Assessment Report on the LEE 1 to LEE 4 Quartz Claims:

Geochemical Exploration in the Mount McDade Area

Whitehorse Mining Division, Yukon

NTS 115I/02 and 115I/03

Quartz Claims: LEE 1 to LEE 4 (Grant Numbers: YF52015 to YF52018)

UTM Coordinates (near centre of claims): 397500E, 6891000N, UTM Zone 8N, NAD 83

Registered Owner: **Glen James Prior**
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Sherwood Park, Alberta

Dates Field Work Performed on Claims LEE 1 to LEE 4:
2017-Aug-25 and 2017-Aug-28 to 2017-Aug-31

Note: A previous version of this report, dated January 28, 2108, was submitted to fulfill the requirements of the Yukon Mineral Exploration Program (YMEP no. 17-069).

Glen Prior

July 05, 2018

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Summary

Exploration in the 1970's and 1980's resulted in the discovery of four zones of mineralization, alteration and or geochemically anomalous rock and soil in the Mount McDade area, about 40 km west of Carmacks, Yukon. The primary target in this area is an epithermal gold-silver deposit.

The Mount McDade area lies just east of the Mount Nansen area, which is host to several epithermal gold deposits and mineralized zones. Cretaceous igneous rocks of the Mount Nansen area are characterized by positive magnetic anomalies and similar anomalies occur in the Mount McDade area. Recent regional mapping has confirmed the presence of satellite bodies of mid-Cretaceous and Late Cretaceous igneous rocks in the Mount McDade area, some of which correspond to the magnetic anomalies. Similar rocks are associated with epithermal gold mineralization in the Mount Nansen area.

Three target zones within the Mount McDade area have returned significant gold and epithermal pathfinder element values in rock float (a fourth zone is characterised by altered rocks that have yielded only low gold values). None of these areas have been drilled.

Values of up to 15.65 g/t Au, 132.5 g/t Ag, 1.42% As and 0.27% Sb have been returned in samples of float from the Montgomery Creek Zone collected in an area of placer exploration trenching. These samples occur within clay-rich soil containing to 0.56 g/t Au, 28.3 g/t Ag, 0.30% As and 0.02% Sb. It appears likely that gold-bearing material was deposited on surface during trenching operations related to placer exploration.

Rock samples from the Wind Zone have yielded up to 0.74 g/t Au and 970 ppb Hg.

The Lee zone is characterized by abundant quartz-stibnite float that has returned values of up to 0.95 g/t Au, 2.32% Sb and >5000 ppb Hg. A sample of clay altered andesite (?) porphyry with only minor quartz veinlets from this area returned 0.85 g/t Au.

Soil and stream sediment data from the 1980's have been compiled. The stream sediment data is particularly compelling with local clustering of anomalous gold values (up to 470 ppb Au).

The 2017 exploration program in the Mount McDade area included:

- The staking of 4 claims in the Montgomery Creek area (MONT 1 to MONT 4) and 4 claims in the area of the Lee Zone (LEE 1 to LEE 4).
- The establishment of a soil sampling grid in the Montgomery Creek area, upslope from the location of the gold-bearing float sample. Fourteen B-horizon and 23 C-horizon samples were collected from hand dug pits. In addition, 3 samples were collected from mineralized and/or altered rock fragments extracted from the soil pits. Maximum values returned from this sampling include 41 ppb Au in B-horizon soil, 146.5 ppm As in C-horizon soil, and 13.2 ppm Sb in C-horizon soil.
- Trenches from the 1980's at the Wind Zone were mapped and four rock samples were collected. Three soil sampling traverses were completed on slopes above tributaries of McDade Creek to the south, east, and northeast of the Wind Zone trenches. Eighteen B-horizon and 21 C-horizon samples were collected from hand dug pits. In addition, 4 samples of mineralized and/or altered rock fragments extracted from the soil pits were collected for analyses. Maximum metal values in soil

samples include 15 ppb Au in B-horizon soil, 338 ppm As in B-horizon soil and 16 ppm Sb in B-horizon soil. Samples of trench rubble returned up to 802 ppm AS and 23.5 ppm Sb.

- In the Lee Zone area, existing trenches were mapped and 25 rock samples were collected, including several samples of trench rubble with stibnite mineralization. Values of up to 13.61% Sb and 385 ppb Au were obtained. Eleven of the samples returned > 1% Sb. In addition, 9 B-horizon samples and 9 C-horizon samples were collected from hand dug pits along an east-west traverse to the south of the trenched area. These samples returned up to 116 ppm Sb in C-horizon samples and extend the length of the known Sb soil anomaly from about 80 m to about 160 m further define the south-southeast trend.
- Seven stream sediment samples were collected within the drainage basin of the south branch of Lee Creek to the west of the Lee Zone. No significant anomalies were detected by this sampling.

Recommended follow-up work includes:

- Overburden drilling in the Montgomery Creek area (MONT claims) to attempt to identify the source of the gold-bearing float discovered in 1988 , which returned up to 15.65 g/t Au and 132.5 g/t Ag. Additional soil sampling by hand is needed to further investigate an area of elevated As in soil discovered by the 2017 program on the hillside north of Montgomery Creek.
- Additional soil sampling from hand dug pits in the area south and east of the Wind Zone to extend and further investigate the arsenic anomalies detected during the 2017 sampling, which indicate anomalous conditions across a 2 km area upslope of promising stream sediment (silt) gold anomalies. If results are encouraging, an overburden drilling program may be considered.
- Additional soil sampling of hand dug pits, possibly augmented by overburden drilling, is recommended to the Lee Zone area (LEE claims) to extend the strong antimony - (gold) trend to the southeast from the trenched area near the top of the ridge.

Location and Access

The Mount McDade project area is located in central Yukon in the vicinity of Mount McDade approximately 40 km west of Carmacks within the Whitehorse Mining Division (Figure 1). Access to the area is gained by travelling westward from Carmacks along the road to Mount Nansen. A trail (old road) leads from this road into the project area (Figure 2).

Figure 1. Map of southern and central Yukon showing the location of the Mount McDade project area (red circle). Map from Yukon Geological Survey MapMaker Online.

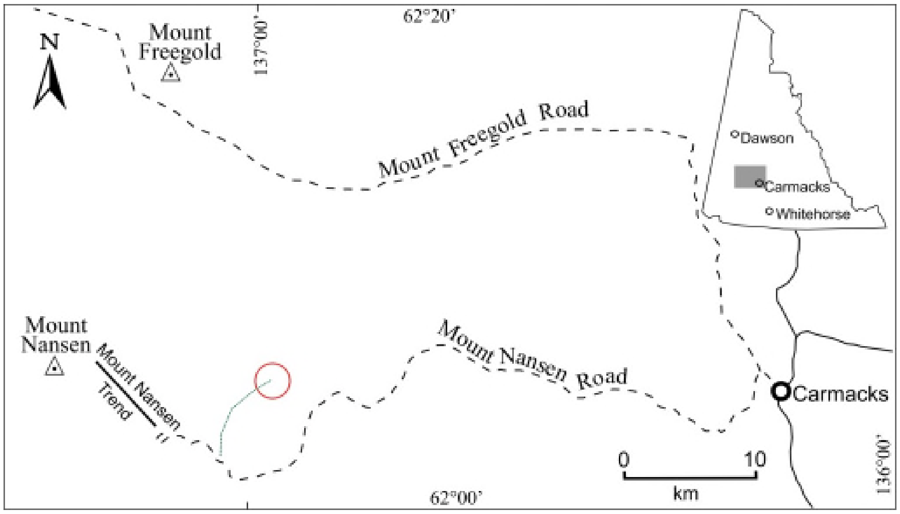


Figure 2. Access to the Mount McDade project area (red circle) from Carmacks (modified after Hart and Langdon, 1997).

Physiography

The Mount McDade area is characterized mainly by rounded, vegetation covered ridges with moderate slopes and broad U-shaped valleys (Figure 3). Elevations across the area range from 1100 m along Montgomery Creek to a maximum of 1499 m at the summit of Mount McDade. Major streams have gentle gradients but tributary streams occupy narrow, somewhat V-shaped valleys with moderate gradients and well developed dendritic patterns.

