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

Field Work & Report by:
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Property Holder:
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Beausejour, Manitoba R0E0C0

Field Work June 15 – July 20; 2021
Report Completed December 31, 2021

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Summary of Reported Work:

Geographic Area: NTS 115-I-03P, Mt.Nansen, 137.06°W,62.07°N,Whitehorse M.D.
Mineral Dispositions: P513343 (BRI 1), Placer Lease IW00749
Target Commodity: placer gold
GPS Flagged Grid: 4.6 line km, 100m line spacing, 20m station spacing
Surficial Geologic Mapping: 4.6 line km, 1:2000 scale
Ground VLF-EM Survey: 4.6 line km, 100m line spacing, 10m station spacing
Ground TF Mag Survey: 4.6 line km, 100m line spacing, 10m station spacing
Samples: 11 samples screened & panned
Report Software: Microsoft Office Word, Excel, Paint

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TABLE OF CONTENTS

LIST OF FIGURES

SUMMARY

This report describes the results of a program of flagged grid installation, surficial geological mapping, magnetic and VLF-EM surveying, and sampling over one placer mining claim and a one-mile prospecting lease on Montgomery Creek (MONT project) in the Mt. Nansen area of the Yukon. The claim and prospecting lease were staked in August, 2020, by the author to cover ground believed prospective for placer gold. A preliminary report dated July 4, 2021, was submitted for representation work covering the first half of the summer, 2021, work project. This report describes the balance of the work program, and incorporates the initial work and results described in the preliminary July 4, 2021 report.

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.

A program of flagged grid installation, mapping and sampling of surficial materials, magnetic surveying and VLF-EM surveying was completed over the lower portion of Montgomery Creek during June and July, 2021. This section of the creek was subjected to previous placer exploration, as evidenced by local stripping, pits and muck piles. Mapping determined that most of the area was overlain by a thick sand deposit, as is common in many creeks in the Mt. Nansen district. However, a fluvial gravel unit that may be prospective for placer gold was located in the lower area of the claims, possibly a deposit of Victoria Creek. This gravel is visually similar to mid-level gravels in nearby Back Creek and Nansen Creek that host significant gold content.

The magnetic survey was intended to search for concentrations of magnetite along Montgomery Creek, hopefully associated with gold, but instead delineated a weak magnetic low along the creek. This is believed to be caused by erosional removal of the fine magnetite-bearing sands along the recent creek valley that is incised into the sand. The rusty water and gravels in Montgomery Creek are believed to be due to this magnetite content in the sand lithology. The VLF-EM survey outlined a weak electromagnetic conductor roughly paralleling Montgomery Creek, but diverging to both the north and south side of the creek, suggesting the possible presence of an older meandering creek trend in the subsurface, under the surficial sand deposit.

Sampling and panning located minor gold specks in both the modern stream gravels of Montgomery Creek and the older fluvial gravels at the bottom of the creek in Victoria Creek valley. An eight bucket sample (~40 gallons; 1/6 cubic yard) was tested from sample site MONT21-GR-4 in the fluvial gravels, which showed the coarsest gold flakes in initial sampling. This sample returned 11 nice specks of gold plus about 20 small specks.

Additional work is recommended to evaluate the placer gold potential of the Montgomery Creek valley. Further sampling, with larger volumes, needs to be done on the fluvial gravels (FG unit) on the BRI 1 claim. Ultimately, drilling or deeper backhoe sampling will be needed to evaluate the deeper placer gold potential in this creek.

William C. Hood, P.Geo.
December 31, 2021

INTRODUCTION

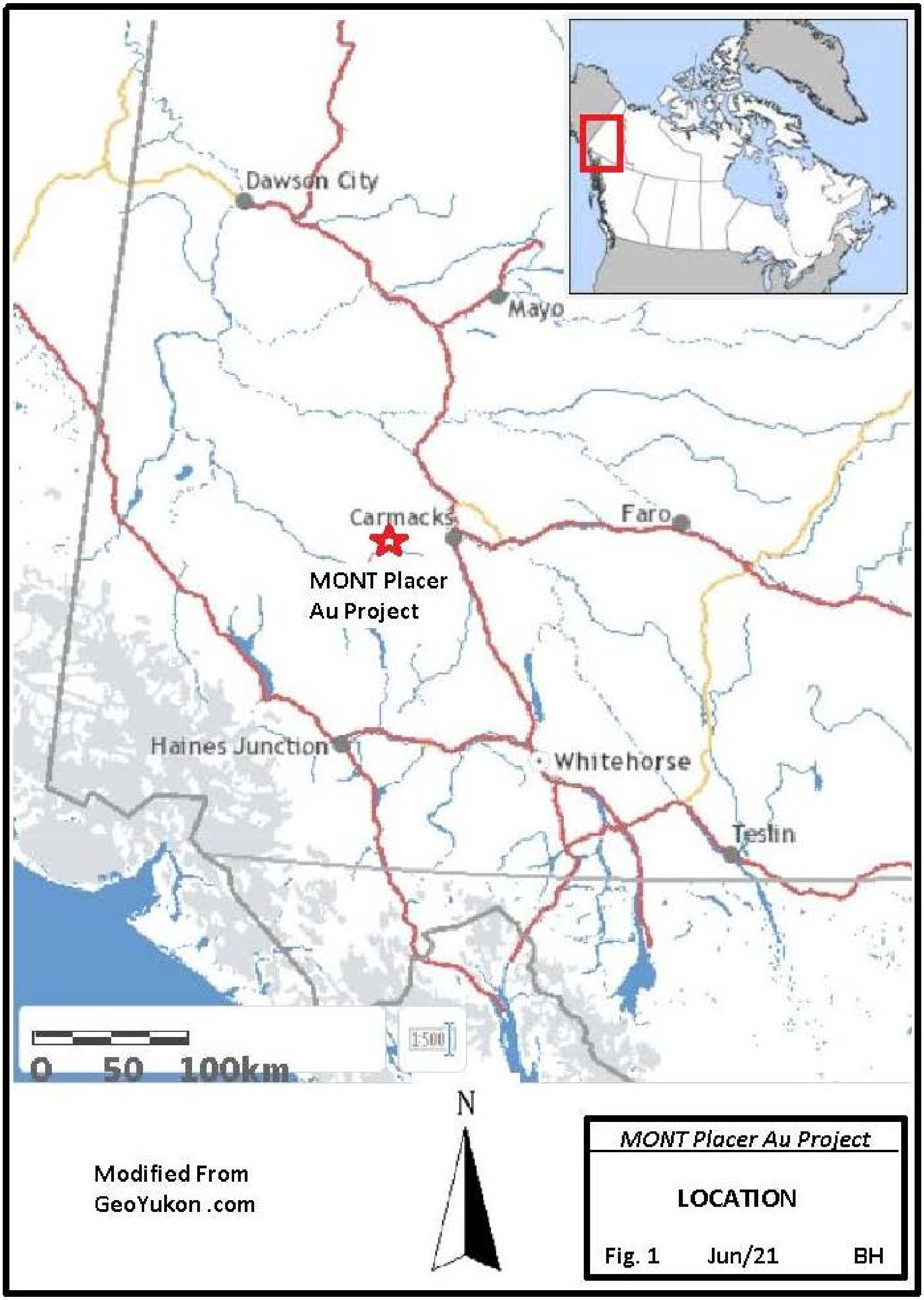
This report describes the results of a program of flagged grid installation, surficial geological mapping, magnetic and VLF-EM surveying, and sampling over one placer mining claim and a one-mile prospecting lease on Montgomery Creek (MONT project) in the Mt. Nansen area of the Yukon. The claim and prospecting lease were staked in August, 2020, by the author to cover ground believed prospective for placer gold. A preliminary report dated July 4, 2021, was submitted for representation work covering the first half of the summer, 2021, work project. This report describes the balance of the work program and incorporates the initial work and results described in the preliminary July 4, 2021 report.

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 and geophysical data for future drilling and/or backhoe sampling.

LOCATION, ACCESS & PHYSIOGRAPHY

The MONT property is situated in southwestern Yukon, about 170 km northwest of Whitehorse, and 40 km due west of Carmacks (Fig. 1). The property is 3 km northeast of the Mt. Nansen mine, which is presently undergoing site



MONT Placer Au Project

LOCATION

Fig. 1 Jun/21 BH

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 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 northeast corner of the MONT project claims. Camp location for this project was on Back Creek, at the intersection of the Back Creek placer mine road and the Freegold road (Photo #1, Appendix II).

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. Elevations within the work area ranged from a low of 1055m at the southwest end of the work area in the bottom of the valley to a high of 1137m along the north side of the work area. Map I (back pocket) shows the general physiography of the work area, with contoured elevations, as well as the creeks, the placer claim location line and Freegold road/ATV trail. A prominent, 10m high scarp extends north-south across the bottom of the valley at roughly the 1060m contour, extending up the Montgomery Creek and Creek #1 valleys (see Photo #2, Appendix II).

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. Swampy areas are present where Creek #2 enters Montgomery Creek, and at the southwest end of the work area where Montgomery Creek enters the Victoria Creek valley and splits into a series of small braided channels.

CLAIM STATUS

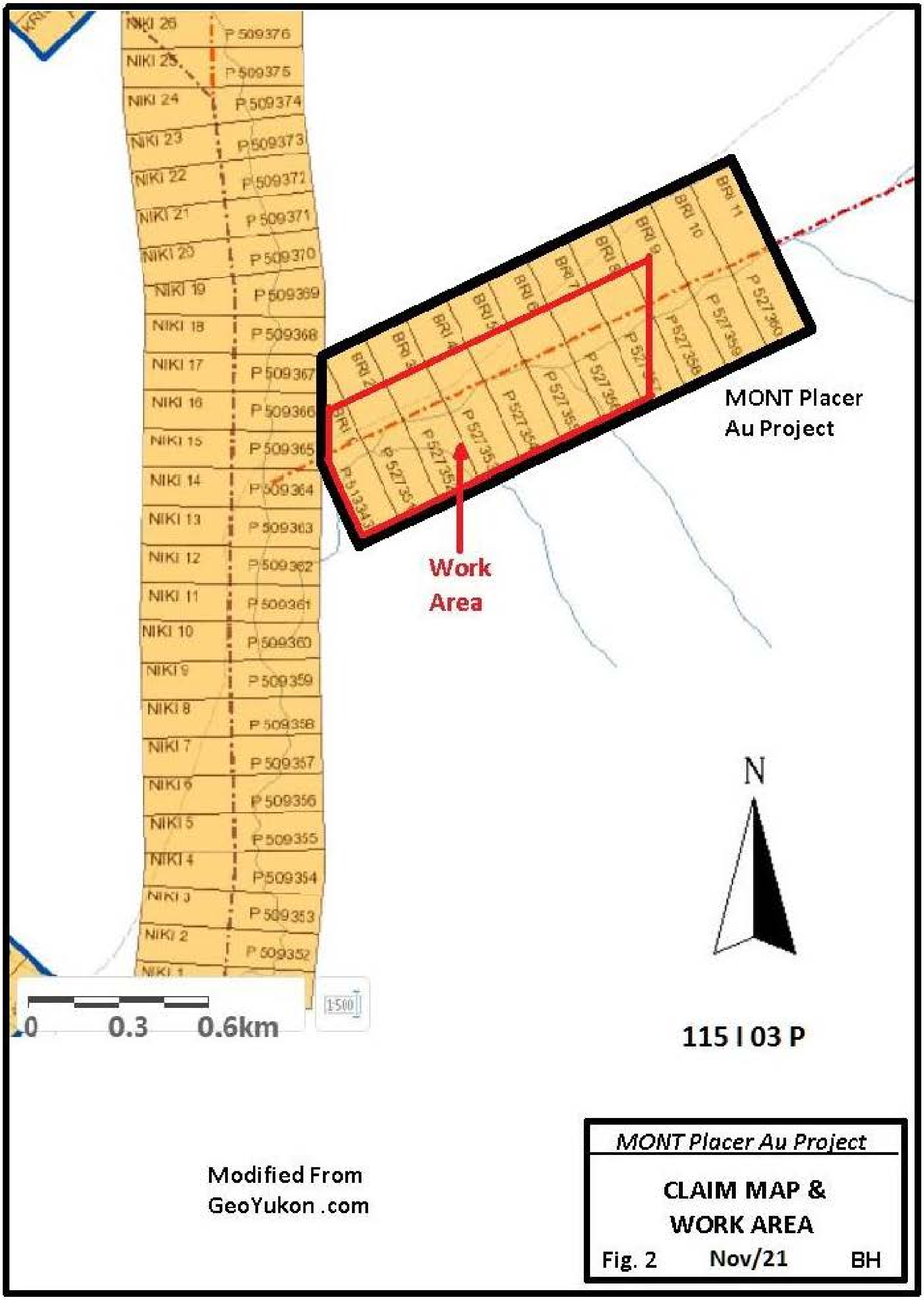
The Montgomery Creek placer gold property (MONT Project) was initially staked in August, 2020, as a single claim at the bottom of the valley, BRI 1, P513343, and a one-mile prospecting lease above that, IW00749. Following filing and acceptance of a preliminary work report on the initial phase of the 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, 2023. 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



