilities from a mineral exploration project, not in use in summer, 2022 (Photo #1, Appendix).

Physiography in the Montgomery Creek area is hilly, with ridges flanking both the north and south sides of the valley, which trends east-northeast from Victoria Creek. However, the 2022 work area on the BRI 1 claim is quite flat, with elevations in the 1040 to 1050m range. The 2022 detailed work area lies immediately below a prominent 10m high scarp of sand, which covers much of the valley above the work area.

The south-facing, north side of the valley and valley bottom of Montgomery Creek is well treed with spruce and minor poplar. The north-facing, south side of the valley is sparsely vegetated with hummocky moss and buckbrush, with local permafrost. Creek bottoms are brushy with willows. The 2022 work area lies



immediately northwest of Montgomery Creek, in an area with few trees but relatively thick buckbrush.

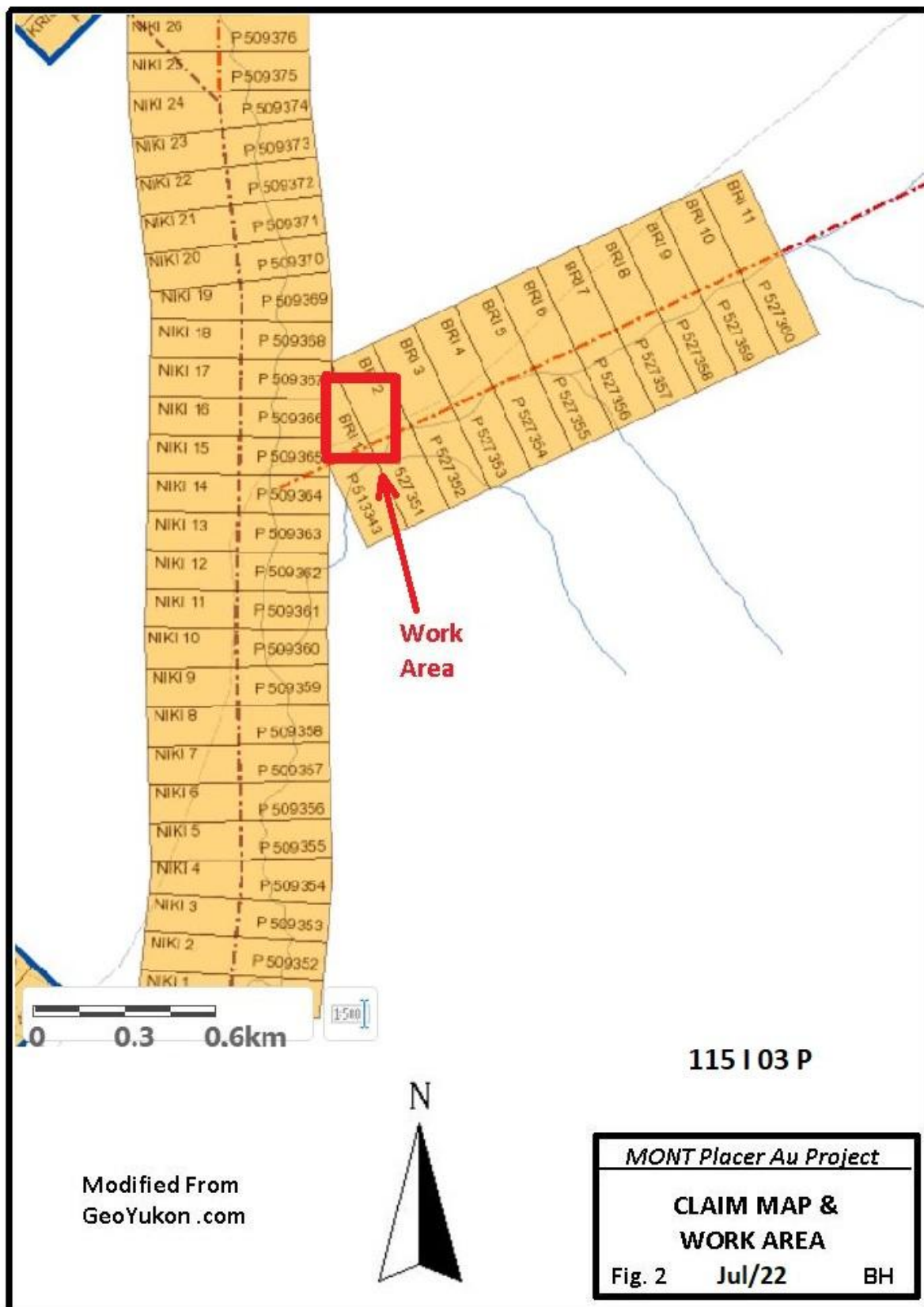
CLAIM STATUS

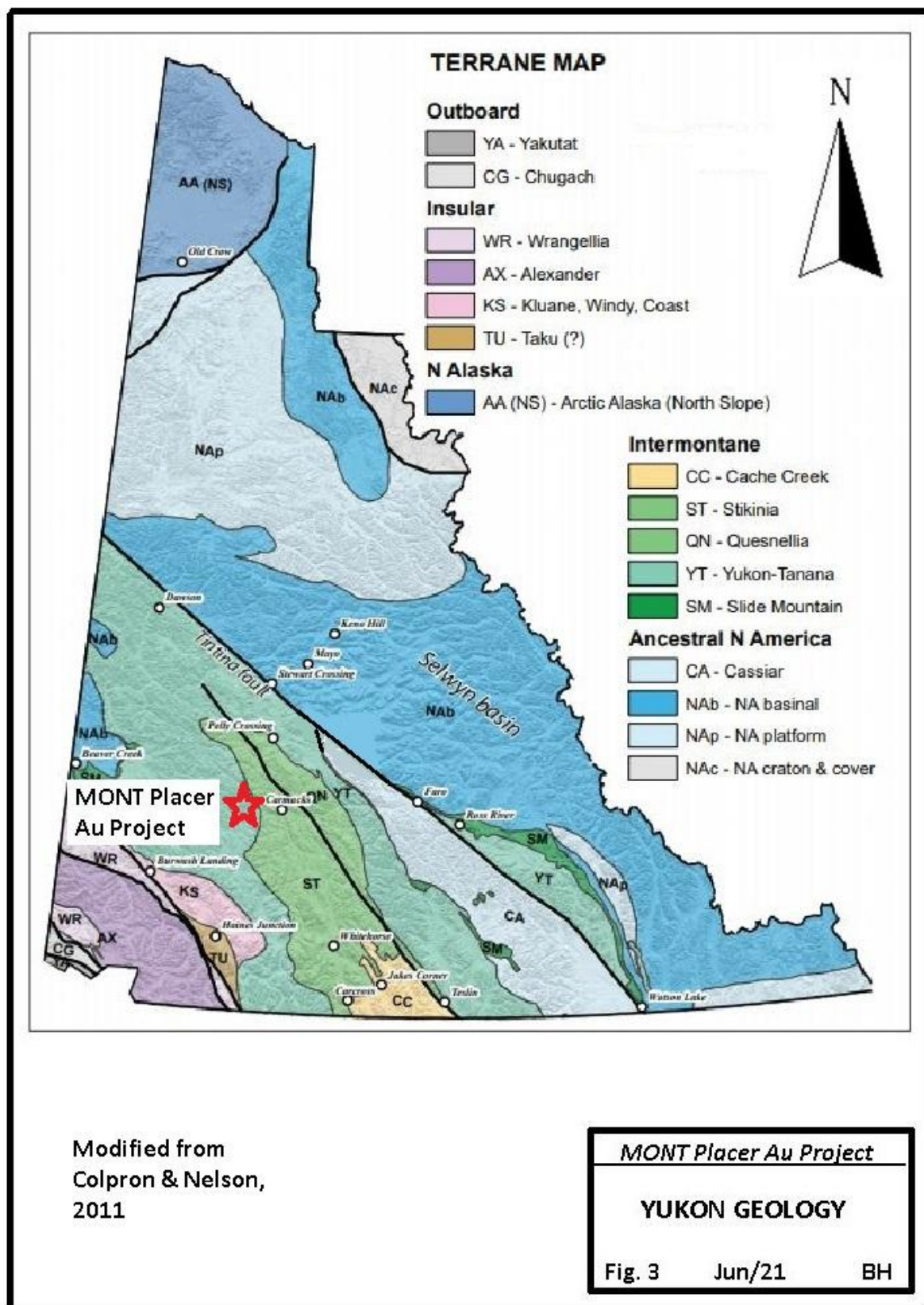
The Montgomery Creek placer gold property (MONT Project) was initially staked in August, 2020, as a single claim at the bottom of the valley, BRI 1, P513343, and a one-mile prospecting lease above that, IW00749. Following filing and acceptance of a preliminary work report on the initial phase of the project in July, 2021, the prospecting lease was restaked as ten placer claims, BRI 2 to 11, P527351 to P527360, up the valley. The central location line trends about 060° by 240° azimuth along Montgomery Creek. The BRI 1 claim is in good standing until August, 2026, while the remaining claims are presently good to August, 2022. Claims BRI 1 to 10 are grouped under GW01398. The claims are held by William C. Hood, of Beausejour, Manitoba, the author of this report. The claim map and work area are shown in Figure 2.