The main area of investigation in the Montgomery Creek area lies within an area of black spruce forest with boggy ground occurring near the creek. The Wind Zone and the Lee Zone both lie well above the tree line. Above the tree line the ground is covered by typical alpine vegetation including mosses, grasses and low growing deciduous shrubs dominated by buck brush.

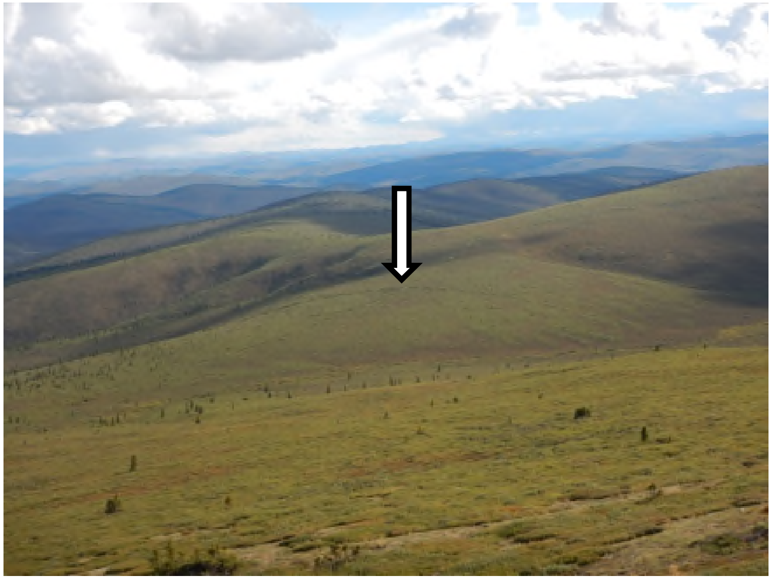


Figure 3. View toward 190° from summit of Mount McDade (396630E, 6888144N, UTM Zone 08V, NAD 83). The Wind Zone lies near the centre of the photo (arrow).

Quartz Claims

Two blocks of quartz claims were staked during the 2017 field program (Table 1and Figure 4). All of the claims are registered in the Whitehorse Mining District to Glen Prior.

MONT Claims: This is a block of 4 claims (MONT 1 to MONT 4) that straddles Montgomery Creek within NTS map area 115I/03.

LEE Claims: This is a block of 4 claims (LEE 1 to LEE 4) located northeast of Mount McDade in NTS map area 115I/02.

Claim Name	Tag Number	Recording Date
MONT 1	YF52011	2017-August-22
MONT 2	YF52012	2017-August-22
MONT 3	YF52013	2017-August-22
MONT 4	YF52014	2017-August-22
LEE 1	YF52015	2017-August-22
LEE 2	YF52016	2017-August-22
LEE 3	YF52017	2017-August-22
LEE 4	YF52018	2017-August-22

Table 1. Quartz claims staked during the 2017 field program in the Mount McDade area.

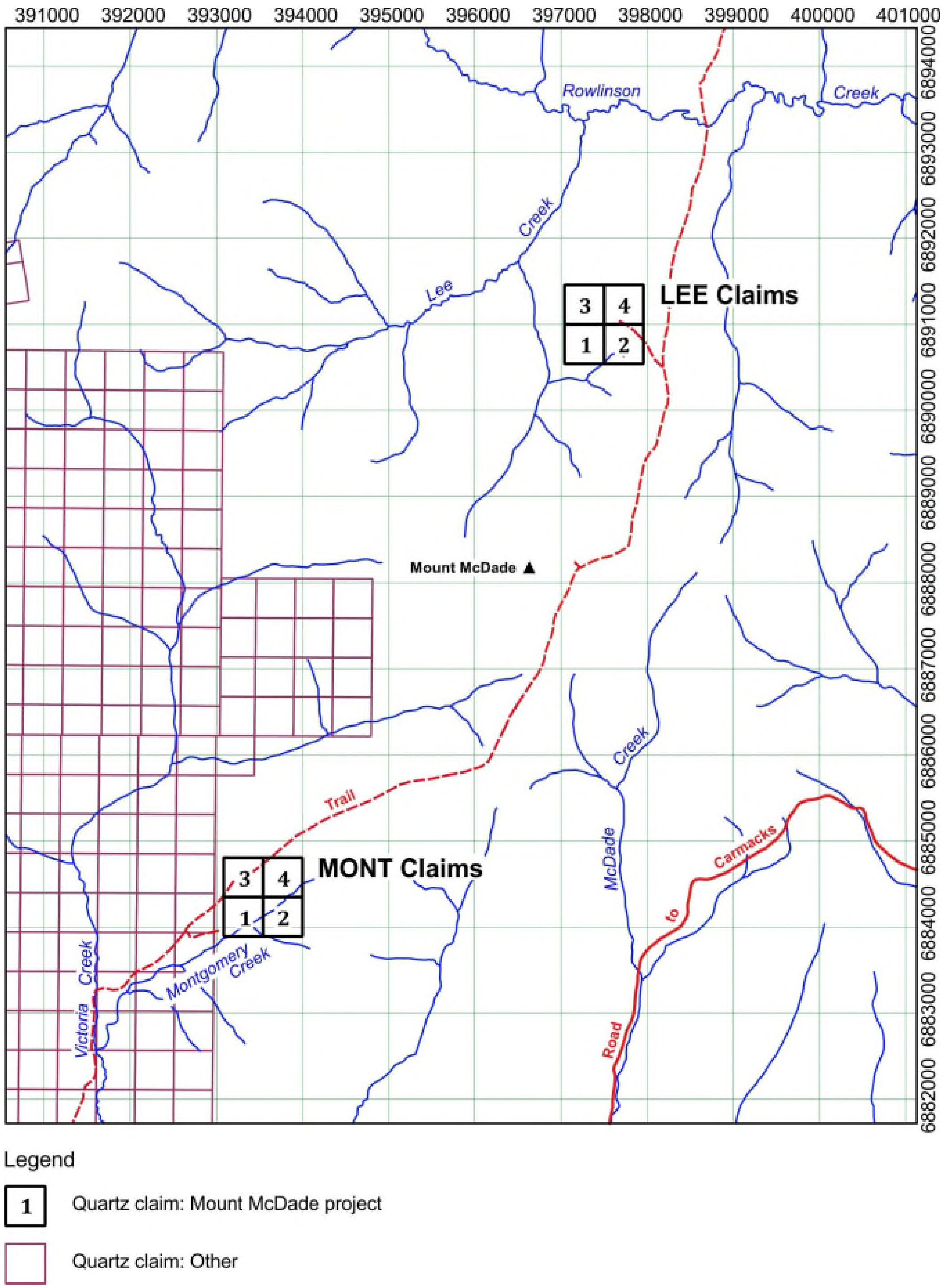


Figure 4. Quartz claims in the Mount McDade area. Base map created using Geomatics Yukon data.

Exploration History of the Mount McDade Area

Pre-1986: "Parts of the ground … have been previously staked as evidenced by old claim posts. Except for a porphyry copper geochemical exploration program described by Deighton (1974), there is no written record of prior exploration programs or mineral discoveries. Old trenches and placer workings have been located in several areas, but their history is unknown. Seasonally active placer gold production occurs along several sections of Victoria Creek. Placer deposits have apparently also been evaluated at Montgomery Creek, McDade Creek, and Lee Creek" (Keyser, 1987).

1973: "… Mr. Gordon Dickson, discovered and staked antimony-bearing float at what is now called the Lee Zone in 1973" (Keyser, 1987).

1974: Geological mapping, line cutting, geochemical soil sampling and magnetometer surveying on a small property in the Victoria Creek drainage area about 3 km west of Mount McDade. This work was undertaken for Western Mines Ltd., Belmoral Mines Ltd. and Cream Silver Mines Ltd. (Deighton, 1974).