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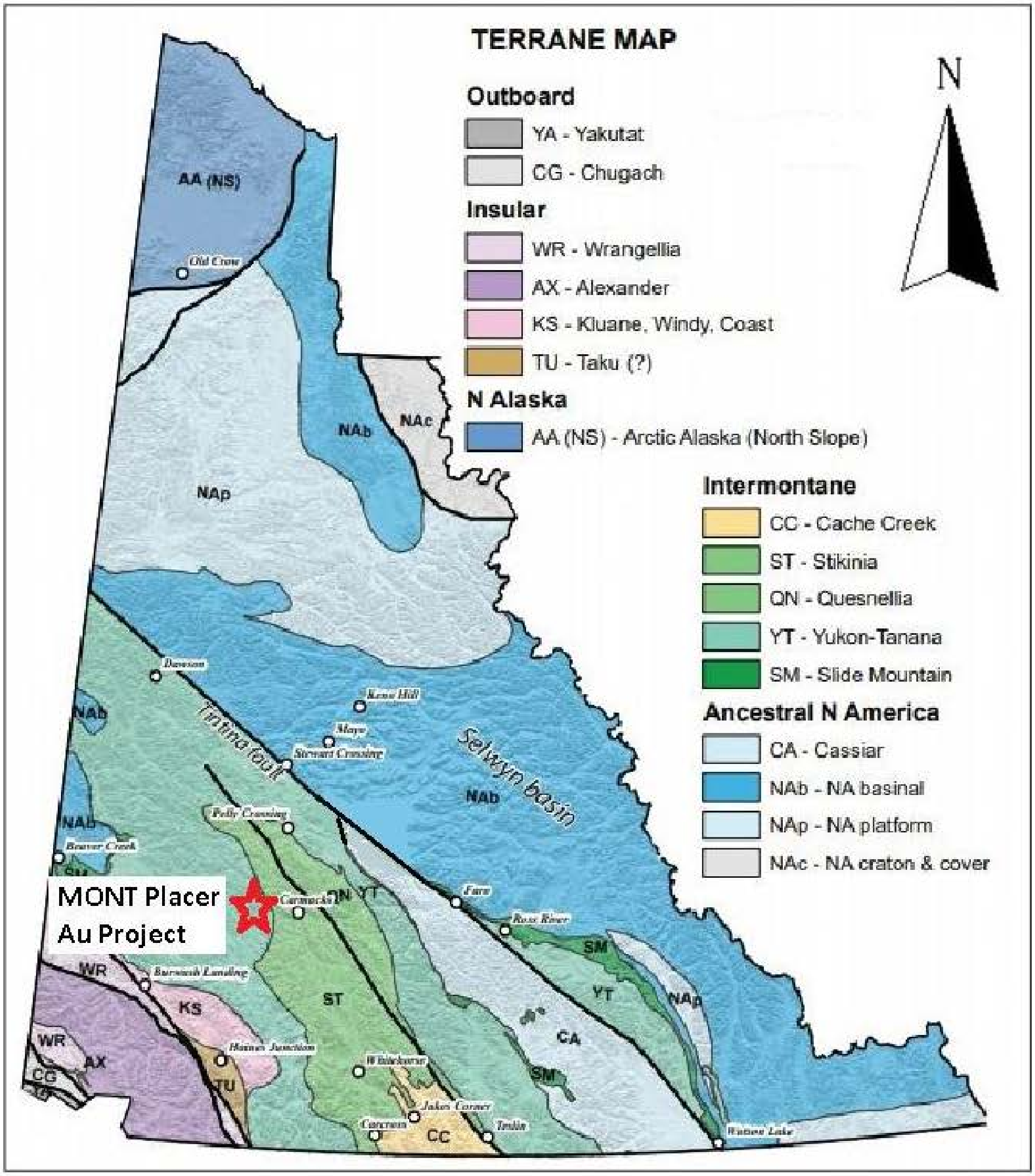
CLAIM MAP & WORK AREA

Fig. 2 Nov/21 BH



Modified from
Colpron & Nelson,
2011

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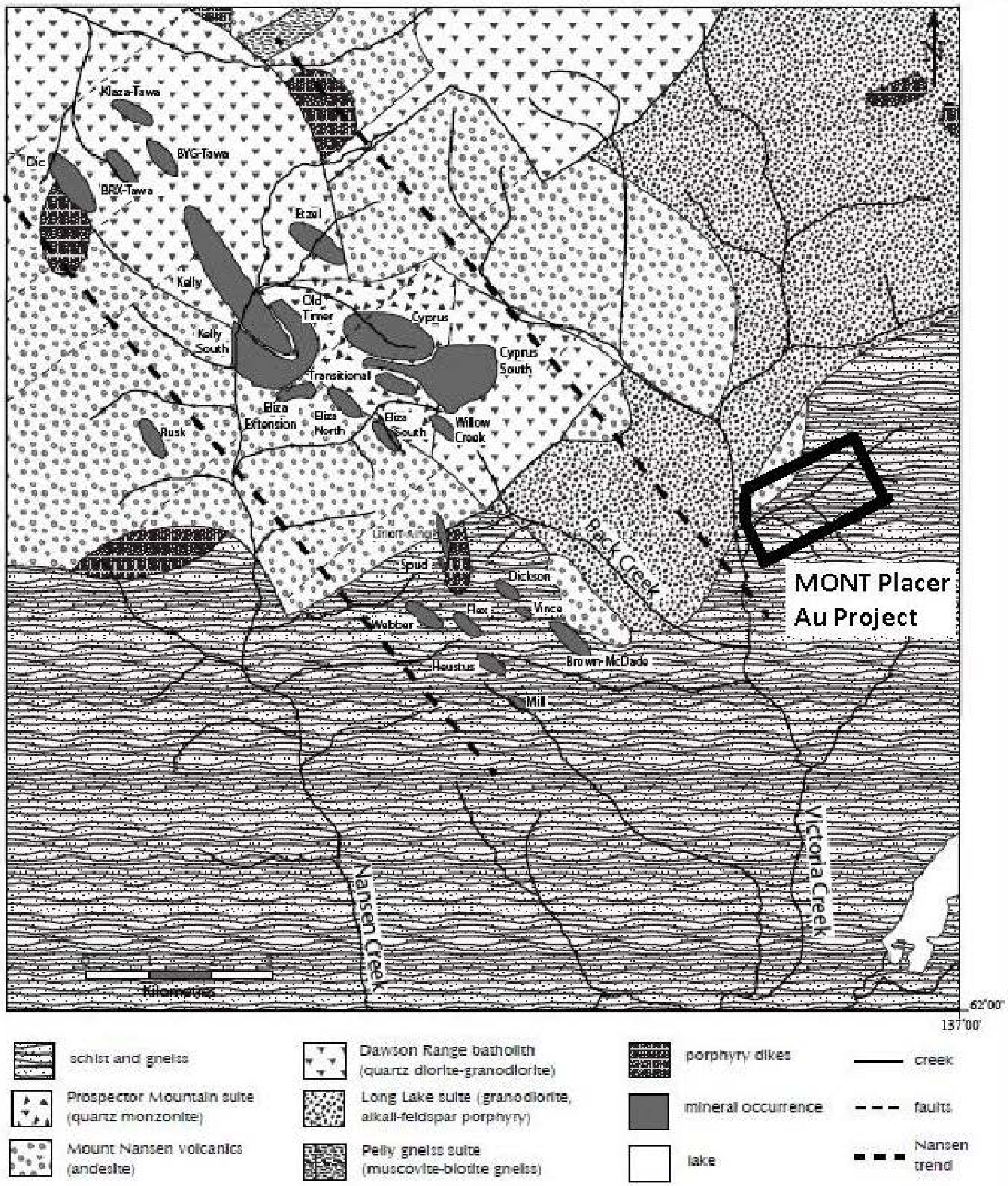
YUKON GEOLOGY

Fig. 3 Jun/21 BH



From Englehardt et al, 2015, as modified from Hart & Langdon, 1998

MONT Placer Au Project		
MT. NANSEN GEOLOGY		
Fig. 4	Jun/21	BH

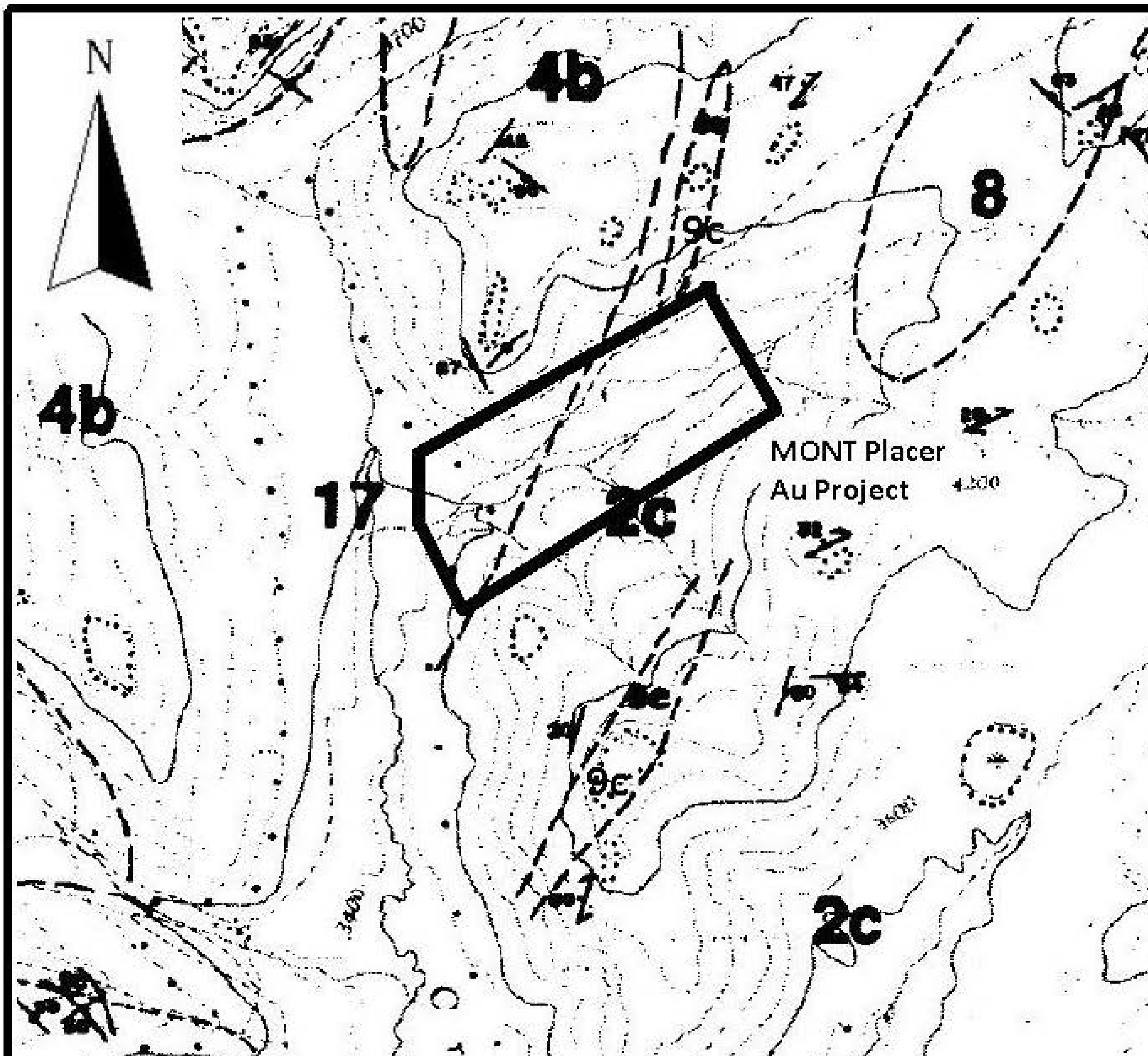
northwest. Late porphyry dikes, associated with gold-bearing veins, are believed to intrude parallel to this contact, and may extend across the Montgomery Creek valley (Fig. 5). The Ang vein, south of Montgomery Creek, the Wind occurrence near the headwaters of Montgomery Creek, as well as the high-grade 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.