GEOLOGY

The Mt. Nansen area lies within the Yukon Tanana terrane, which is interpreted to have formed in an island-arc/back-arc basin environment associated with Mesozoic era continental accretion. Basement rocks in this terrane comprise assorted schists and gneisses of Proterozoic through Paleozoic age. These rocks are cut by a range of intrusive and volcanic rocks of Jurassic to Cretaceous age (Fig. 3).

The Mt. Nansen area is underlain by older metamorphic rocks of the Yukon Group to the south, cut by younger Cretaceous intrusive and volcanic rocks to the north, including the southeast end of the Dawson Range Batholith. These rocks are intruded by numerous late porphyritic dikes throughout the area, with associated





gold-bearing veins and porphyry systems, including the formerly producing Mt. Nansen mine and the Klaza deposit, presently under active exploration (Fig. 4).

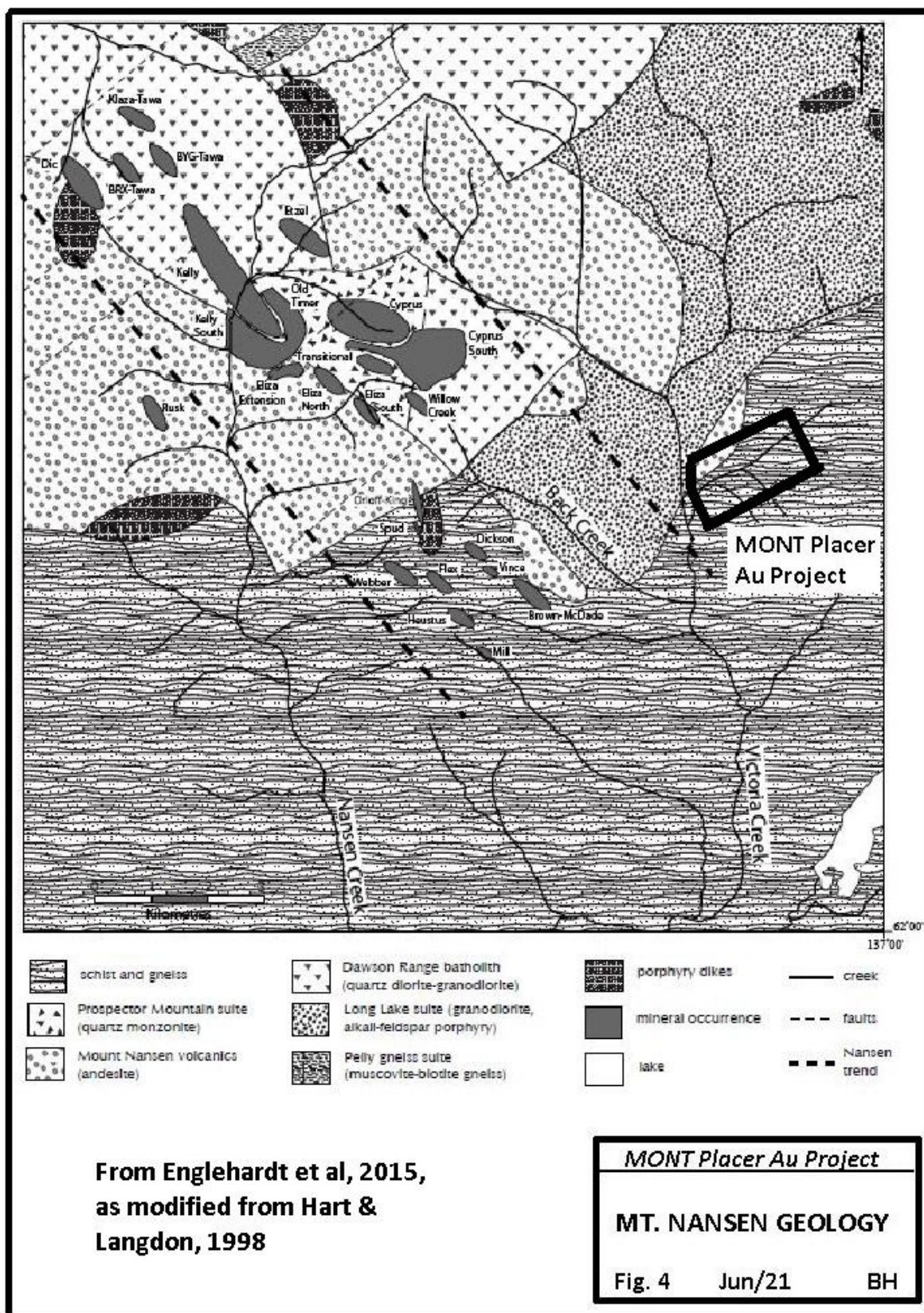
The area of the MONT project is underlain by older schist, gneiss and amphibolite to the southeast, intruded by younger granite, granodiorite and monzonite to the northwest. Late porphyry dikes, associated with gold-bearing veins, are believed to intrude parallel to this contact, and may extend across the Montgomery Creek valley (Fig. 5). The Ang vein, south of Montgomery Creek, the Wind occurrence near the headwaters of Montgomery Creek, as well as the high-grade Montgomery vein float boulder all indicate bedrock sources to feed gold into the surficial sediments.