1986: Geological mapping, geochemical sampling and air photo interpretation for Mr. Gordon Dickson by Aurum Geological Consultants Inc. (Keyser, 1987). Machine trenching by Mr. Gordon Dickson.

1987: Geological mapping and geochemical sampling for Mr. Gordon Dickson by Aurum Geological Consultants Inc. (Hulstein and Keyser, 1988). Machine trenching by Mr. Gordon Dickson.

1988: Geological mapping and geochemical sampling for Mr. Gordon Dickson by Aurum Geological Consultants Inc. (Hulstein, 1988).

1997: Soil sampling, trenching and rock sampling just east of Victoria Creek between Minnesota Creek and Montgomery Creek. Soil samples returned up to 138 ppb Au and rock samples returned up to 47 ppb Au. This area corresponds to the ANG mineral occurrence (Caryle, 1997).

Regional Geology

The Mount McDade area is located in the Yukon Tanana terrane just west of the Stikine terrane (Figure 5). A map showing the regional geology in the Mount Nansen – Mount McDade area is presented in Figure 6. The geology shown in this figure is from the northeastern part of Geological Survey of Canada Geoscience Map 292 (preliminary) by Ryan et al. (2016). The following discussion of regional geology has been extracted from the descriptive notes that accompany Geoscience Map 292.

"Bedrock exposure in this partially glaciated terrain (Duk-Rodkin, 1999) forms broad upland ridges that are dominated by extensive frost-shattered felsenmeer. Outcrops are rare in the heavily forested valleys, but are locally found along stream cuts. Bedrock geology of Mount Nansen–Nisling River area consists primarily of metamorphosed and polydeformed Paleozoic basement intruded and overlapped by relatively little-deformed Mesozoic and Cenozoic successions" (Ryan et al., 2016).

Yukon-Tanana Terrane: "The west side of the map area is dominantly underlain by polydeformed and metamorphosed Yukon-Tanana terrane (YTT), made up mainly of the pre-Devonian Snowcap assemblage. The Snowcap assemblage is characterized by amphibolite facies quartzite, micaceous quartzite and psammitic quartz-muscovite-biotite (± garnet) schist (unit PD_{S1}) and rare, decametre-thick lenses of marble (PD_{S2}). Common massive amphibolite and lesser garnet amphibolite (PD_{S3}) are interpreted as metamorphosed mafic sills and dykes

More prominent and extensive occurrences of amphibolite across the map are correlated to the Devono-Mississippian Finlayson assemblage (unit DM_{F1}). This unit is characterized by strongly foliated and compositionally layered amphibolite and garnet amphibolite. It locally interdigitates with the Snowcap assemblage and can be difficult to distinguish from unit PD_{S3}. These rock types are typically spatially associated with the Simpson Range suite (see following). We interpret a metafelsite (DM_{F3}) spatially associated with amphibolite as derived from a Finlayson assemblage felsic metavolcanic rock.

A large domain in the central part of the area is dominated by a monotonous sequence of grey to black, carbonaceous quartzite, psammite and phyllite that we correlate with the Stevenson Ridge schist (unit M_{SRS}; *see* Ryan et al., 2014). The unit is interpreted as Late Devonian to Early Mississippian because it is intruded by the Mississippian Simpson Range suite. The unit is distinguished from the Snowcap assemblage by its carbonaceous composition, though carbonaceous horizons do occur in unit PD_{S1}. Elsewhere in YTT, similar carbonaceous metasedimentary rocks are grouped in the Finlayson assemblage. The interstratification of light grey to beige marble (unit DM_{F2}) and general proximity to the DM_{F1} possibly supports a similar interpretation here.