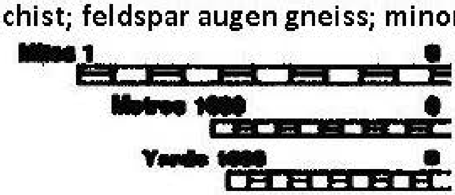
WORK PROGRAM; SUMMER, 2021

A program of flagged grid installation, surficial geologic mapping, magnetic surveying, VLF-EM surveying and sampling was completed between June 15 and July 20, 2021. A preliminary report dated July 4, 2021, was submitted for representation work covering the first half of the summer, 2021, work project. This report describes the balance of the work program and incorporates the initial work and results described in the preliminary July 4, 2021 report. Work was focused on the lower nine claims of Montgomery Creek where stripping, pits and muck piles provided evidence of previous interest in the placer gold potential of this creek. This work program was completed by William C. Hood, the author of this report, assisted by Donald A. Hood of Vernon, B.C.

A flagged grid was installed over portions of placer claims BRI 1 to 9 to provide control for subsequent work. Lines were spaced at 100m with stations marked at 20m intervals along lines. Grid stations were located by GPS, using a Garmin 64S



17 Quaternary: unconsolodated alluvium
9c Cretaceous to Paleocene; Mt. Nansen Ste; quarts-feldspar peophyry dikes, white wx, pyritic
8c Cretaceous to Paleocene; Bow Ck Granite; pink wx dikes & border phases; quartz-feldspar porphyritic
4b Early Jurassic; Mt Freegold meta-plutonic ste; plagioclese-hornblende monzonite
2c Paleozoic; schist & gneiss; biotite-quartz-feldspar schist; feldspar augen gneiss; minor amphibolite



From G.G. Carlson, Open File 1987-2

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PROPERTY GEOLOGY

Fig. 5 Jun/21 BH

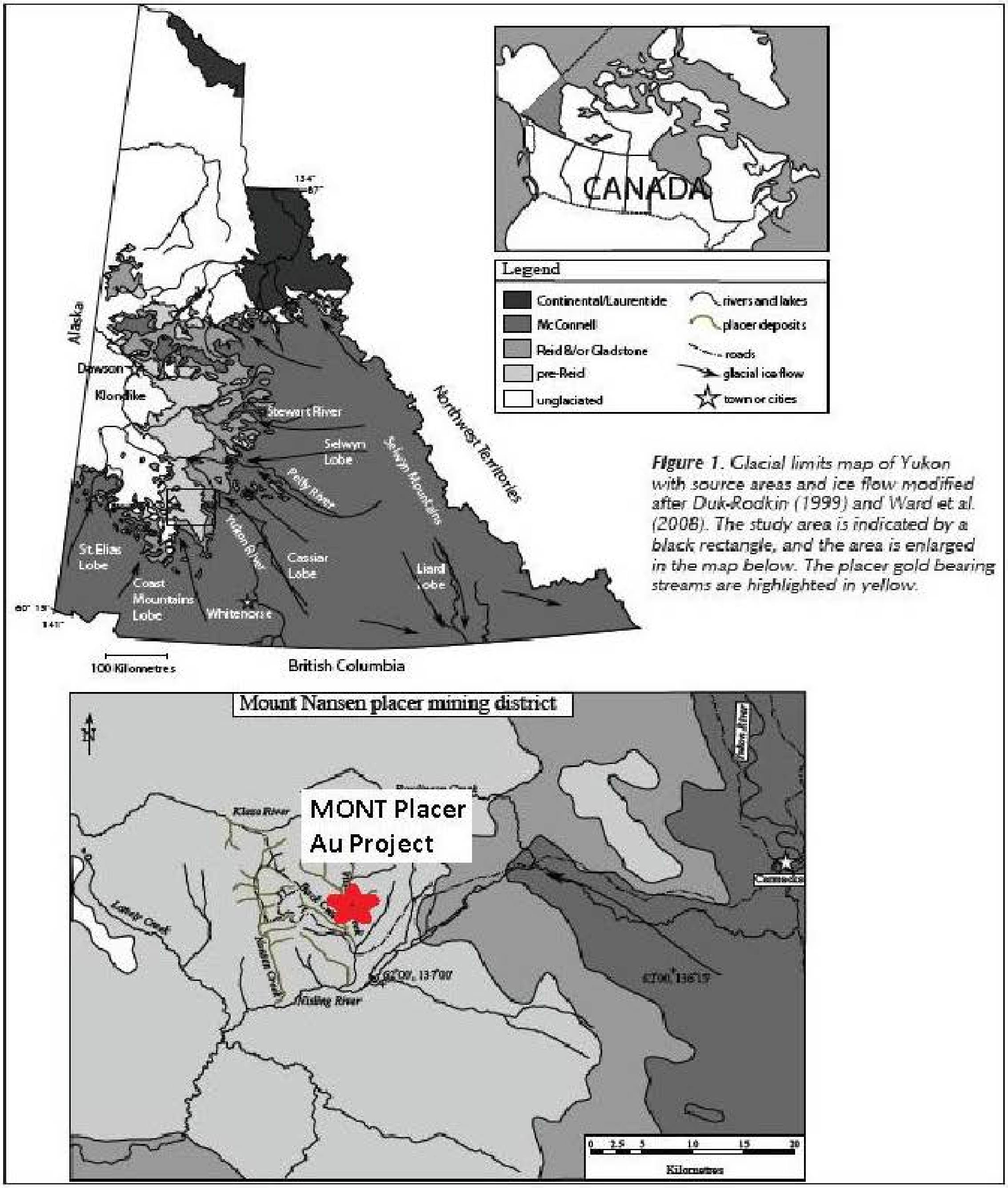

Figure 1. Glacial limits map of Yukon with source areas and ice flow modified after Duk-Rodkin (1999) and Ward et al. (2008). The study area is indicated by a black rectangle, and the area is enlarged in the map below. The placer gold bearing streams are highlighted in yellow.

From Englehardt et al, 2015

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GLACIATION

Fig. 6 Jun/21 BH

instrument. Specifications for this instrument indicate 3m accuracy, but where visible over a distance, accuracies appear to be better than 2m. Lines were run north-south on UTM coordinates, with lines mostly 400m long. Lines and 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. Stations at 20m marks were flagged with pink flagging, with northing coordinate marked, while stations at 100m locations were marked with line number and northing, and were done with orange flagging. Locations for readings taken at 10m points were estimated between flagged stations.

The grid for this phase of the work totalled 4.6 line km. Lines were run from 1800E to 2900E. Lines 1900 and 2000E were run from 3000N to 3400N, while line 1800E, the first line in the BRI 1 claim, was only 200m long, from 3200N to 3400N, due to the orientation of the claim. Lines 2100, 2200 and 2300E were offset by 200m to the north, running from 3200N to 3600N, in order to stay roughly centered on the prospective area of the valley. Lines 2400E through 2900E were offset a further 200 m to the north, running from 3400N to 3800N.

Detailed mapping of the surficial materials was completed by the author at a scale of 1:2000. Detailed magnetic and VLF electromagnetic surveys were completed by the author using instruments owned by the author. The objective was to characterize the surficial materials, determine whether the prospective area of Montgomery Creek had any distinctive geophysical characteristics, and attempt to project those signatures into other overburden covered areas. In the course of this work, any prospective gravels would be sampled, screened and panned/sluiced. Sample descriptions and field notes from the mapping are included in Appendix I. Several photographs are in Appendix II. Specifications on the geophysical instruments are in Appendix III.

The total field magnetic survey was completed using a Geometrics G-856 proton precession magnetometer. All field readings were looped from a base station location at L2000E/3400N. All data was leveled relative to this point, which averaged at 56,367 nT, in direct proportion to elapsed time. Minimal solar activity and variations in the geomagnetic field were noted on survey days. The maximum drift within a loop was 14 nT. Data error is expected to fall within a plus/minus 5 nT bracket, which is adequate for this survey.

The VLF electromagnetic survey was completed using a Geonics EM-16 instrument tuned to NPM, Hawaii, 21.4 kHz. Although not optimum in terms of field orientation, NPM had the best combination of signal strength, null clarity and field orientation of the available stations. All VLF readings were taken facing northwest, with south-to-north, plus-to-minus (or sometimes more negative) in-phase crossovers marking conductive locations.

Results for surficial geologic mapping are shown on Map II (back pocket). Organic material, mainly brown sphagnum moss and black humus, typically about 10 cm thick but thicker along creeks and low flat areas, is ignored in this mapping. It is noteworthy that thick black humus deposits, locally >30 cm, occur locally along the north part of lines 2500E and 2600E, as well as the south part of line 2900E. Also ignored in this mapping is the ubiquitous white to grey coloured White River tephra deposit, typically 5 to 10 cm thick, immediately underlying the surface organic layer.

Most of the MONT project work area within Montgomery Creek valley is underlain by a well sorted sand deposit, shown as unit SAN on Map II, Surficial Geology (back pocket). This unit terminates quite abruptly to the west in a scarp that extends across the bottom of Montgomery Creek valley near line 1900E, separating low ground along Victoria Creek from higher ground up Montgomery Creek valley. This sand unit is locally more than 10 m thick as can be seen in Photo #2, Appendix II. It is possible that this sand unit was deposited as a late glacial outwash deposit against remnant valley glacier ice in Victoria Creek, resulting in this scarp at the west edge of the SAN unit. Montgomery Creek and its tributaries, shown as Creek #1 and Creek #2, have incised small valleys into this sand unit.

This sand lithology is light tan-brown colour on dry surface, and brown on wet surface. The top 10 to 20 cm of this sand lithology is commonly altered with a light yellowish-brown limonitic oxidation that is locally overlain by thin layer of red-brown hematitic oxidation (see Photo #3, Appendix II). This sand deposit tends to fine upward, which is noticeable by the transition to silt size along the north boundary of the unit. This sand contains from 5% to 30% clasts, ranging from pebbles to cobbles, generally increasing in amount with depth. Clast lithologies are mixed, ranging from granite, granodiorite and porphyry, to diorite-gabbro, and schistose clasts which range from yellowish-brown sericite schist to black biotite-amphibole schist. Schistose clasts are more abundant on the south side of the valley, probably derived from older basement rocks to the southeast, while granite and diorite lithologies are more abundant on the north side of the valley, derived from younger intrusive rocks to the northwest. These clasts within the SAN unit are dominantly angular to subangular, but minor rounded clasts are found also. An interesting feature of this sand unit is that it appears to contain significant fine magnetite, which probably explains the rusty nature of the water and gravels along Montgomery Creek, as well as the local streaks of black magnetite in the stream gravels.

Colluvium (unit COL) was noted in three areas at the north and south margins of the work area, at higher elevations along valley slopes. This lithology is brown coloured, with typically about 30% angular clasts, generally homogeneous lithology, in a variable clay-silt-sand matrix. The transition from light tan-brown sand at lower elevations into brown colluvium at higher elevations is particularly obvious along the Freegold road between lines 2300E and 2400E. Pebble/cobble clasts in colluvium along the south side of the valley are almost entirely schist, while along the north side of the valley they are mainly granite and diorite.