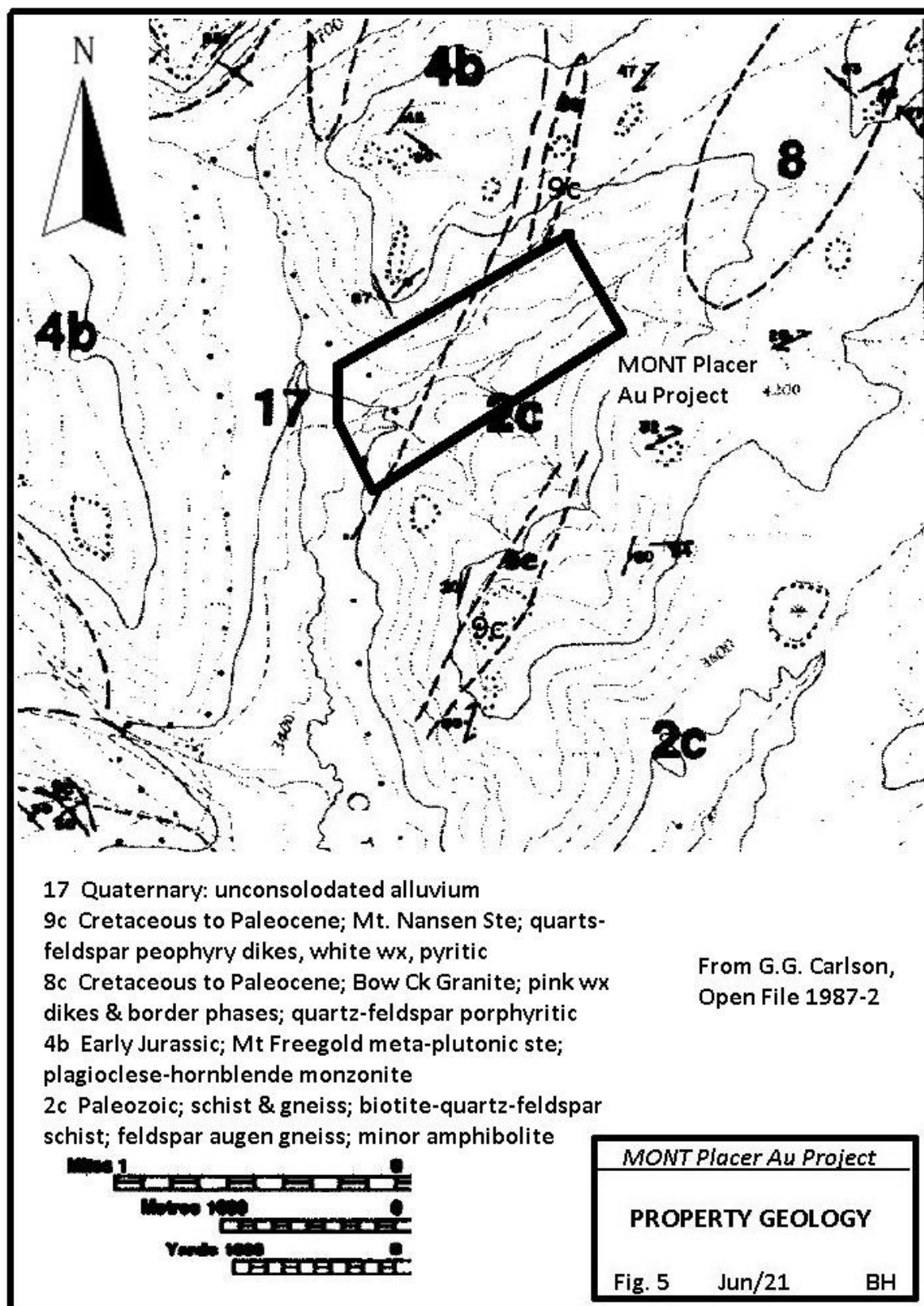
Placer gold production in the Mt Nansen district, and the interpretation of potential target areas for additional production, has been complicated by glaciation which has both redistributed gold grains and covered pay gravels with till (Fig. 6). Most historical production has been from surface gravels, and above the “false bedrock” of clay-bearing glacial till units, but recent work has indicated that significant gold can be recovered from deep gravels above weathered bedrock, though with high stripping ratios.