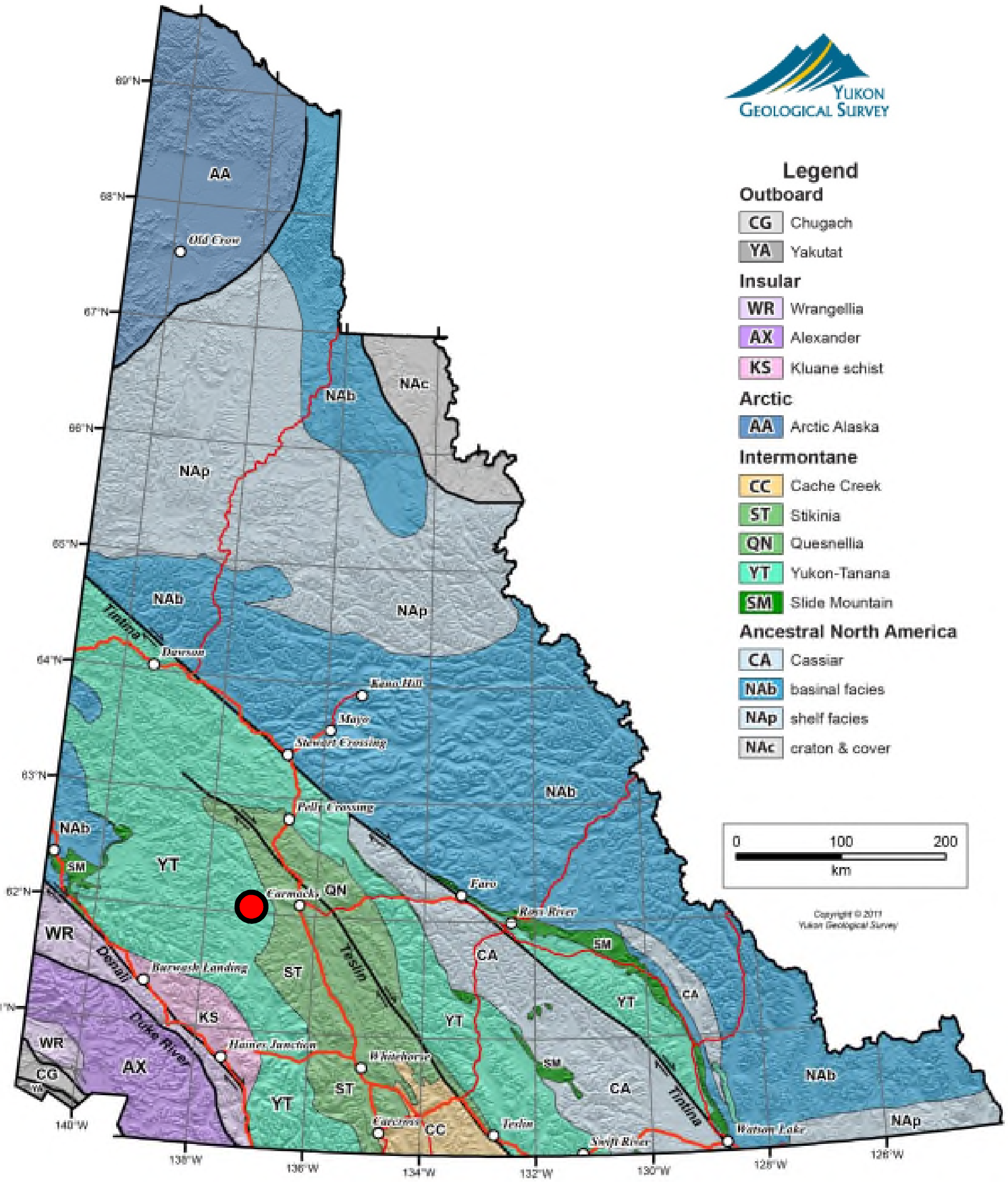
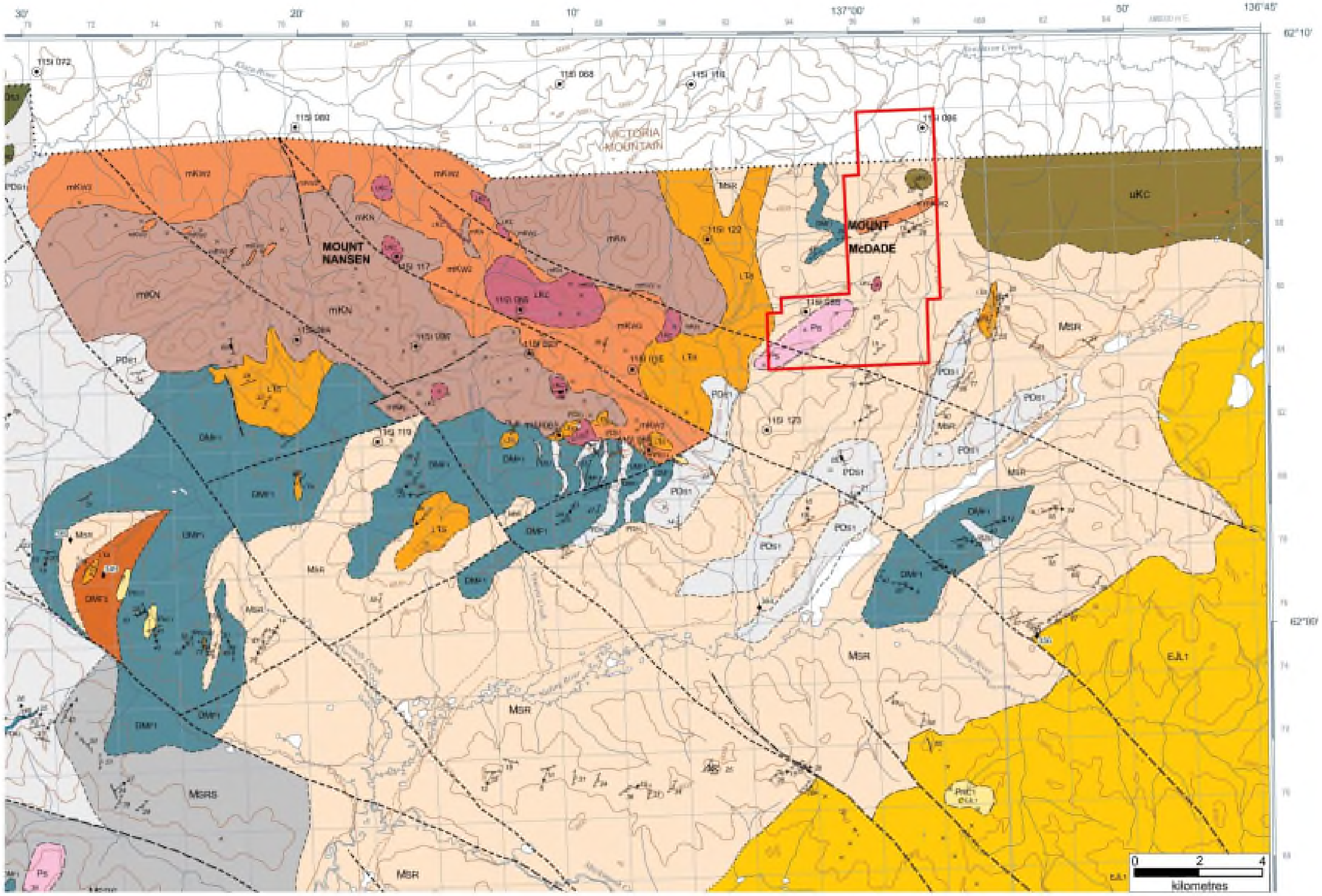
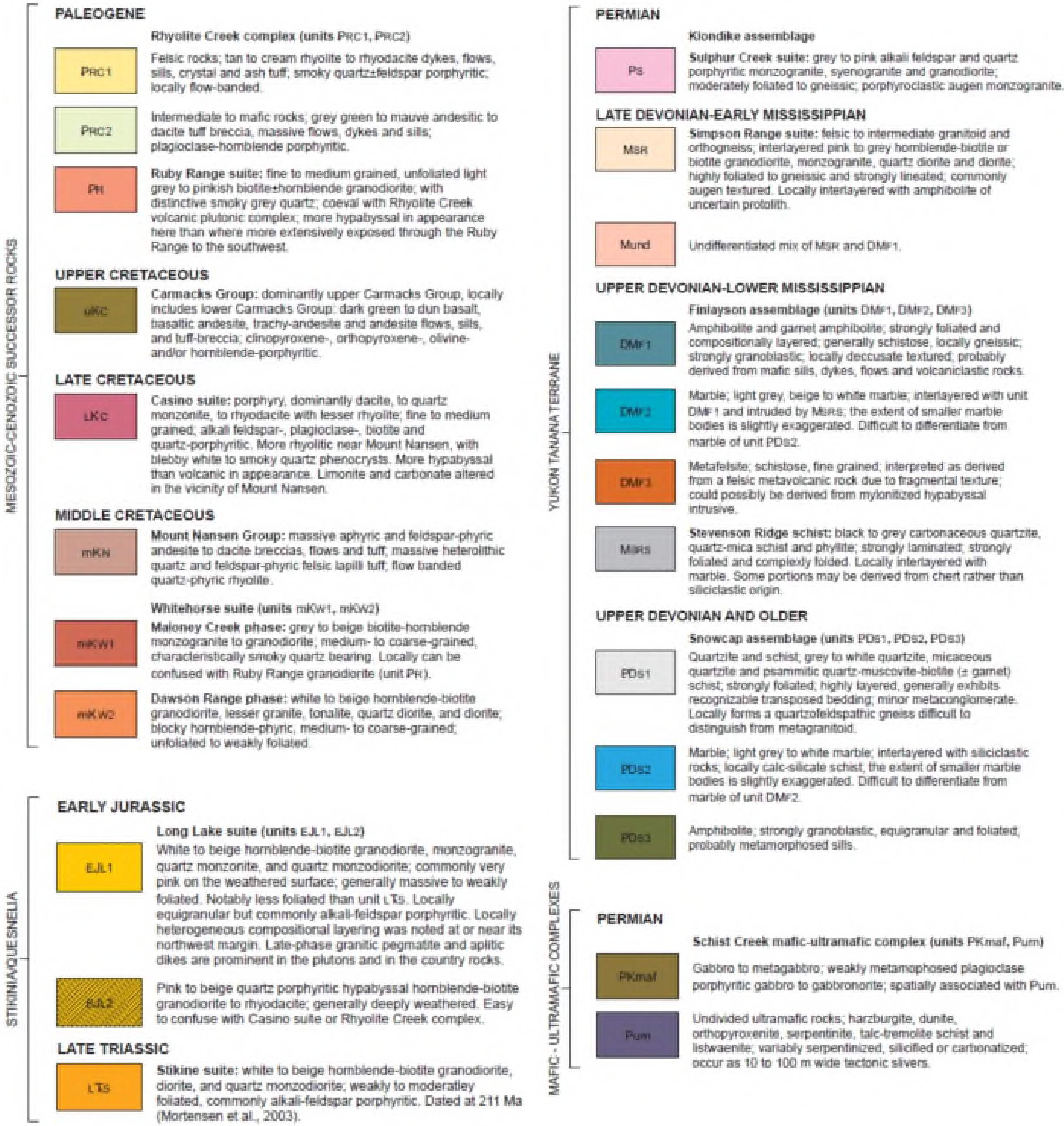


Figure 5. Yukon terrane map (Colpron and Nelson, 2011). The location of the Mount McDade area is indicated by the red dot.



Regional geology of the Mount Nansen - Mount McDade area. Geology map from Ryan et al. (2016). Areas of 2017 exploration work fall within the red outline. See following page for geology legend. Map projection: Universal Transverse Mercator, Zone 8, North American Datum 1983.

Figure 6.



Legend for Regional Geology Map

Much of the eastern half of the map area is dominated by the Early Mississippian Simpson Range suite (unit M_{SR}) constrained by a single preliminary age of ca. 356 Ma (W. McClelland, unpublished data). The Simpson Range suite is characterized by highly foliated to gneissic hornblende-biotite and biotite granodiorite to intermediate orthogneiss, and is commonly K-feldspar augen textured.