Modern stream gravels and finer sediments (unit MSS) are present within the bottom of the incised valleys of Montgomery Creek, Creek #1 and Creek #2. These gravels are generally coated with rust. The lower sections of these creek channels are typically filled with pebble to cobble sized subrounded to angular clasts, with clay-silt-sand overflow material adjacent to the channels in the narrow flat creek bottoms (see Photo #4, Appendix II). The upper portions of these creeks are mainly silt-sand-pebble gravels. In the braided channels of lower Montgomery Creek on lines 1800 and 1900E only silt-sand-pebble gravels are present. Angular boulders are locally present along the Montgomery Creek channel between lines 2000E and 2500E (see Photos #5 & 6, Appendix II). It is also possible that this section of angular cobbles and boulders reflects nearby bedrock. The unit MSS gravels and sediments along the creeks appear to be formed as a “lag” deposit from the coarser fraction of the sand unit (SAN), where the finer sands have been washed downstream into Victoria Creek valley along the incised creek valleys in the SAN unit.

Clast lithologies in the MSS unit roughly match those in the sand (SAN) unit from which these sediments are derived, with about half being granite, granodiorite and porphyry, while the other half tend to be more angular clasts of schist and diorite. Minor white quartz pebbles and cobbles were also noted. Clasts of andesite-basalt start to appear in the lower part of Montgomery Creek, with a probable Victoria Creek provenance, but are not present higher on Montgomery Creek.

An area of rounded fluvial gravels (unit FG) was found in the low ground at the north ends of lines 1800E and 1900E on the BRI 1 claim. At 1854E/3272N, just north of the Freegold road, these fluvial gravels were found to be overlain by about 30 cm of sand (SAN unit), clearly indicating that they are an older deposit (Photo #7, Appendix II). These gravels are brown coloured and clast supported, with about 60% pebbles, cobbles and minor boulders, with 40% sand. These clasts are about 60% granite, granodiorite and aplite, with 40% fine-grained dark andesite/basalt. This fluvial gravel unit is clearly different from the Montgomery Creek clast lithologies, and is believed to be a Victoria Creek deposit, perhaps from a old cut-off meander. Of interest is that these gravels are visually identical to mid-level gravels on nearby Back Creek and Nansen Creek which host significant gold values.

Contoured total field magnetic survey results are shown on Map 3, (back pocket). A photograph from this work is Photo #8, Appendix II. Magnetic readings in this work area were very flat, falling within a 242 nT range, from 56,294 nT to 56,536 nT. A general increase in magnetic response was noted up the valley with the highest magnetic reading on line 2900E at the east end of the work area. Ironically, one of the premises of using this survey in this work, was that magnetite, associated with gold, might be detected in concentrations along creeks. However, results from the Montgomery Creek work area appear to show the opposite, with a low magnetic response, especially along Montgomery Creek and Creek #1. The lowest magnetic reading of the survey, 56,294 nT, was found on Montgomery Creek on line 2100E. This result is believed to be due to the fact that the creeks have incised small valleys into the overlying SAN unit, removing a volume of the fine magnetite-bearing sands, lowering the magnetic field intensity over these creeks.

As with the magnetic survey, the VLF-EM survey returned relatively flat results, indicating a lack of significantly conductive rocks or surficial materials in the subsurface (Map 4, back pocket). However, a series of weak conductors, shown as conductors A, B and C, trend roughly along Montgomery Creek. It is interesting to note that these conductors are offset from the present channel of Montgomery Creek, suggesting the possibility of a different, subsurface meandering channel, underneath the SAN sand unit. A fairly strong conductor, marked as conductor D, has been interpreted between lines 1800E and 1900E. This conductor corresponds with an area of swampy ground and is believed to be caused by conductive clay overburden. A weak conductor, marked as conductor E, is believed to be a previous channel of Creek #1. A photograph from this work is Photo #9, Appendix II.

A total of 11 sites were sampled for placer gold, six in modern stream gravels, unit MSS along Montgomery Creek, and five within the fluvial gravel lithology, FG, located at the north ends of line 1800E and 1900E. Sample descriptions are included in Appendix I, and sample locations are plotted on Map II, Surficial Geology (back pocket). Samples varied in size from about one gallon to 5 gallons, and all were screened, with the -0.25” fraction panned for gold. It is interesting to note the profound difference between samples collected along Montgomery Creek and the samples collected from the FG fluvial gravel unit, shown in Photo #10, Appendix II. The Montgomery Creek samples are angular and rusty, while the unit FG fluvial gravels, believed to be a Victoria Creek deposit, are rounded and non-rusty. Gold specks were recovered from about half the samples in both lithologies, typically between one and three specks. However, the coarsest gold specks were recovered from samples in the FG fluvial gravel unit. As a result, a larger sample of about eight buckets (~40 gallons; ~1/6 cubic yard) was taken at sample site MONT21-GR-4 (see Photo #7, Appendix II). A total of 11 nice gold specks plus about 20 small specks were recovered from sample MONT21-GR-4.

CONCLUSIONS & RECOMMENDATIONS

A program of flagged grid installation, mapping and sampling of surficial materials, magnetic surveying and VLF-EM surveying was completed over the lower portion of Montgomery Creek during June and July, 2021. This section of the creek was subjected to previous placer exploration, as evidenced by local stripping, pits and muck piles. Mapping determined that most of the area was overlain by a thick sand deposit, as is common in many creeks in the Mt. Nansen district. However, a fluvial gravel unit that may be prospective for placer gold was located in the lower area of the claims, possibly a deposit of Victoria Creek. This gravel is visually similar to mid-level gravels in nearby Back Creek and Nansen Creek that host significant gold content.

The magnetic survey was intended to search for concentrations of magnetite along Montgomery Creek, hopefully associated with gold, but instead delineated a weak magnetic low along the creek. This is believed to be caused by erosional removal of the fine magnetite-bearing sands along the recent creek valley that is incised into the sand. The rusty water and gravels in Montgomery Creek are believed to be due to this magnetite content in the sand lithology. The VLF-EM survey outlined a weak electromagnetic conductor roughly paralleling Montgomery Creek, but diverging to both the north and south side of the creek, suggesting the possible presence of an older meandering creek trend in the subsurface, under the surficial sand deposit.

Sampling and panning located minor gold specks in both the modern stream gravels of Montgomery Creek and the older fluvial gravels at the bottom of the creek in Victoria Creek valley. An eight bucket sample (~40 gallons; ~1/6 cubic yard) was tested from sample site MONT21-GR-4 in the fluvial gravels, which showed the coarsest gold flakes in initial sampling. This sample returned 11 nice specks of gold plus about 20 small specks.

Additional work is recommended to evaluate the placer gold potential of the Montgomery Creek valley. Further sampling, with larger volumes, needs to be done on the fluvial gravels (FG unit) on the BRI 1 claim. Ultimately, drilling or deeper backhoe sampling will be needed to evaluate the deeper placer gold potential in this creek.

William C. Hood, P.Geo.
December 31, 2021

CERTIFICATE

For: William C. Hood, P.Geo.
P.O. Box 1722; 508 Elm Ave.
Beausejour, Manitoba
Canada R0E0C0
(204)268-3455
bhood@mts.net

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 gold, volcanogenic copper-zinc, magmatic nickel-copper-PGE, pegmatitic tantalum-lithium-cesium, kimberlitic diamonds and various industrial mineral commodities.

William C. Hood, P.Geo.
December 31, 2021

APPENDIX I
SAMPLE DESCRIPTIONS & FIELD NOTES

SAMPLES:

MONT21-GR-1: 1865E/3350N; probable fluvial stream gravel; brown gravels; subrounded; sand to cobble size; 60% granite/granodiorite, 40% fine-grained andesite/basalt, minor diorite; collected 2.5 gallon sample; screened to about 0.5 gallon of -0.25"; panned – no gold.
MONT21-GR-2: 1933E/3272N; modern stream gravels in Montgomery Ck near #2 post of BRI 1 & #1 post of prospecting lease; rusty brown gravels; mostly subangular; silt-sand to cobble size; 70% granite/granodiorite, 30% schist; minor diorite; collected 4.5 gallon sample; screened to about 1 gallon of 0.25"; panned – 3 small specks.
MONT21-GR-3: 1790E/3405N; probable fluvial stream gravel; brown gravels; subrounded; 60% granite/granodiorite, 40% fine-grained andesite-basalt, minor diorite; collected 5 gallon sample; screened to about 1 gallon of -0.25"; panned – 2 specks gold.
MONT21-GR-4: 1854E/3272N; fluvial stream gravel under about 30 cm of fine sand; brown gravels; subrounded to rounded; sand to boulder size; clast supported with about 25% sand, 40% pebble-cobble & 35% rounded boulders; collected 4 gallon sample; screened to about 1 gallon of -0.25"; panned – 2 nice specks gold.

A second larger sample of 8 buckets (~40 gallons; ~1/6 cubic yard) was collected at this location & screened to -0.25" & panned, recovering 11 nice specks & ~20 small specks gold.

MONT21-GR-5: 1805E/3355N; fluvial stream gravel under 10 cm fine sand; brown gravels; subrounded; clast supported with sandy matrix; 25% sand & 75% pebbles-cobbles; clasts are 60% granite, 40% basalt & minor schist; collected 2.5 gallon sample; screened to about 0.5 gallon of -0.25"; panned – no gold.
MONT21-GR-6: ~2275E/3495N; modern stream gravels in Montgomery Creek; very rusty gravels; mix of silt, sand, pebbles & angular cobbles; clasts are 50%

granite-granodiorite, 30% mafic schist, 10% felsic schist & 5% diorite-gabbro; collected 2.5 gallon sample; screened to about 0.5 gallon of -0.25”; panned – no gold.

MONT21-GR-7: ~1935E/3315N; sample taken from top of pit muck pile; mostly subangular so probably modern stream gravels of Montgomery Creek; very rusty gravels; about 60% silt-sand & 40% pebbles-cobbles; clasts are 60% granite-granodiorite, 20% andesite-basalt, 15% assorted felsic to mafic schist, 5% diorite & minor quartz; collected 2.5 gallon sample; screened to about 0.5 gallon of -0.25”; panned – 3 specks gold.

MONT21-GR-8: ~2280E/3560N; modern stream gravels from dry secondary channel just south of Montgomery Creek which might be original channel before backhoe work along present channel; slightly rusty; ~40% silt-sand % 60% mainly subangular pebbles; clasts are 50% granite-granodiorite & 50% schist ranging from felsic to mafic; collected 2.5 gallon sample; screened to about 0.5 gallon of -0.25”; panned – 4 small specks gold.

MONT21-GR-9: 2390E/3560N; modern stream gravels from just below small waterfall in Montgomery Creek; rusty brown gravels; ~40% silt-sand % 60% mainly subangular pebbles; clasts are 50% granite-granodiorite, 50% schist ranging from felsic to mafic & minor quartz; collected 2.5 gallon sample; screened to about 0.5 gallon of -0.25”; panned – no gold.

MONT21-GR-10: 1848E/3287N; fluvial stream gravels from low area along dry intermittent small creek; clast supported brown gravel; 60% pebbles-cobbles-boulders & 40% sand; clasts are about 50% granite, 50% basalt & minor quartz pebbles; collected 2.5 gallon sample; screened to about 0.5 gallon of -0.25”; panned – no gold.

MONT21-GR-11: ~1930E/3290N; modern stream gravels from Creek #1 about 5m upstream from where it joins Montgomery Creek; rusty gravels; about 50% silt-sand & 50% angular pebbles-cobbles; clasts are 55% assorted schist, 40% granite, 5% basalt & minor diorite; collected 1 gallon sample; screened & panned – 1 speck gold.