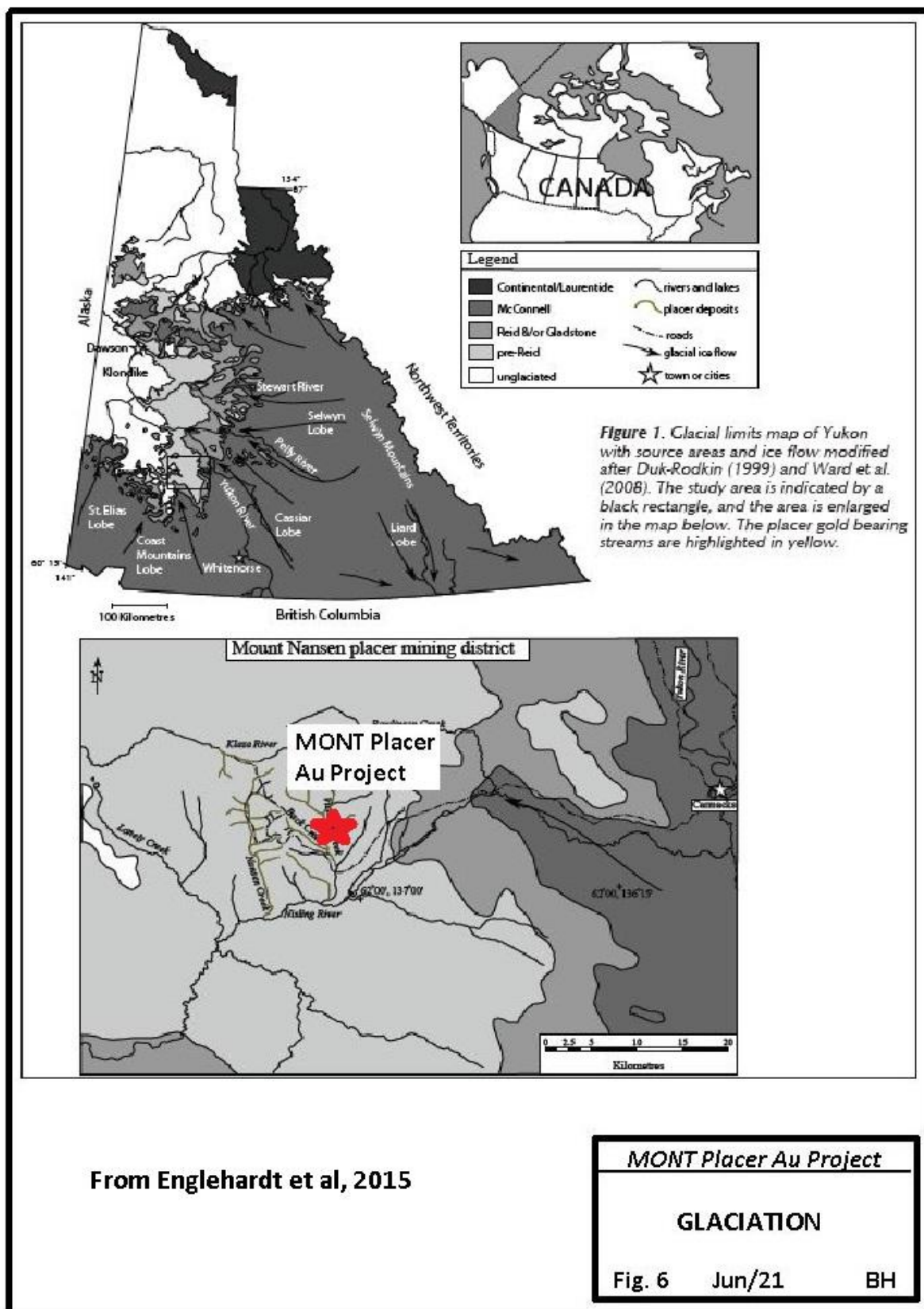
WORK PROGRAM; SUMMER, 2022

A small program of flagged grid installation, elevation surveying, surficial geologic mapping, and sampling was completed over 9 days during the period July 20 - 30, 2022. This work was intended to follow up on the location of an area of gold-bearing fluvial gravels at the bottom of Montgomery Creek valley on the BRI 1 claim during 2021. This work program was completed by William C. Hood, the author of this report, assisted by Donald A. Hood of Vernon, B.C.