The Snowcap and Finlayson assemblages are intruded by sporadic K-feldspar porphyritic to porphyroclastic augen granite that we correlate with the Permian Sulphur Creek suite (unit PS), one of which yielded a preliminary age of ca. 264 Ma (D. Kellett, unpublished data)" (Ryan et al., 2016).

Stikinia/Quesnellia: "The Stikine plutonic suite (unit LTS) is only exposed in the area in the vicinity of Mount Nansen, and is characterized by weakly to moderately foliated white to beige hornblende-biotite granodiorite, diorite, and quartz monzodiorite; it is commonly alkali-feldspar porphyritic. A sample dated by Mortensen et al. (2003) yielded an age of 211 Ma. Younger Mesozoic rocks in the area lack evidence of regional polyphase deformation and metamorpism.

The eastern side of the map area is dominated by the Aishihik batholith, which is composed of massive to weakly foliated white to beige hornblende-biotite granodiorite, monzogranite, quartz monzonite, and quartz monzodiorite of the Long Lake suite (unit $_{E}J_{L1}$). The Long Lake suite rocks are commonly very pink on the weathered surface. They are locally equigranular but commonly alkali-feldspar porphyritic. There is localized compositional layering at or near the northwest margin of the batholith. Hypabyssal phases of the suite (unit $_{E}J_{L2}$) are characterized by small, deeply weathered occurrences of pink to beige quartz porphyritic hornblende-biotite granodiorite to rhyodacite. This phase is similar to the younger Casino suite or Rhyolite Creek complex (see below). Late-phase granitic pegmatite and aplitic dikes are prominent in the plutons and in the country rocks. The Long Lake suite has a well-constrained age range of between 190 and 180 Ma (Joyce et al., 2016)" (Ryan et al., 2016).

Mesozoic-Cenozoic successor rocks: "Middle Cretaceous to Eocene successor magmatic rocks are common in the area. Mount Nansen is underlain by a well preserved mid-Cretaceous aphyric and feldspar-phyric andesite to dacite breccias, flows and tuffaceous rocks of the Mount Nansen Group (mK_N). Heterolithic quartz and feldspar-phyric felsic lapilli tuff, and rare flow-banded quartz phyric rhyolite are less abundant. The group has yielded U /Pb ages ranging between 110 and 105 Ma (Klocking et al., 2016) making it comagmatic with the Whitehorse plutonic suite.

The Middle Cretaceous Whitehorse plutonic suite is represented by two distinct phases in the map area. The voluminous Dawson Range phase (unit mK_{W2}) is exposed around Mount Nansen, and is composed of white to beige, hornblende-biotite granodiorite and lesser granite, tonalite, quartz diorite, and diorite (108–105 Ma: Mortensen et al., 2003, 2016). It is characteristically blocky hornblende-phyric and medium- to coarse-grained, and weakly foliated to unfoliated. The western side of the map hosts the easternmost occurrences of the Maloney Creek phase (unit mK_{W1}) of the Whitehorse suite, and comprises grey to beige biotite-hornblende monzogranite to granodiorite. It is medium- to coarse-grained, unfoliated, and is smoky quartz bearing. The Maloney Creek phases has yielded U /Pb and Ar-Ar age of ca. 105 Ma (W. McClelland, unpublished data).

The late Cretaceous Casino suite (unit $_{L}K_{C}$) is represented in the area by small scattered occurrences of porphyritic dacite to rhyolite. It is generally fine to medium grained; alkali feldspar-, plagioclase-, biotite and quartz-porphyritic. More rhyolitic occurrences near Mount Nansen exhibit blebby white to smoky quartz phenocrysts, is more hypabyssal than volcanic in appearance, and is limonite and carbonate altered. The Casino suite typically ranges in age from ca.73 to 78 Ma (e.g. Selby and Creaser, 2001; Bennett et al., 2010; Mortensen et al., 2016).

The Late Cretaceous Carmacks Group (unit $_{U}K_{C}$; ca. 70–69 Ma), is present in the very northeast corner of the map area. It comprises an intermediate to mafic volcanic and volcaniclastic lower sequence, and a more mafic, flow-dominated upper sequence.

The Paleogene Rhyolite Creek complex (unit P_{RC}; ca. 59–56 Ma: N. Joyce, unpublished data; J. Crowley, unpublished data) constitute small erosional remnants of felsic and intermediate volcanic and hypabyssal rocks dominantly in the southwest part of the area …. The felsic rocks are predominant and comprise smoky quartz feldspar porphyritic, and locally flow-banded tan to cream rhyolite to rhyodacite dykes, flows, sills, crystal and ash tuff. Intermediate to mafic rocks are less abundant and comprise grey green to mauve plagioclase-hornblende porphyritic andesitic to dacite tuff breccia, massive flows, dykes and sills. Two samples from this suite in the map area yielded ages between 57–58 Ma (W. McClelland, unpublished data).

The Ruby Range suite (unit P_{R}) is characterized by fine to medium grained, unfoliated light grey to pinkish biotite±hornblende granodiorite with typical smoky grey quartz and is coeval with the Rhyolite Creek complex" (Ryan et al., 2016).

Structural Geology: "The structural geology of the map area is typical of the Yukon-Tanana terrane in western Yukon and is characterized by at least two phases of isoclinal folding and development of transposition foliation. The main foliation observed in these rocks developed at upper greenschist-amphibolite facies conditions and may represent a second generation fabric. This regionally pervasive foliation is present in Permian and older rocks, and may have developed in the Late Permian (e.g. Berman et al., 2007). This dominant foliation is itself deformed locally by less pervasive open F3 and F4 folds. The contrast in deformation character between the Stikine suite, the Long Lakes Suite and the Mississippian to Permian rocks indicates that the main foliation in the Paleozoic rocks is pre-Late Triassic, and a weak to moderate foliation in the Stikine suite which is lacking in the Long Lake suite indicates a regional deformation also occurred in the Late Triassic to early Jurassic time. A significant difference in the character of the main foliation in the map area is that it is dominantly northeast-trending, in significant obliquity to the main foliation across much of western Yukon which is typically northwest trending. We interpret this as a consequence of Mesozoic folding of the late Paleozoic fabric" (Ryan et al., 2016).

"Northwest trending faults are prominent in the aeromagnetic data…. These structures offset the margin of the 190–180 Ma Aishihik batholith, and also appear to help control the distribution of the Mount Nansen Group, indicating that these faults are mid-Cretaceous or younger. These structures appear to be overlain by the Paleogene Rhyolite Creek complex. At Mount Nansen, the complex interplay between … faults appears to expose different levels of the mid-Cretaceous rocks such that Mount Nansen Group may be exposed in grabens, and the Dawson Range phase granodiorite in horsts. The only occurrences of the Stikine plutonic suite in this area may be confined to one or more of the horsts" (Ryan et al., 2016).

Regional Mineralization

A map showing mineral occurrences in the Mount Nansen area, from Turner and Dumula (2017), is presented in Figure 7.