FIELD NOTES:

1) 1995E/3402N; 1m section on north side of Freegold Road; 15 cm of organics/ash/fine sand, then 10 cm of reddish-brown rusty (hematitic?) sand; then 55 cm+ of fine tan/light brown sand with minor pebbles; pebbles are multiple lithologies.
2) 1995E/3338N; 5 cm organics; then 20 cm rusty brown sand; then 20 cm+ of tan/light brown pebbly sand.
3) 2000E/3325N; excellent exposure of tan/light brown pebbly sand with 5% pebbles mainly granite with minor schistose diorite.
4) 1990E/3315N; Creek #1; modern stream deposits; 50% brown silt-sand, 50% pebbles-cobbles mostly rust-covered; clasts are mainly light brown schist with minor diorite, granite & quartz.
5) 2002E/3265N; 5 cm organics; 5 cm light grey ash; 10 cm yellowish-brown rusty (limonitic?) sand; then into 20 cm+ of tan-brown sand with minor pebbles.
6) wide area of hummocky moss with brush & few trees.
7) thin organics around spruce tree; 10 cm organics; 5 cm ash; then into 30 cm+ of brown probable colluviums with 30% clay-silt, 40% brown sand & 30% angular pebbles-cobbles of variable schist.
8) 20 cm mixed organics, ash & fine sand; then into 30 cm+ of brown colluviums with 20% clay-silt, 50% brown sand & 30% variable schist & diorite pebbles-cobbles.
9) 1900E/2030N; 15 cm mixed organics, ash & sand; into 30 cm dark yellowish-brown sand; then into 5 cm+ of light tan/brown sand; minor pebbles.
10) 1895E/2075N; 10 cm organics; then 20 cm brown sand; then into ice/permafrost.
11) 1910E/3140N; 5 cm organics; 20 cm dark yellowish-brown sand; then into 10 cm+ of tan-brown pebbly sand.
12) 1895E/3220N; modern stream sediments; light brown silt-sand overlain by 20 cm organics.
13) 1900E/3260N; braided stream channels; large trees; brown silt-sand overflow sediments over organics; fine gravels with clasts up to 5 cm in channels; clasts are angular to subrounded brown slightly rusty schist fragments; minor quartz.

14) 1920E/3295N; south side of Freegold road; pebbly brown sand with 30% pebbles to cobbles; mainly brown angular schist fragments with other minor lithologies.
15) approx 1850E/3350N; along southeast side of very small creek; area of distinct white moss/lichen; 5 cm organics; into 30 cm+ of brown clast-supported rounded fluvial gravels; pebbles to cobbles; multiple lithologies; 75% granite/granodiorite/diorite, 25% dark intermediate to mafic volcanics; look similar to fluvial pay gravels on Back Creek.
16) 1795E/3410N; same fluvial gravels as at 15).
17) 1805E/3355N; 11110 cm organics; 10 cm fine light brown sand; 20 cm+ of rounded gravels as at 15) & 16) with silt-sand matrix.
18) 1800E/3230N; 10 cm organics, 10 cm ash; then into 30 cm+ of mucky clay-silt; little sand & no pebbles; modern stream sediment or fine facies of sand?
19) 1955E/3330N; between creek & road; 10 cm organics; 10cm ash; then into 50 cm+ of brown sand with 20% pebbles to cobbles angular to subrounded with various lithologies.
20) 1960E/3325N; modern stream gravels; pebbles to cobbles to minor boulders; subangular to subrounded; sitting on clay-silt base; 75% granite & porphyry, 15% dark grey-black basalt, 10% assorted granodiorite/diorite & sericite schist.
21) 1957E/3315N; top of backhoe trench muck pile; possible fluvial stream gravels from bottom (?) of adjacent pit about 3m deep; about 50% sand & 50% pebbles to cobbles; 60% granite/granodiorite/porphyry, 20% basalt, 20% assorted diorite & schist.
22) 2090E/3500N; north side of Freegold road cut; 10 cm organics; 10 cm ash & fine sand; then into 30 cm+ of well-sorted fine sand which was light brown wet & light tan-brown dry with minor rounded pebbles.
23) 2102E/3420N; same as 22).
24) 2100E/3407N; 5 cm organics; 10 cm reddish-brown (hematitic?) oxidized fine sand; then into 30 cm+ of tan-brown fine sand with 5% pebbles; pebbles are mix of angular schist & subrounded granite.
25) 2100E/3390N; 30 cm organics; then into sand along creek; no gravels.

26) 2103E/3380N; 10 cm organics; then 10 cm yellowish-brown (limonitic?) oxidized sand; then into 30 cm+ of tan-brown sand with 10% pebbles to cobbles with 50% angular schist & 50% subrounded granite.
27) 2098E/3343N; 10 cm organics; 10 cm ash; then into 20 cm+ of yellowish-brown oxidized sand with 10% pebbles to cobbles with 50% granite & 50% schist.
28) 2105E/3310N; 10 cm organics; 10 cm ash; into 20 cm+ of fine tan-brown sand with minor pebbles & minor organic layers.
29) 2095E/3285N; no organics on this slope; 5 cm light tan-brown sand with pebble lag on surface; into 30 cm reddish-brown sand with 10% pebbles to cobbles with 50% schist & 50% granite; then into 5 cm+ of tan-brown sand.
30) ~2075E/3285N; 20 cm size white quartz float with rusty fracture fillings.
31) 2102E/3253N; 10 cm organics; 5 cm ash; 5 cm yellowish-brown sand; into 20 cm+ of tan-brown sand with minor pebbles.
32) 2095E/3220N; 20 cm organics; 10 cm+ of fine tan-brown sand.
33) 2100E/3194N; open hummocky moss & lichen, few trees; 20 cm organics; then into ice/permafrost.
34) ~2125E/3200N; line of bushes going downslope appears to be old road or shallow trench; 30 cm+ of tan-brown fine sand with minor pebbles.
35) 2195E/3200N; open treeless area; 10 cm organics; 15 cm ash; 10 cm clay-silt; then into ice/permafrost.
36) 2200E/3225N; 10 cm organics; 5 cm ash; then into 20 cm+ of fine brown silt.
37) 2205E/3240N; 20 cm organics; 5 cm ash; then into ice/permafrost.
38) 2190E/3255N; modern stream sediments here are fine light brown silt-sand.
39) 2200E/3270N; north bank of creek; 10 cm mixed organics & ash; then 20 cm yellowish-brown fine sand; then into 10 cm+ of tan-brown sand with rare pebbles.
40) 2200E/3300N; 10 cm organics; 5 cm ash; 5 cm yellowish-brown silt; the into ice/permafrost.
41) 2200E/3330N; 10 cm organics; 5 cm ash; 20 cm+ of yellowish-brown fine sand with 20% pebbles with 50% angular schist & 50% subrounded granite.
42) 2210E/3375N; 10 cm organics; 5 cm reddish-brown sand; 10 cm yellowish-brown sand; then into 20 cm+ of tan-brown sand with 10% pebbles to cobbles with 50% schist & 50% granite.

43) 2203E/3412N; 10 cm organics; 10 cm ash; then 2 cm black organic layer; then into 20 cm+ of brown fine sand with minor pebbles.
44) 2200E/3425N; valley bottom is sand with overlying organics; braided channels of the creek filled with subangular pebbles to cobbles with 40% schist, 40% granite & 20% diorite & minor quartz.
45) 2200E/3453N; 5 cm organics; minor ash; 10 cm reddish-brown fine sand; then grades into 30 cm+ of yellowish-brown fine sand with 30% cobbles with 60% granite, 20% schist & 20% diorite.
46) 2200E/3490N; 10 cm organics; 5 cm ash; 20 cm+ of light tan-brownsilt with no pebbles.
47) 2295E/3195N; modern stream sediments mainly fine sand washed down from eroding banks; sand is brown when wet & light tan when dry; 5% pebbles; pebbles are 60% granite/granodiorite, 20% sericite schist & 20% black amphibole schist; lots of magnetite in streaks in creek.
48) 2303E/3225N; open treeless area; 10 cm organics; then into same fine sand as at 47).
49) 2298E/3278N; open mossy brushy area with a few scattered small spruce; 10 cm organics; 10 cm ash; 20 cm+ of rusty yellowish-brown fine sand with a few pebbles.
50) 2300E/3340N; open mossy area; 15 cm organics; 10 cm ash; then a single rounded granite cobble sitting on top of ice/permafrost in fine brown sand.
51) 2297E/3400N; open mossy area; 10 cm organics; 5 cm ash; 20 cm fine brown sand with minor pebbles; ; into ice/permafrost at 35 cm.
52) 2295E/3435N; north facing bank in open mossy brushy area; 30 cm of organics & sphagnum moss/peat moss; into fine sand & ice/permafrost at 30 cm.
53) 2300E/3445N; very small creek flowing northwest into Montgomery Creek; 2m wide deposit of sand with small pebbles; pebbles are 50% granite/granodiorite, 30% sericite schist, 20% black biotite-amphibole schist & minor white to yellowy-brown stained quartz.
54) 2295E/3450N; 10 cm organics; 10 cm ash; then into 20 cm+ of rusty brown fine sand with minor pebbles.
55) 2300E/3500N; modern stream sediments in Montgomery Creek are rusty with about 50% sand & 50% pebbles/cobbles/boulders; clasts are mainly angular but

minor rounded; about 60% granite/granodiorite, 30% sericite schist; 5% diorite & 5% black biotite-amphibole schist.

56) 2295E/3545N; moderate slope, well-treed with spruce, minor poplar & one lone pine; 10 cm organics; 10 cm ash; into yellowish-brown fine sand with minor pebbles.

57) 2300E/3575N; 10 cm organics & ash; into 15 cm light tan-brown sand; then into 10 cm+ of 70% sand & 30% angular sheared rusty granite.

58) 2297E/3595N; on north side of Freegold road cut; 10 cm organics; 10 cm ash; into 40 cm of fine sand with minor pebbles; then into 10 cm+ of 70% sand & 30% angular pebbles-cobbles with 60% granite, 20% felsic schist, 20% diorite/gabbro & minor porphyry.

59) 2195E/3540N; on north side of Freegold road cut; 10 cm organics; 15 cm ash & fine sand; 20 cm reddish-brown sand; then 30 cm+ of light brown fine sand with few pebbles.

60) 2200E/3575N; 5 cm organics; 10 cm light grey ash; into 15 cm+ of fine rusty brown silt.

61) 2200E/3600N; 10 cm organics; 15 cm ash; into 5 cm+ of fine rusty silt.

62) 2100E/3600N; 10 cm organics; 15 cm ash; into 10 cm+ of brown clay-silt.

63) 2097E/3558N; 10 cm organics; 15 cm ash; into 10 cm+ of yellowish-brown fine silt.

64) 2425E/3550N; approximately 5 m high bank along south side of Montgomery Creek; 10 cm organics; 10 cm ash; 10 cm red-brown hematitic weathering; into 20 cm of yellowish-brown limonitic weathering; into 20 cm+ of tan-brown sand with 30% subangular pebbles & cobbles with multiple lithologies; about 50% of clasts are granite/granodiorite that vary from fine-grained pink aplites up to coarse-grained & almost pegmatitic, 45% schist that varies from felsic & sericitic to mafic with biotite-amphibole, 5% diorite; the top 3 m of this section has 30% clasts but the bottom 2 m is sand with only minor pebbles.

65) 2395E/3517N; open alpine tundra; 10 cm organics; 10 cm ash; into 10 cm+ of tan-brown sand with abundant pebbles/cobbles.

66) 2420E/3500N; open alpine tundra; 10 cm organics; 10 cm ash; into 10 cm+ of tan-brown sand with minor pebbles.

67) 2398E/3458N; 20 cm organics; 10 cm ash; then into sand/ice/permafrost.