Since the initial 2021 work was controlled by a flagged grid installed on 100m spaced UTM lines, this followup grid was installed at 20m UTM coordinates,



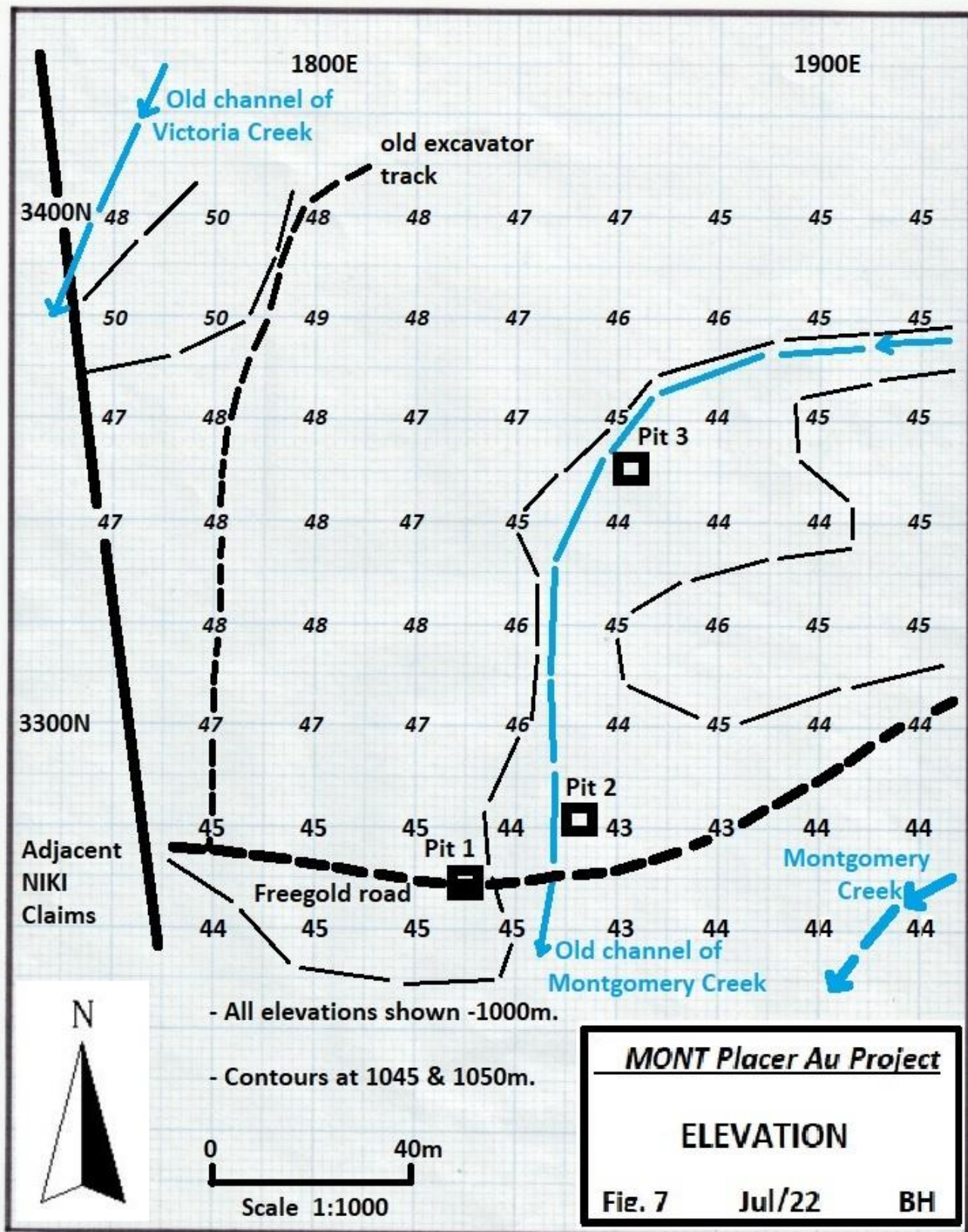


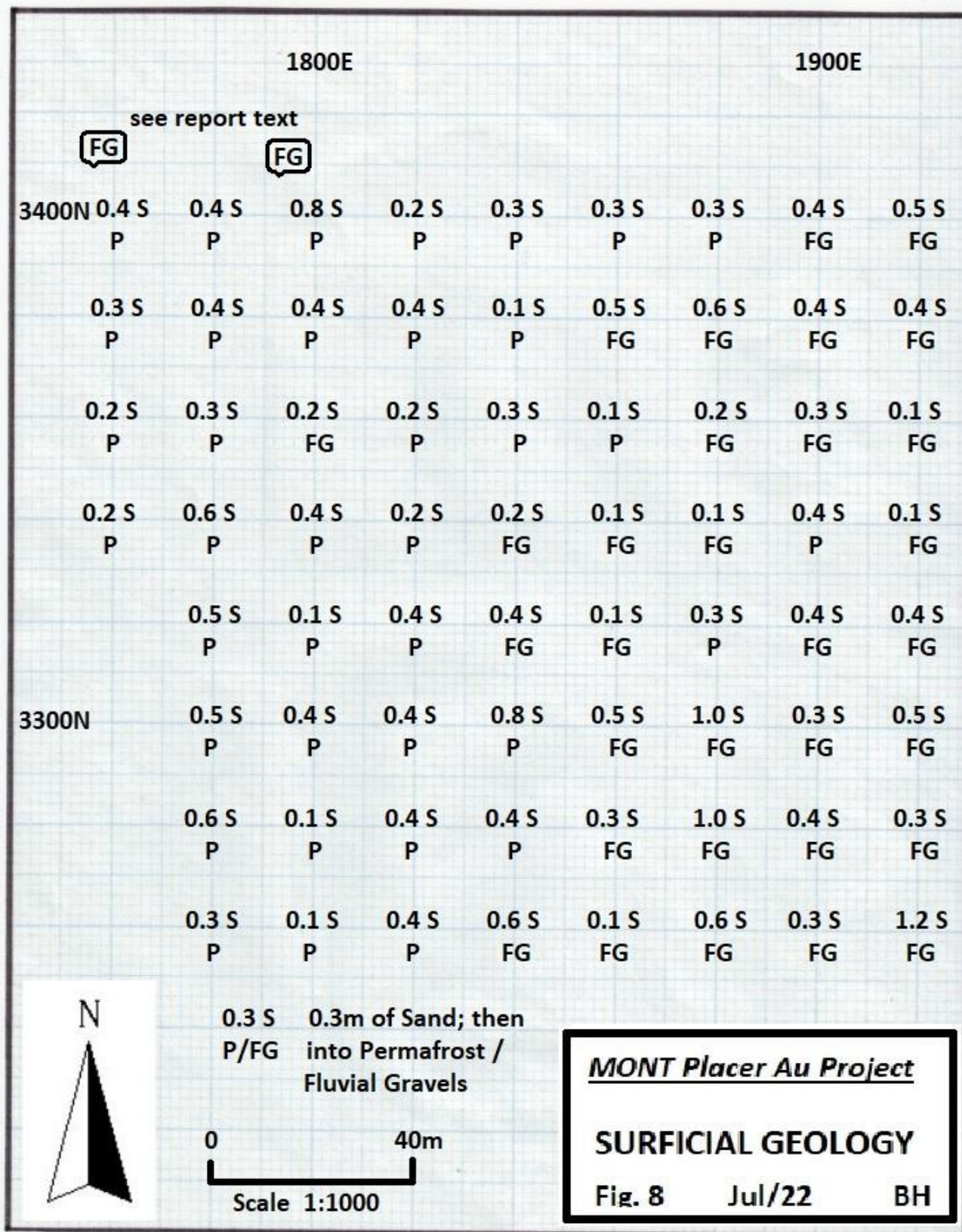


centered on the area where fluvial gravels were previously located. This grid covered the area from 1760E to 1920E, and from 3260N to 3400N. Stations were spaced at 20m square coordinates, with all flags marked with both easting and northing. Grid stations were located by GPS, using a Garmin 64S instrument. Specifications for this instrument indicate 3m accuracy, but where visible over a distance, accuracies appear to be better than 2m. Continuing the grid system used in 2021, stations were numbered with the last four digits of the NAD83, Zone 8, UTM coordinates, so grid easting plus 340,000 equals true UTM easting, while grid northing plus 6,880,000 equals true UTM northing. The grid for this detailed work totalled 1.04 line km.

The area of the 2022 detailed grid is shown on the claim map (Figure 2) and outlined on Figure 7, straddling previous lines 1800 and 1900E. Figure 7 also shows rough contoured elevations, collected by GPS, looped and levelled to an averaged elevation of 1044m at station 1920E/3300N on the Freegold road. The 2022 detailed work area is relatively flat, ranging from 1043m at the southeast corner of the grid near Montgomery Creek, to a high of 1050m at the northwest corner of the grid. A low bog and intermittent small creek curves across the map area from northeast to southwest at an elevation of about 1043 m. This low area is interpreted to be a previous channel of Montgomery Creek, before deposition of overlying sand and relocation of the channel to the south. A low area trending from north-northeast to south-southwest lies immediately northwest of the grid, and is interpreted to be an old channel of Victoria Creek.