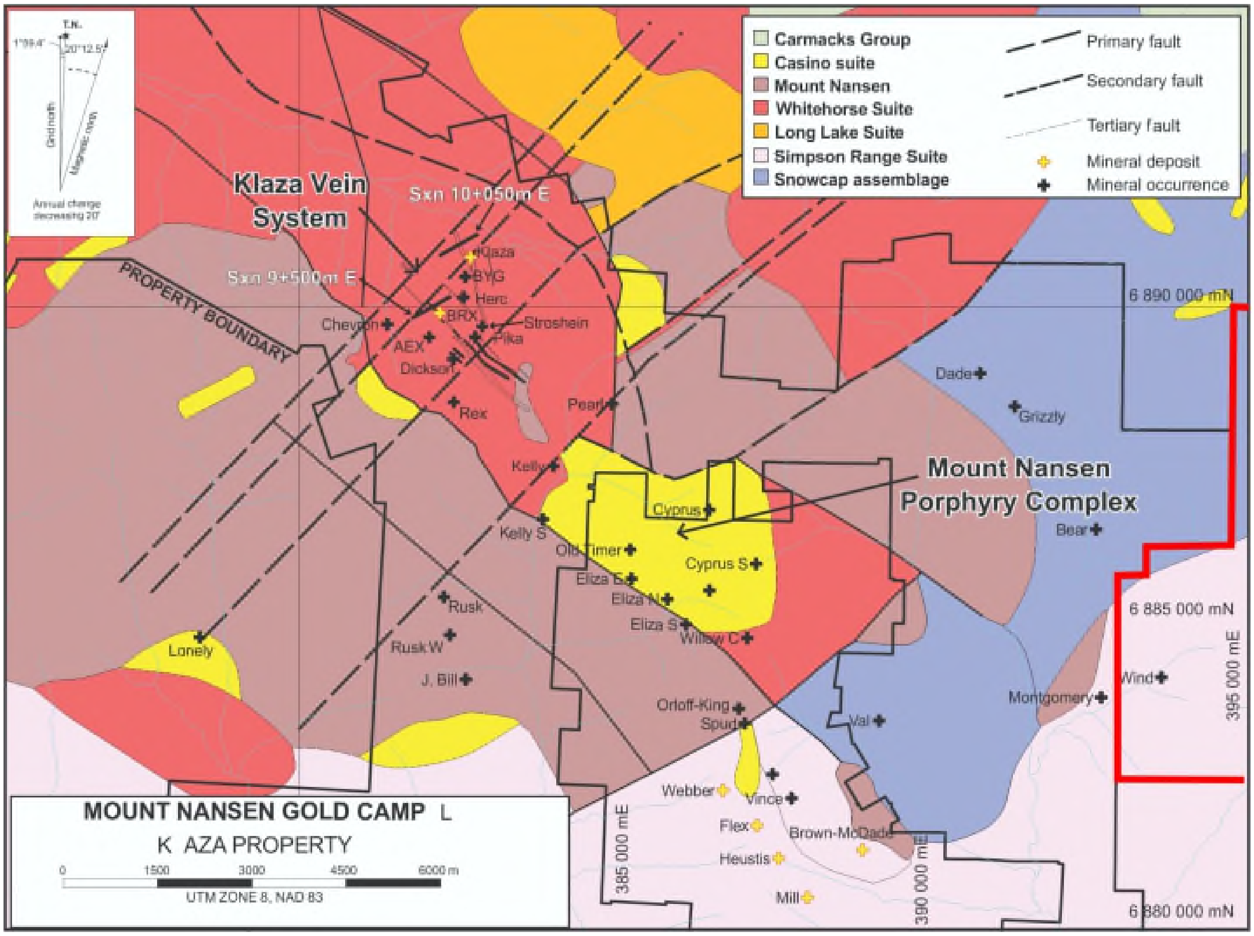


Figure 7. Geology and mineral occurrences in the Mount Nansen area. From Turner and Dumala (2017). The western boundary of the Mount McDade target area is shown by the heavy red line. Note that the Montgomery and Wind occurrence are shown too far west. Also, the unit identified as the Snowcap assemblage (blue) is elsewhere identified as the Stikine Suite (see Figure 1 of Turner and Dumala (2017) and Ryan et al. (2016)).

"The main mineral occurrences in the map area are porphyry to epithermal style that are concentrated around Mount Nansen, and appear to be most strongly linked to the late Cretaceous Casino suite (e.g. Klaza, Cyprus; see Hart and Langdon, 1998; Mortensen et al., 2016). A number of Casino suite plugs and hypabyssal intrusions are newly recognized on the current map suggesting further potential for mineralization" (Ryan et al., 2016).

“The Mount Nansen Gold Camp has been explored by various operators for about 100 years. It hosts more than 30 mineral occurrences of epithermal and porphyry origin. The most noteworthy example is the Brown-McDade deposit, which had a pre-production drill-indicated reserve of 600,000 tonnes at 6.1 g/t gold and 55.5 g/t silver. Production from a 500 m long open pit at the Brown-McDade deposit in 1996 and 1997 yielded 16,000 ounces gold and 83,000 ounces silver from 124,000 tonnes of ore (Hart and Langdon, 1997).

Two types of mineralization were mined at the Brown-McDade deposit. The first type is a quartz vein system hosted by a feldspar-porphyry dyke, which intruded along a contact between igneous and metamorphic rocks …. The second type comprises a pipe-like breccia body within the metamorphic rocks…. Original exploration focused on northwest-trending fault-controlled veins; however, the discovery of orthogonal veins and breccia bodies spurred additional exploration. Narrow vein systems elsewhere on the Mount Nansen property are hosted by metamorphic rocks….” (Smith, 2011).

“According to Hart and Langdon (1997), there are three dominant structural orientations within the Mount Nansen Gold Camp. The main structural orientations are: 1) a northwesterly trend; 2) a 020º series; and 3) an east-northeasterly trend. The northwesterly trending zones are continuous and form wide zones with numerous faults that host porphyry dykes and mineralized veins. This trend has vertical dips and strike-slip movement. The 020º series is characteristically discontinuous and lacks intense shearing. These structures typically terminate or curve sharply into the northwest trend, which creates an important junction where larger, wider ore bodies occur. In the Brown-McDade open pit, six to ten 020º veins each 0.2 to 3.0 m in width intersect the main vein creating a blowout effect. The third set is expressed as faults, fractures and joints, which trend between 050 and 080º.

In 2010, a new gold-silver vein and breccia discovery was made within the Mount Nansen Gold Camp at Rockhaven Resources Ltd.’s Klaza Property. Mineralization at Klaza is associated with multiple episodes of intrusive activity, specifically related to late stage quartz-feldspar porphyry dykes intruding Mid-Cretaceous Whitehorse Suite granodiorite” (Smith, 2011).

“Drilling at the Klaza property has identified mineralized zones and numerous subsidiary structures, which are part of an epithermal to porphyry system. The majority of these zones are hosted within a 2.5 km long and 1.8 km wide structural corridor hosted by mid-Cretaceous granitoid rocks…. The property has an inferred resource estimate of 9 421 000 tonnes containing 1,358,000 oz gold at 4.19 g/t and 26,962,000 oz silver at 89.02 g/t (Ross et al., 2016b)” (Turner and Dumula, 2017).

“Within the Mount Nansen camp the majority of the larger epithermal veins “…are northwest-trending and dip steeply to the west. The hanging wall is typically a fault. Fault zones host as many as four veins which typically contain brecciated wall-rock and brecciated quartz fragments.