68) 2400E/3420N; 20 cm organics; then into ash/ice/permafrost.
69) 2495E/3400N; 20 cm sphagnum moss; 5 cm+ of ash; then into ice/permafrost.
70) 2495E/3440N; 10 cm organics; no ash; into 20 cm+ of brown silt with minor pebbles.
71) 2510E/3480N; 10 cm organics; 10 cm ash; into 20 cm+ of fine yellowish-brown sloppy wet silt with minor pebbles.
72) 2510E/3505N; 10 cm organics; 10 cm ash; into 20 cm+ of yellowish-brown sand with minor pebbles.
73) 2495E/3535N; 10 cm organics; 5 cm ash; 10 cm yellowish-brown weathered sand; into 20 cm+ of sand with minor pebbles.
74) 2500E/3585N; 10 cm recent organics in old stripped area; into 30 cm+ of dark brown mucky clay-silt with minor granite pebbles; recent stream sediments/till/colluvium?
75) 2510E/3620N; 20 cm black humus; 10 cm ash; into clay/ice/permafrost.
76) 2500E/3630N; 30 cm black humus; into ash/ice/permafrost.
77) 2490E/3715N; 20 cm black humus; into 10 cm+ of yellowish-brown sand with 10% granite pebbles.
78) 2490E/3745N; 15 cm black humus; 10 cm ash; into 5 cm+ of tan-brown silt with minor pebbles.
79) 2485E/3775N; on Freegold road; probably brown colluvium; 75% clay-silt matrix with 25% pebbles-cobbles; clasts are angular with about 75% medium-grained granite & 25% medium-grained diorite.
80) 2400E/3685N; on Freegold road; light brown probable colluvium; about 60% clay-silt matrix with 40% angular pebbles/cobbles/boulders; clasts are 50% granite & 50% diorite that is mainly cobbles to boulders.
81) 2380E/3745N; 10 cm organics; 10 cm ash; into 20 cm+ of yellowish-brown probable colluvium with 70% silty matrix & 30% angular granite pebbles.
82) 2370E/3675N; 5 cm organics; 5 cm ash; into 20 cm+ of yellowish-brown probable colluvium with 70% silty matrix & 30% angular granite pebbles.
83) 2405E/3665N; 10 cm organics; 20 cm mixed ash & fine sand; into 5 cm+ of yellowish-brown colluvium with 70% clay-silt matrix & 30% angular granite pebbles-cobbles.

84) 2398E/3620N; 10 cm organics; into 20 cm+ of tan-brown silt-sand with 30% angular granite pebbles-cobbles & minor schist.
85) 2395E/3600N; 10 cm organics; 5 cm ash; into 5 cm red-brown weathered sand; then into 10 cm yellow-brown weathered sand; then into 10 cm+ of tan-brown sand with minor angular granite pebbles-cobbles.
86) 2400E/3670N; in stripped area along north side of Montgomery Creek; brown clay-silt with 10% mostly granite clasts with most angular but some rounded; probable modern stream sediments.
87) 2600E/3805N; 30 cm organics & black humus; then into ash.
88) 2580E/3780N; 20 cm organics & black humus; minor ash; into 10 cm+ of brown colluvium with clay-silt-sand matrix with 10% angular granite pebbles.
89) 2590E/3730N; 20 cm organics & black humus; then into 10 cm+ of mixed humus & ash.
90) 2600E/3678N; 20 cm organics & black humus; into 20 cm ash; then into ice/permafrost.
91) 2585E/3640N; 20 cm organics & black humus; then into 20 cm+ of tan-brown silt-sand with minor granite pebbles.
92) 2578E/3583N; 10 cm organics; into 20 cm+ of tan-brown silt-sand.
93) ~2550E/3580N; tan-brown silt-sand with 30% angular pebbles & cobbles; clasts are 60% granite, 30% assorted felsic sericite to mafic schists, 5% diorite, 5% basalt.
94) 2520E/3530N; tan-brown silt-sand with minor pebbles; pebbles are 60% assorted schist & 40% granite; probable modern stream sediment.
95) 2502E/3503N; 5 cm organics; 5 cm ash; into 20 cm+ of dark yellowish-brown oxidized sand with 20% pebbles.
96) 2498E/3476N; 5 cm organics; 10 cm ash; into 20 cm+ of dark yellowish-brown oxidized silt-sand with 10% assorted pebbles.
97) 2505E/3425N; 25 cm organics & sphagnum moss; then into ash/ice/permafrost.
98) 2700E/3420N; brushy area of modern stream sediments; brown rusty silt-sand.

99) 2680E/3660N; 5 m high bank of sand on east side of creek #2; 5 cm organics; into 20 cm+ of tan-brown silt-sand with 30% pebbles; pebbles are almost entirely schist & minor quartz pebbles.
100) ~2660E/3500N; same as 99).
101) 2695E/3537N; 5 cm organics; 10 cm ash; into 20 cm+ of yellowish-brown silt-sand with minor schist pebbles.
102) 2700E/3585N; brown silt-sand; rusty creek; modern stream sediments.
103) 2720E/3650N; 5 cm organics; into 25 cm+ of yellowish-brown sand with 30% granite & diorite pebbles-cobbles.
104) ~2685E/3730N; area of recent silt-sand deposited on moss & organics from intermittent stream flow down a low area; small pebbles are 75% granite & 25% diorite with minor white quartz.
105) 2675E/3790N; 10 m high bank of sand along northwest side of small intermittent creek; light tan-brown silt-sand with minor granite pebbles.
106) 2800E/3795N; 5 m high bank of sand; 5 cm organics; 10 cm ash; into 30 cm+ of tan-brown sand with 5% pebbles; pebbles are 85% granite-granodiorite, 10% diorite & 5% assorted angular schist.
107) 2785E/3685N; sand bank north of creek; 5 cm organics; 20 cm tan-brown sand; then thin ash layer; then into 10 cm of reddish-brown sand; then into 5 cm+ of tan-brown sand; about 5% angular pebbles mainly granite-granodiorite but with 5% diorite, 5% schist & minor quartz.
108) 2800E/3675N; low area along creek is covered in grass, brush & organics; sediment in creek is entirely rusty sand with no pebbles.
109) 2810E/3620N; 5 cm organics; 5 cm ash; into 30 cm+ of yellowish-brown oxidized sand with no pebbles.
110) 2810E/3605N; 5 cm organics; into 20 cm+ of yellow-brown oxidized sand with 5% pebbles; pebbles are about 90% granite & 10% schist; large number of gopher holes on this sand bank.
111) 2800E/3540N; 10 cm organics; 10 cm ash; then into 20 cm+ of yellow-brown oxidized sand with 5% pebbles.
112) 2798E/3470N; treed area; 15 cm organics & black humus; into 10 cm+ of ash & fine sand.

113) 2798E/3442N; treed area; 15 cm organics & black humus; 20 cm ash; into 5 cm+ of tan-brown sand with 30% pebbles; pebbles are mainly angular granite-granodiorite.
114) ~2750E/3400N; 5 m high sand bank along east side of creek; 5 cm organics; into 20 cm+ of tan-brown sand with 5% pebbles; pebbles are 90% schist, 10% granite & minor white quartz.
115) 2900E/3407N; treed area; 20 cm organics & humus; 5 cm ash; into 10 cm+ of dark brown clay-silt with minor pebbles; probable colluvium.
116) 2898E/3442N; treed area; 20 cm organics & humus; into 10 cm+ of rusty sand with 30% rusty pebbles.
117) 2900E/3475N; 30 cm+ of tan-brown sand with minor pebbles.
118) 2900E/3530N; 25 cm organics & humus; into ice/permafrost.
119) 2895E/3570N; 20 cm organics & humus; into 10 cm of tan-brown sand; then into ice/permafrost.
120) ~2860E/3600N; sand hill; 10 cm organics; 5 cm ash; 5 cm red-brown oxidized sand; into 20 cm+ of yellow-brown sand with 30% angular pebbles; pebbles are about 50% granite-granodiorite & 50% assorted schist.
121) 2900E/3640N; 10 cm organics; 10 cm ash; into 20 cm+ of yellow-brown sand with 30% subangular coarse-grained pebbles-cobbles.
122) 2890E/3670N; 30 cm+ of tan-brown sand with 5% pebbles; pebbles are 90% granite-granodiorite, 5% diorite & 5% schist.
123) 2905E/3710N; 10 cm organics; minor ash; into 20 cm+ of tan-brown sand with 5% pebbles.
124) 2900E/3740N; modern stream gravels along narrow stream channel; mix of pebbles, cobbles & minor boulders with 90% granite, 10% schist & minor quartz.
125) 2897E/3770N; 10 cm organics; 10 cm ash; minor red-brown oxidized sand; into 20 cm+ of yellowish-brown sand with 10% granite-granodiorite pebbles.

APPENDIX II – PHOTOGRAPHS

Photo 1. Camp on Freegold road at lower Back Creek (June, 2021).

Photo 2. Looking northeast from L1900E/3350N at west-facing scarp near west end of sand unit SAN. Note Donald Hood on hill for scale (August, 2021)

Photo 3. Profile of sand unit SAN at about 2425E/3550N along south bank of Montgomery Creek, showing organic layer, fine sand/ash layer, hematitic oxidized layer, limonitic oxidized layer and unaltered tan-brown coloured sand at bottom.

Photo 4. Looking west between lines 2400E and 2500E in stripped area along north side of Montgomery Creek. The author augering unit MSS sediments.

Photo 5. Rusty angular cobble-boulder gravels of MSS unit in Montgomery Creek near line 2300E (August, 2020).

Photo 6. Donald Hood sampling rusty gravels at 1933E/3272N along Montgomery Creek (July, 2021).

Photo 7. The author digging sampling pit in unit FG fluvial boulder gravels overlain by unit SAN sand at 1854E/3272N near Freegold road (August, 2021).

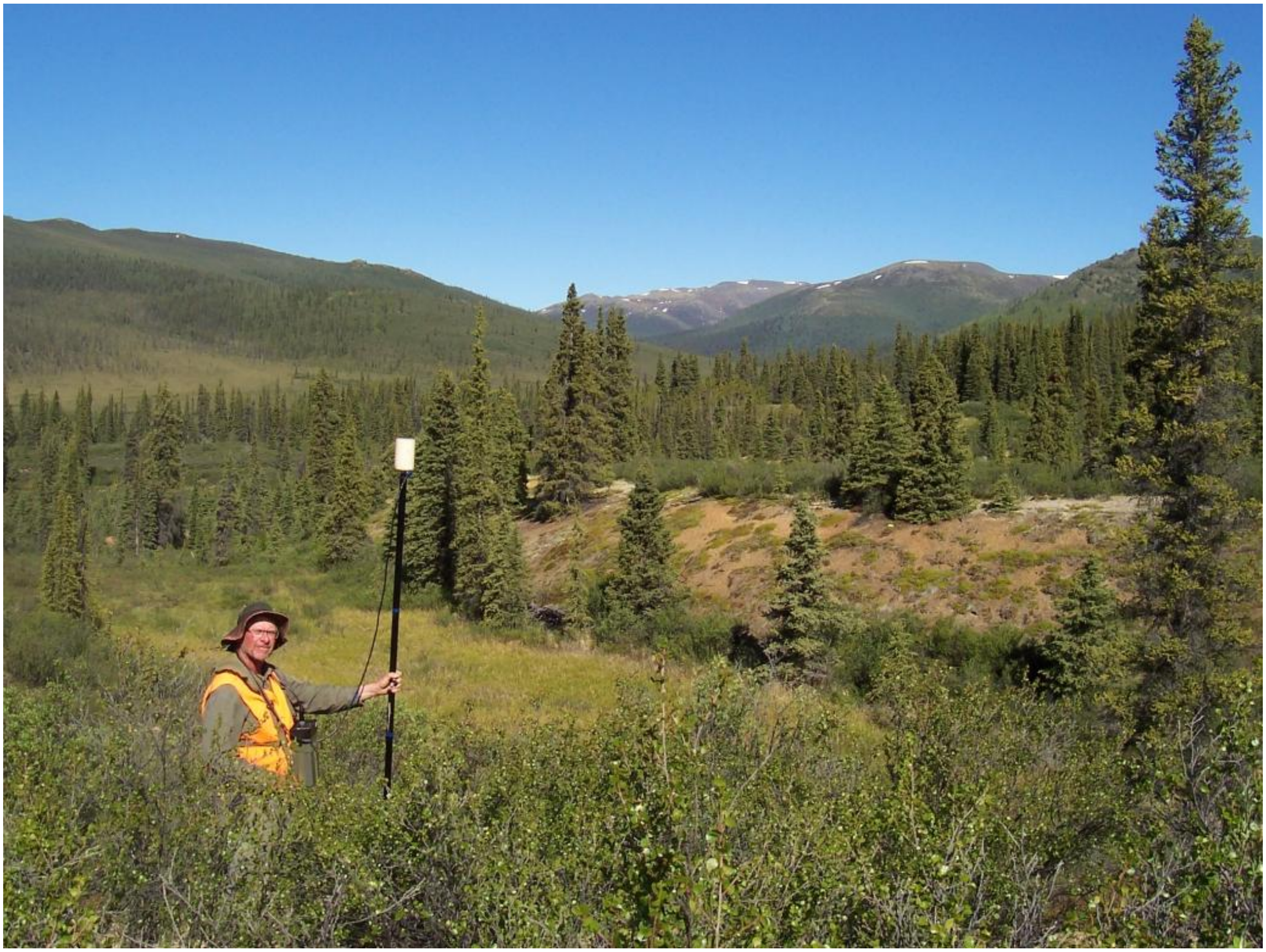


Photo 8. Looking northwest across Montgomery Creek toward Victoria Creek. William Hood doing total field magnetic survey (June, 2021).