Detailed mapping at a scale of 1:1000 was completed to better understand the distribution and depth of these gold-bearing fluvial gravels. Since much of the area had a thin covering (0.1 to 1.0 m) of overlying sand, a hand soil auger was used on a 20 m square grid to identify the surficial materials and determine the depth to the top of the fluvial gravels, which were readily recognized by rounded pebbles of variable lithology (Photo 2, Appendix). This data is plotted on Figure 8. Two areas of exposed fluvial gravels just outside the northwest corner of the grid are also shown on Figure 8. The location of 3 pits which were dug and sampled are plotted on Figure 7.





A total of 64 grid sites were augered, with fluvial gravels encountered in about half the auger holes at shallow depths less than 1 m. Most of the area has an overlying layer from 0.1 to 1 m thick of well-sorted, fine, silt-sand that is tan brown in colour. However, about half the holes encountered permafrost, mainly along the west side of the grid, at shallow depths within the sand before the fluvial gravels could be reached. From this work, fluvial gravels are believed to underlie all of the map area, with minimal overburden. Surface organic material and sphagnum moss ranged from 0.1 to 0.4 m thick, with permafrost more common where sphagnum moss was thicker. Areas of white lichen growth tended to have a thin organic layer, thin or no sand, and fluvial gravels at shallow depth, providing a useful field guide to the subsurface materials.

Three pits, shown on Figure 7, were dug and sampled, to obtain a composite sample that was representative of this area of stream gravels. Approximately 1 cubic yard (50 five-gallon buckets) was screened at ¼ inch with the undersize sluiced. Seven buckets were dug from pit #1, 38 from pit #2, and 5 from pit #3. Most of the sample was from pit #2, which was from the lowest elevation, had the coarsest cobbles-boulders, and appeared to have the best gold (Photo 3, Appendix). These gravels were all clast-supported, with about 70% subangular to well-rounded pebbles, cobbles and boulders, in a matrix of 30% sand to fine gravel. Lithologies were about 60% variable granite, granodiorite and diorite, 30% andesite to basalt volcanic rocks, and 10% assorted schistose lithologies. Sluicing and panning recovered 0.03 grams of gold from 1 cubic yard, mainly specks and fines. This result is well short of economic grades (about 1/3 gram/yard; about 1 oz/100 yard). However, this recovered grade is at less than 1 m depth, and placer miners in the area report that grades increase significantly with depth.

CONCLUSIONS & RECOMMENDATIONS

A small program of flagged grid installation, elevation surveying, surficial geologic mapping and sampling was completed during July, 2022, over an area of gold-

bearing fluvial gravels identified at the bottom of Montgomery Creek. These gravels are interpreted to have been deposited within and adjacent to a previous channel of Montgomery Creek, pre-dating the deposition of a thick unit of sand covering much of the upstream portion of the valley. The mapping work was done with a hand soil auger, due to a thin (0.1 to 1.0 m) layer of sand overlying much of the area. From this work, fluvial gravels are interpreted to underlie an area of at least 160m square, open in all directions, with minimal overburden stripping, but local permafrost. Thick sand deposits overlie these gravels up-valley to the east. A 1 cubic yard sample from pits less than 1 m deep in these fluvial gravels returned 0.03 grams of gold. While substantially less than an economic grade, placer miners in the area report that grades increase significantly with depth.

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William C. Hood, P.Ge.
August 6, 2022

CERTIFICATE

For: William C. Hood, P.Ge.

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1) I am a graduate of the University of Manitoba (1979) with a B.Sc. (Honours) Degree in Science (Geology) and I have practiced my profession since that time.

2) I am a Registered Professional Geoscientist with the Association of Professional Engineers and Geoscientists of Manitoba since 1982.

3) I have been employed by Tantalum Mining Corporation (1979-1983), Province of Manitoba Departments of Labour (1992 – 1995) & Energy and Mines (1995 - 1997), and ProAm Exploration Corporation (1997 – 2000), as well as operating my own business as W.C. Hood, Consulting Geologist (1983 – 1992 & 2000 – present).

4) I have researched, conducted and supervised a wide range of exploration programs for hydrothermal and placer gold, volcanogenic copper-zinc, magmatic nickel-copper-PGE, pegmatitic tantalum-lithium-caesium, kimberlitic diamonds and various industrial mineral commodities.



William C. Hood, P.Ge.

August 6, 2022

APPENDIX – PHOTOGRAPHS



Photo 1. Looking south at camp on the Nansen/Klaza road about 1 km west of the Mt. Nansen mine.



Photo 2. Looking north at W. Hood auguring through sand at surface to determine depth to underlying fluvial gravels at 1780E/3320N.



Photo 3. Looking southwest at W. Hood examining fluvial gravels from water-filled pit #2 at 1850E/3282N.