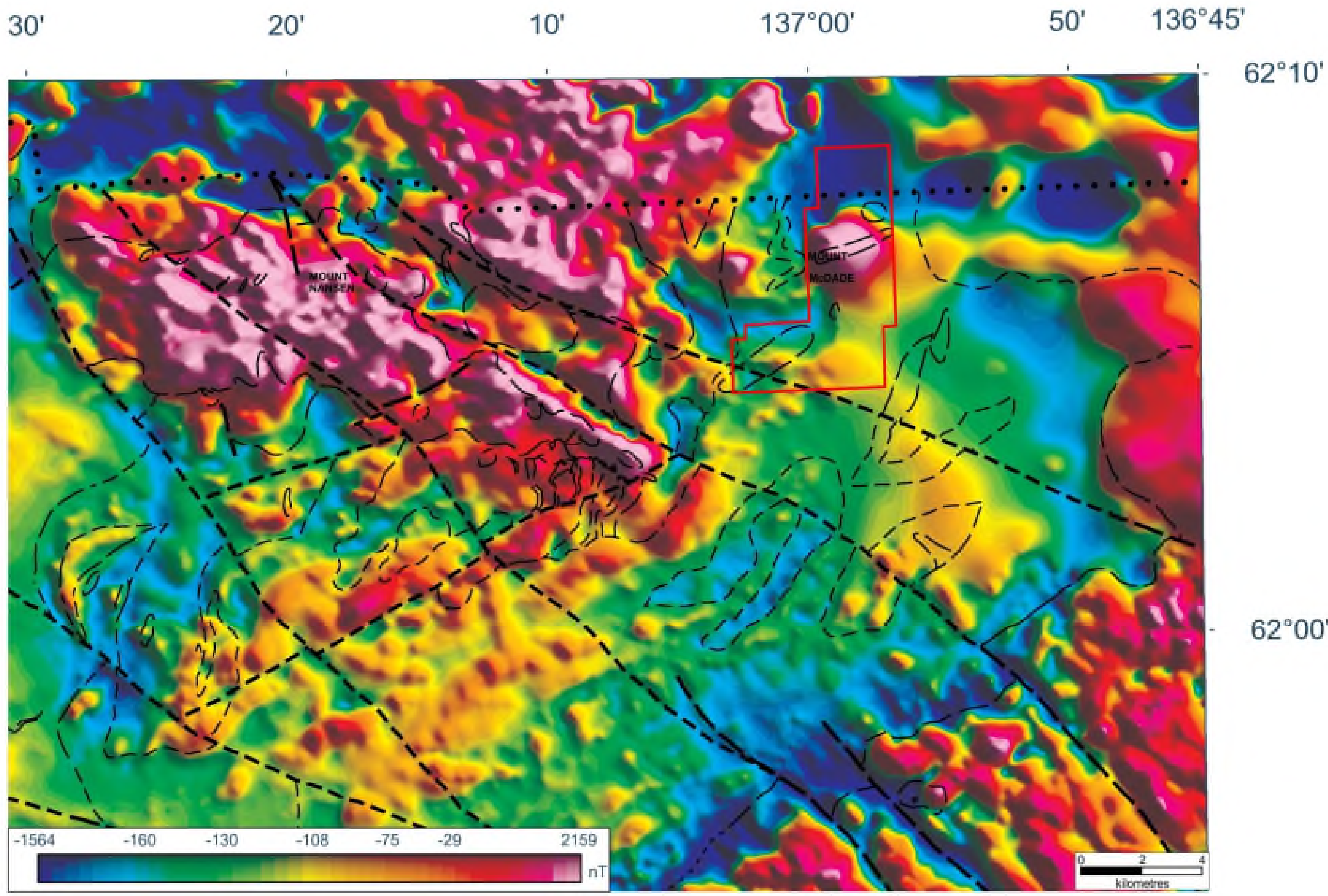
Ore mineralogy varies between the veins but most are dominated by pyrite, arsenopyrite, galena and sphalerite with lesser stibnite, chalcopyrite, bornite, tetrahedrite and later sulphosalts.

Most veins are enveloped by bleached alteration zones that are up to 10 m wide. The extent and width of the alteration is dependent on the host rock. Granodiorite host rocks are the most extensively altered; andesite is less altered. Argillic alteration is predominant, indicated by kaolinite and illite, with lesser montmorillonite. Phyllic alteration is common but is less extensive and much less well developed in the metamorphic rocks than it is in the granitic rocks. Phyllic alteration is characterized by alteration to sericite, silicification and suphidization with disseminated pyrite…. Metamorphic rocks are most resistant to alteration but become bleached.

The depth of oxidation varies considerably, from as little as 5 m on north-facing slopes, to as deep as 150 metres within faults and shear zones. Scorodite, limonite and melanterite staining is typical in oxidized veins. Manganese wad is extensive along the vein perimeters. In many cases, the alteration zones are extensively oxidized, but the quartz vein may not be" (Hart and Langdon, 1997).

Regional Magnetic Response

A map showing total field magnetic data acquired by an airborne survey is shown in Figure 8. The area shown in Figure 8 corresponds to the area shown in the regional geology map (Figure 6). Within the Mount Nansen area, west of the Mount McDade area, strong positive magnetic responses correspond to areas underlain by the Mount Nansen Group and, to a somewhat lesser extent, the Casino suite and the Whitehorse suite. A prominent, circular magnetic anomaly (high) approximately 2 km across is located near Mount McDade. Based on the map of Ryan et al. (2016), outcrop near the centre of this magnetic anomaly corresponds to the Dawson Range phase of the Whitehorse suite.



Total field aeromagnetic map of the Mount Nansen - Mount McDade area (from Ryan et al., 2016). Heavy dashed lines are faults and the light dashed lines are geological contacts. Areas of 2017 exploration work (this report) fall withing the red outline. Map projection: Universal Transverse Mercator, Zone 8, North American Datum 1983.

Figure 8.

Geology of the Mount McDade Area: Previous Work

Figure 9 shows the geological mapping of Ryan et al. (2016) within the Mount McDade area. Most of the area is underlain by the Mississippian Simpson Range suite consisting of foliated to gneissic granodiorite, monzogranite, quartz diorite, diorite and orthogneiss. Three younger igneous bodies are also shown within the target area:

- the Sulphur Creek suite of the Permian Klondike assemblage (moderately foliated to gneissic porphyritic monzogranite, syenogranite and granodiorite),
- the Dawson Range phase of the Whitehorse suite (unfoliated to weakly foliated granodiorite, granite, tonalite, quartz diorite and diorite), and
- a small body of Casino suite rocks (hypabyssal to volcanic dacite porphyry, quartz monzonite, rhyodacite, rhyolite).

The geological map of Hulstein (1988) indicates that dacite of Mount Nanson Group occurs west of the Lee Zone. This area lies north of the geological mapping presented by Ryan et al. (2016).

Geophysics of the Mount McDade Area: Previous Work

Figure 10 shows the total field airborne magnetic data of Ryan et al. (2016) within the Mount McDade area. Of particular interest is the strong, positive magnetic anomaly centred just east of Mount McDade. The area of strong magnetic response is about 2 km across and the centre of the anomaly is underlain by rocks mapped by Ryan et al. (2016) as an intrusion of the Dawson Range phase of the Whitehorse suite. Three zones of alteration and/or mineralization and/or anomalous soil geochemistry (discussed below) lie near the margins of this magnetic anomaly (the Wind Zone, the Red Trench Zone and the Lee Zone).

There is no record of ground geophysical surveys having been completed in the Mount McDade area.