Photo 9. Looking northeast across Creek #1 toward upper Montgomery Creek. William Hood doing VLF-EM survey (June, 2021).

Photo 10. Screened +0.25” oversize from samples MONT21-GR-1 to -6. Note rusty angular clasts in samples MONT21-GR-2 and -6, versus more rounded, non-rusty clasts in samples from unit FG fluvial gravels in Victoria Creek valley.

APPENDIX III

Specifications For

Geometrics G-856 Magnetometer &

Geonics EM-16 VLF Receiver

GEOMETRICS

G-856 Memory-MagTM

Proton Precession Magnetometer

MODEL G-856A & AX OP MAN
EDITION 2/2002
REV 02

M. SPECIFICATIONS

Displays	Six digit display of magnetic field to resolution of 0.1 gamma or time to nearest second. Additional three digit display of station, day of year, and line number.
Resolution	Typically 0.1 gamma in average conditions. May degrade to lower resolution in weak fields, noisy conditions or high gradients.
Absolute Accuracy	One gamma, limited by remnant magnetism in sensor and crystal oscillator accuracy.
Clock	Julian clock with stability of 5 seconds per month at room temperature and 5 seconds per day over the temperature range of -20 to +50 degrees Celsius.
Tuning	Push button tuning from keyboard with current value displayed on request. Tuning range 20 to 90 kilogammas.
Gradient Tolerance	Tolerates gradients to 1800 gammas/meter. When high gradients truncate count interval, maintains partial reading to an accuracy consistent with data.
Cycle Time	Complete field measurement in three seconds in normal operation. Internal switch selection for faster cycle (1.5 seconds) at reduced resolution or longer cycles for increased resolution.

Manual Read	Takes reading on command. Will store data in memory on command.
Memory	Stores more than 5000 readings in survey mode, keeping track of time, station number, line number day and magnetic field reading. In base station operation, computes for retrieval but does not store time of recording designated by sample interval, allowing storage of up to 12,000 readings.
Output	Plays data out in standard RS-232 format at selectable baud rates. Also outputs data in real time byte parallel, character serial BCD for use with digital recorders.
Inputs	Will accept an external sample command.
Special Functions	An internal switch allows: 1) adjustment of polarization time and count time to improve performance in marginal areas or to improve resolution or speed operation, 2) three count averaging, 3) choice of lighted displays in auto mode.
Physical	Instrument console: 7 x 10 ½ x 3 ½ inches (18 x 27 x 9 cm) 6 LB (2.7 kg) Sensor: 3 1/2 x 5 inches (9 x 13 cm) 4 LB (1.8 kg) Staff: 1 inch x 8 feet (3cm x 2.5m) 2 LB (1kg)
Environmental	Meets specifications from 1 to 40°C. Operates satisfactorily from -20 to 50°C.
Power	Operates from 9 D-cell flashlight batteries (or 13.5 volts external power). May be operated at 18 volts external power to improve resolution. Power failure or replacement of batteries will not cause loss of data stored in memory.

ACCESSORIES

Standard:
- Sensor
- Staff
- Backpack
- Two sets of batteries
- Carrying case
- Applications Manual for Portable Magnetometers
- RS-232 Cable

Optional:
- Cold weather battery belt
- Rechargeable Battery option
- 50' External power / Sensor cable
- Spares Kit

GEONICS LIMITED

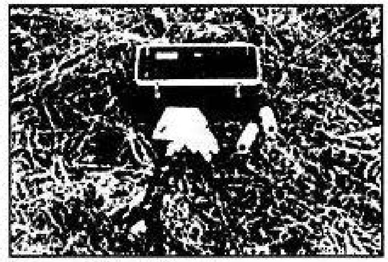
Leaders in Electromagnetics

EM16 | EM16R | TX27

The EM16 VLF Receiver is the most widely used electromagnetic geophysical instrument of all time. Local tilt and ellipticity of VLF broadcasts are measured and resolved into inphase and quadrature components of VLF response. The EM16 has discovered several base and precious-metal ore bodies and many water-bearing fractures and faults.

The EM16R Resistivity Attachment uses a pair of electrodes to measure the apparent resistivity of the earth. The combined EM16/16R instrument can detect a second earth layer if the layer occurs within the VLF skin-depth. In addition, the EM16/16R can map resistive alteration for gold exploration.

The TX27 is a portable VLF transmitter supplying a VLF field for surveying with either the EM16 or EM16/16R if remote broadcasts are weak, intermittent or poorly coupled with the target. For EM16 surveys, the TX27 antenna consists of a long (typically 1 km) grounded wire.



Specifications

MEASURED QUANTITIES

EM16: inphase and quadrature components of the secondary VLF field, as percentages of the primary field

EM16R: apparent resistivity in ohm-metres, and phase angle between Ex and Hy

PRIMARY FIELD SOURCE

EM16: ferrite-core coil

EM16R: Stainless-steel electrodes, separated by 10 m: impedence of sensor is 100 MΩ in parallel with 0.5 pf

SENSOR

9.8 kHz

OPERATING FREQUENCY

15 to 25 kHz (optionally to 30kHz) depending on VLF broadcasting station

MEASURING RANGES

EM16: inphase: ±150%
quadrature: ±40%

EM16R: 300,3K,30KΩ-m
phase: 0 - 90°

POWER SUPPLY

EM16/EM16R: 6 alkaline "AA" cells

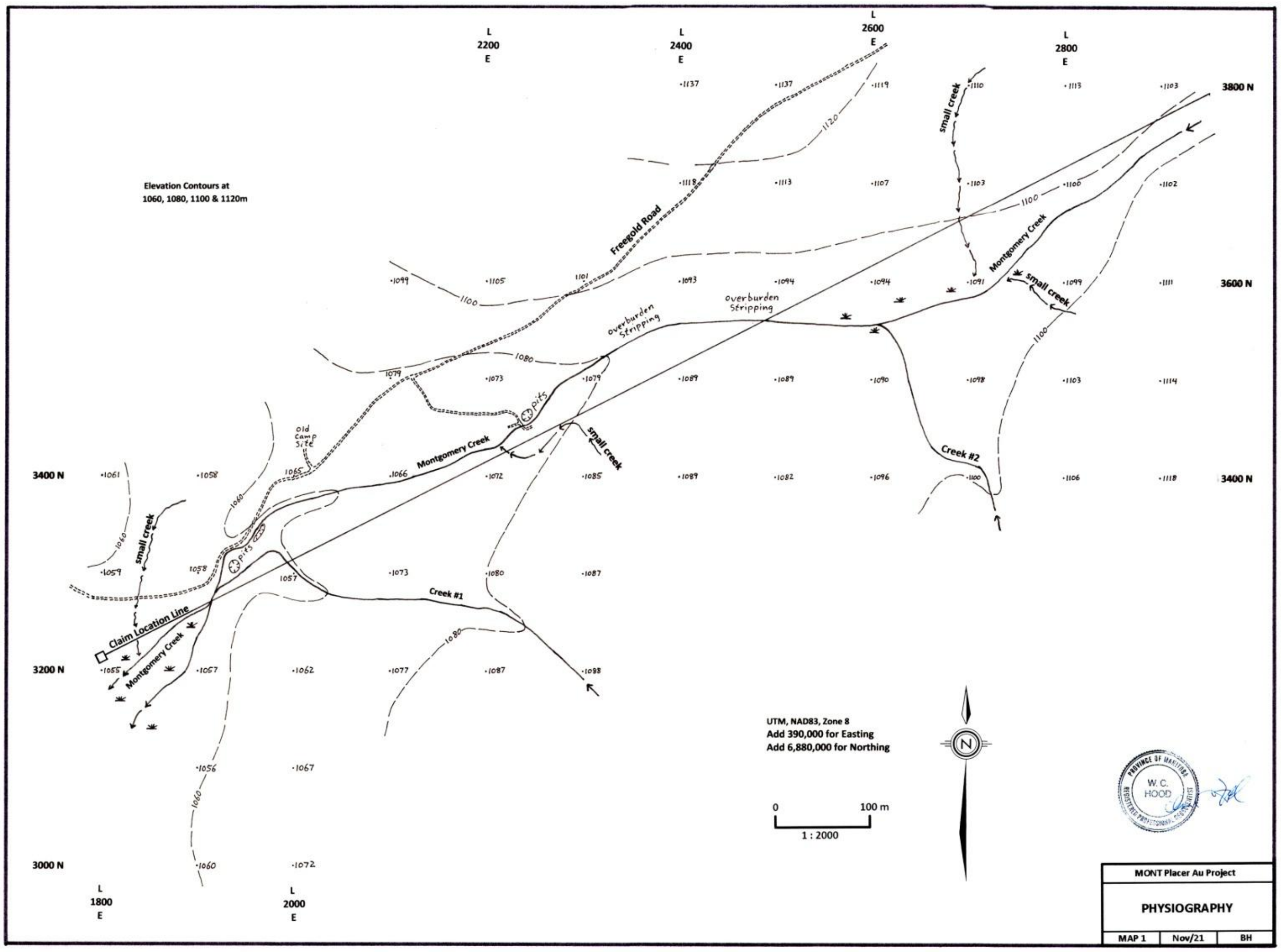
DIMENSIONS

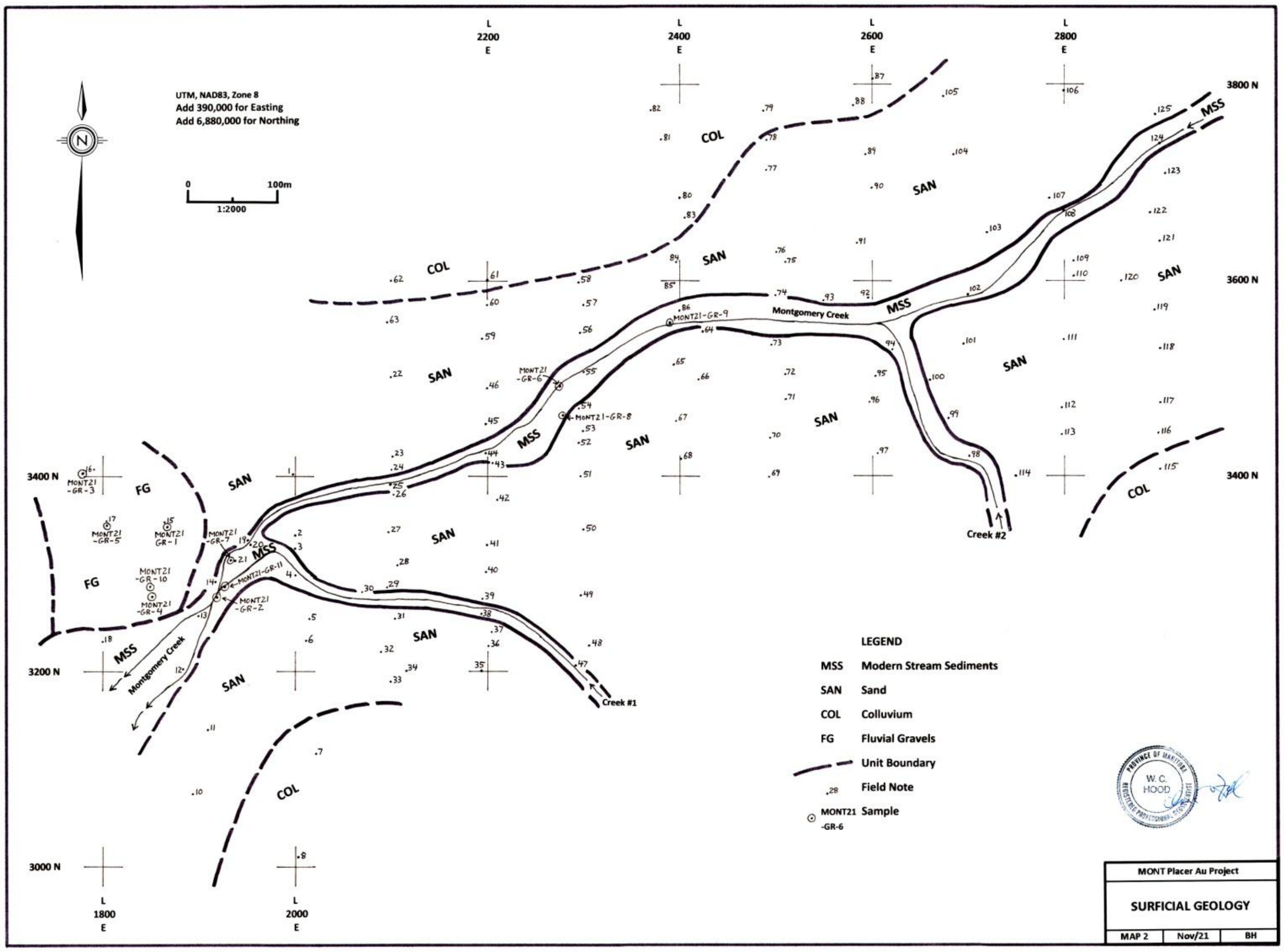
EM16/EM16R: 53x30x22 cm

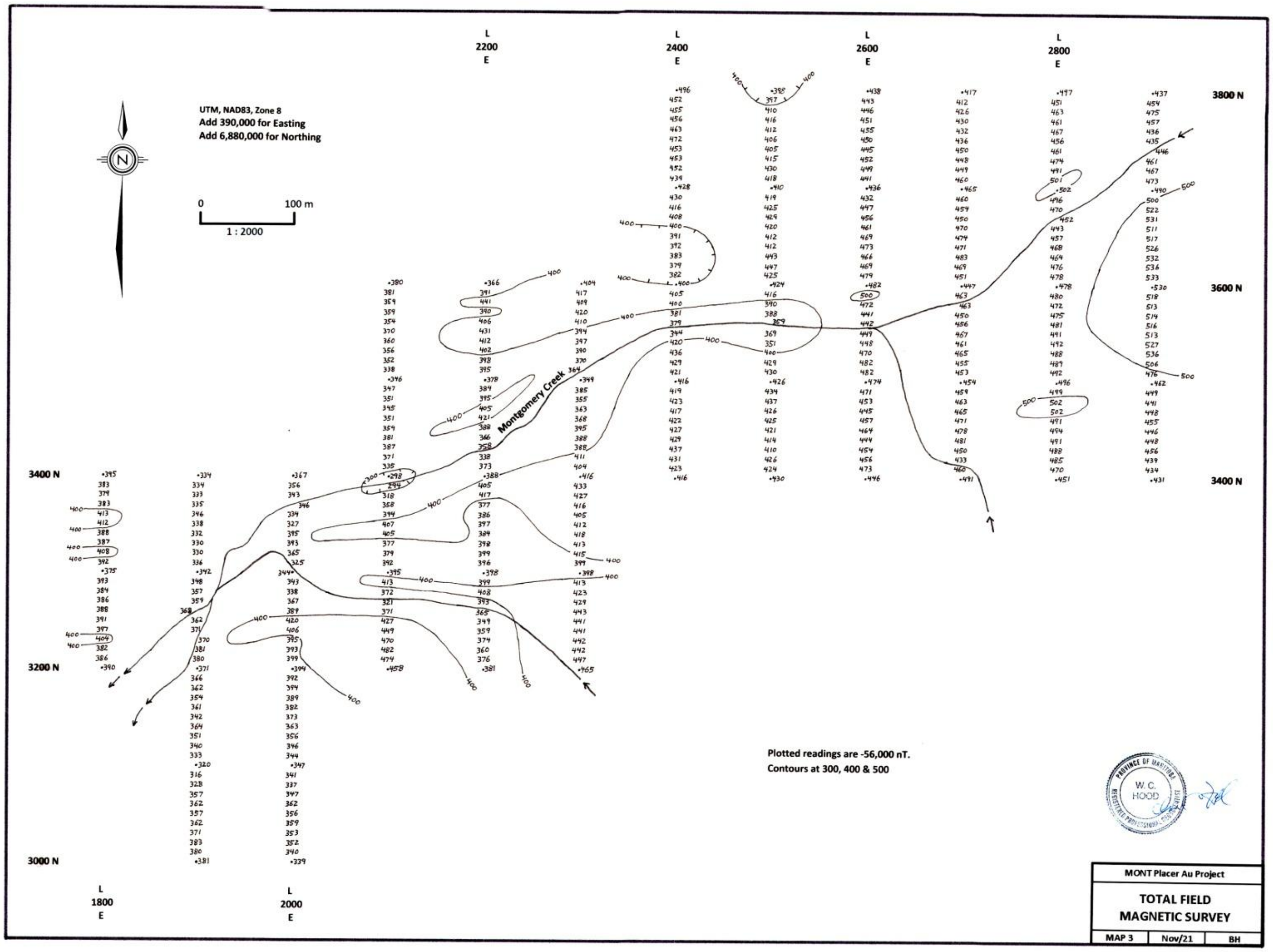
WEIGHTS

EM16:1.8 kg;shipping:6.2 kg

EM16R:1.5 kg;shipping:6 kg


Elevation Contours at
1060, 1080, 1100 & 1120m
Freegold Road
Montgomery Creek
small creek
Creek #1
Creek #2
Claim Location Line
overburden Stripping
pits
old camp site
3800 N
3600 N
3400 N
3200 N
3000 N
L 1800 E
L 2000 E
L 2200 E
L 2400 E
L 2600 E
L 2800 E
UTM, NAD83, Zone 8
Add 390,000 for Easting
Add 6,880,000 for Northing
0
100 m
1 : 2000
N
W. C. HOOD
MONT Placer Au Project
PHYSIOGRAPHY
MAP 1
Nov/21
BH


UTM, NAD83, Zone 8
Add 390,000 for Easting
Add 6,880,000 for Northing
0
100m
1:2000
L 2200 E
L 2400 E
L 2600 E
L 2800 E
L 1800 E
L 2000 E
3800 N
3600 N
3400 N
3200 N
3000 N
COL
SAN
MSS
FG
Montgomery Creek
Creek #1
Creek #2
MONT21-GR-9
MONT21 -GR-6
MONT21-GR-8
MONT21-GR-11
MONT21 -GR-2
MONT21 -GR-3
MONT21 -GR-5
MONT21 GR-1
MONT21 -GR-7
MONT21 -GR-10
MONT21 -GR-4
LEGEND
MSS Modern Stream Sediments
SAN Sand
COL Colluvium
FG Fluvial Gravels
Unit Boundary
.28 Field Note
MONT21 -GR-6 Sample
MONT Placer Au Project
SURFICIAL GEOLOGY
MAP 2
Nov/21
BH


UTM, NAD83, Zone 8
Add 390,000 for Easting
Add 6,880,000 for Northing
N
0
100 m
1 : 2000
L 2200 E
L 2400 E
L 2600 E
L 2800 E
L 1800 E
L 2000 E
3800 N
3600 N
3400 N
3200 N
3000 N
Montgomery Creek
Plotted readings are -56,000 nT.
Contours at 300, 400 & 500
W. C. HOOD
MONT Placer Au Project
TOTAL FIELD
MAGNETIC SURVEY
MAP 3
Nov/21
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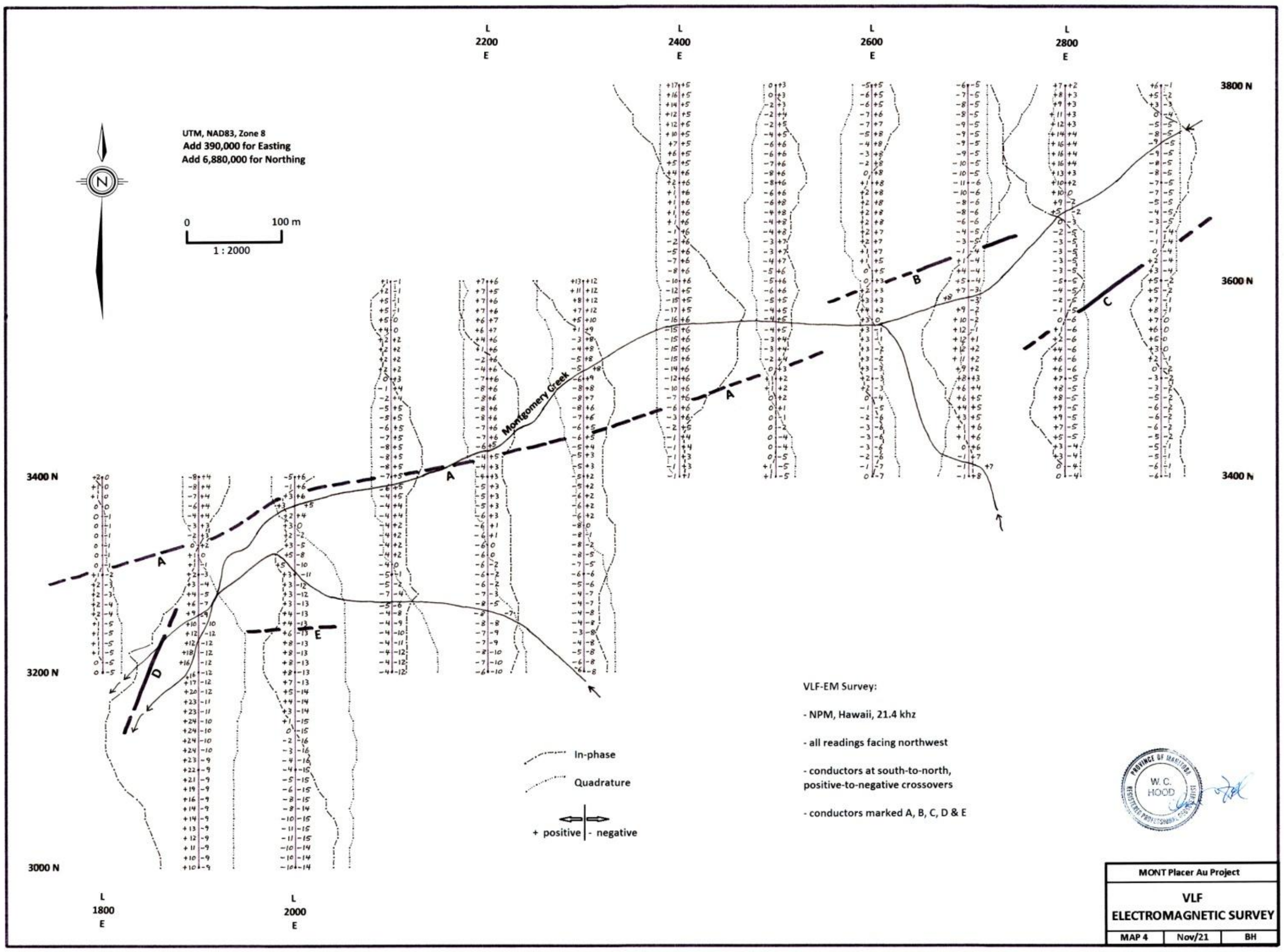
UTM, NAD83, Zone 8
Add 390,000 for Easting
Add 6,880,000 for Northing
N
0
100 m
1 : 2000
L 1800 E
L 2000 E
L 2200 E
L 2400 E
L 2600 E
L 2800 E
3800 N
3600 N
3400 N
3200 N
3000 N
Montgomery Creek
A
B
C
D
E
In-phase
Quadrature
+ positive
- negative
VLF-EM Survey:
- NPM, Hawaii, 21.4 khz
- all readings facing northwest
- conductors at south-to-north, positive-to-negative crossovers
- conductors marked A, B, C, D & E
MONT Placer Au Project
VLF
ELECTROMAGNETIC SURVEY
MAP 4
Nov/21
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