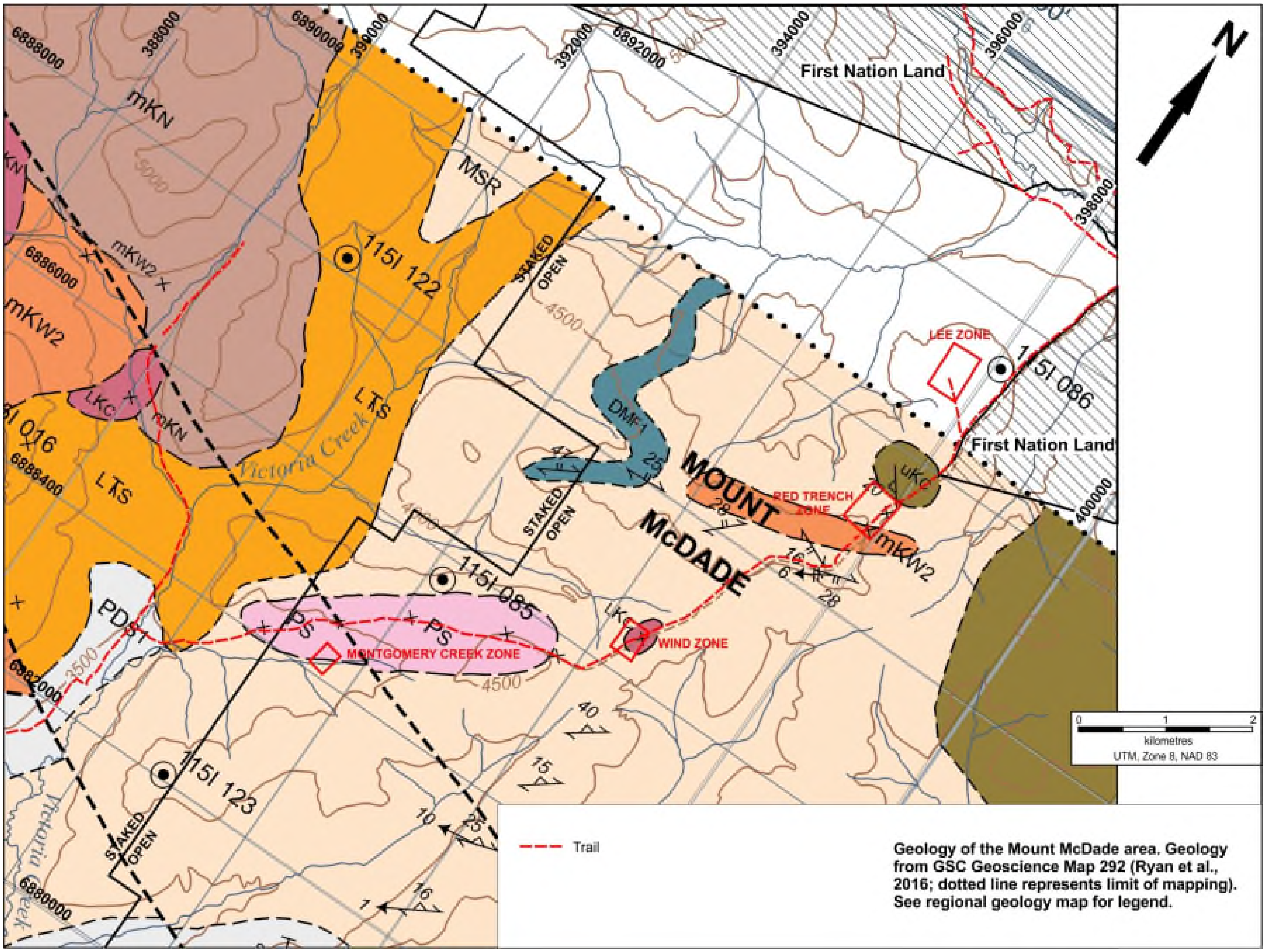
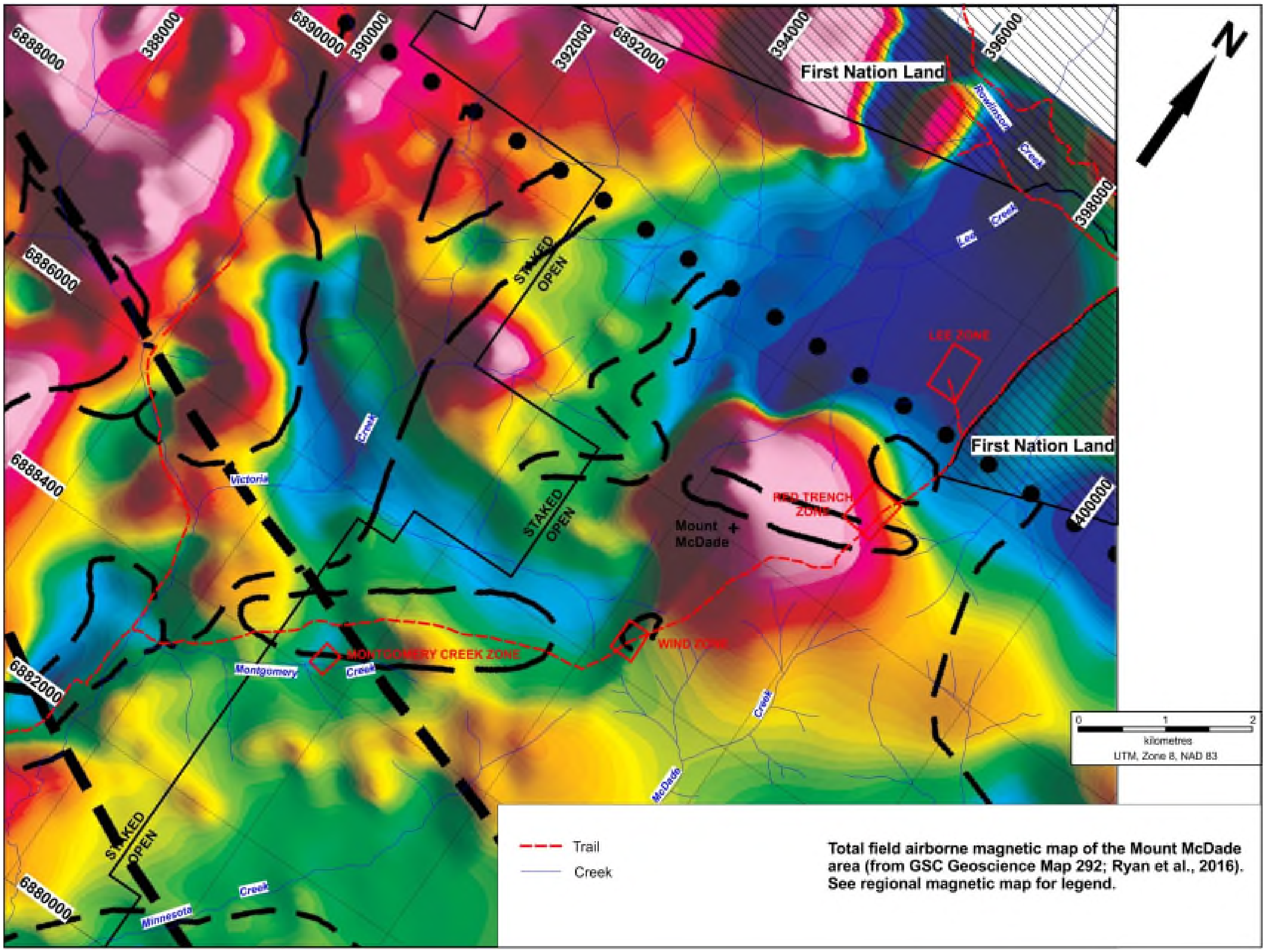

First Nation Land
First Nation Land
mKN
mKW2
LTS
MSR
115I 122
115I 085
115I 123
115I 086
STAKED
OPEN
DMF
MOUNT
McDADE
RED TRENCH ZONE
LEE ZONE
WIND ZONE
MONTGOMERY CREEK ZONE
Victoria Creek
PS
uKC
LKC
kilometres
UTM, Zone 8, NAD 83
Trail
Geology of the Mount McDade area. Geology from GSC Geoscience Map 292 (Ryan et al., 2016; dotted line represents limit of mapping). See regional geology map for legend.

Figure 9.



Total field airborne magnetic map of the Mount McDade area (from GSC Geoscience Map 292; Ryan et al., 2016). See regional magnetic map for legend.

Figure 10.

Mineralization, Alteration and Geochemistry in the Mount McDade Area: Previous Work

Mineral exploration in the 1980's identified four anomalous zones, based on mineralization, alteration, rock geochemistry and/or soil geochemistry, within the Mount McDade area (Figure 9).

Montgomery Creek Zone

"The Montgomery Creek Zone … consisting of quartz sulphide float was found by Mr. B. Sauer in 1988 while prospecting placer trenches adjacent to Montgomery Creek. The fresh appearing grey silicified andesite and quartz contains up to 15% disseminated pyrite, and trace to 1% fine grained galena & arsenopyrite. Three samples of this float returned between 5915 ppb (low sulphide content) and 15650 ppb (high sulphide content) gold with a strong correlation between gold and sulphide content. Silver values ranged from 8.8 to 132.5 ppm and displayed a similar correlation with sulphide content. Arsenic and antimony were also strongly anomalous with values up to 14242 ppm and 2723 ppm respectively" (Hulstein, 1988, p. 16). In addition, these samples returned up to 5693 ppm Pb, 2331 ppm Cu, 5850 ppm Zn, 59 ppm Bi, 0.82% Mn and 2.75% Ca (using a partial extraction technique). No Hg data are available. The elevated Ca content suggests the gold may be associated with carbonate. Sample descriptions are presented in Table 2 and a sketch of the Montgomery Creek Zone is shown in Figure 11.

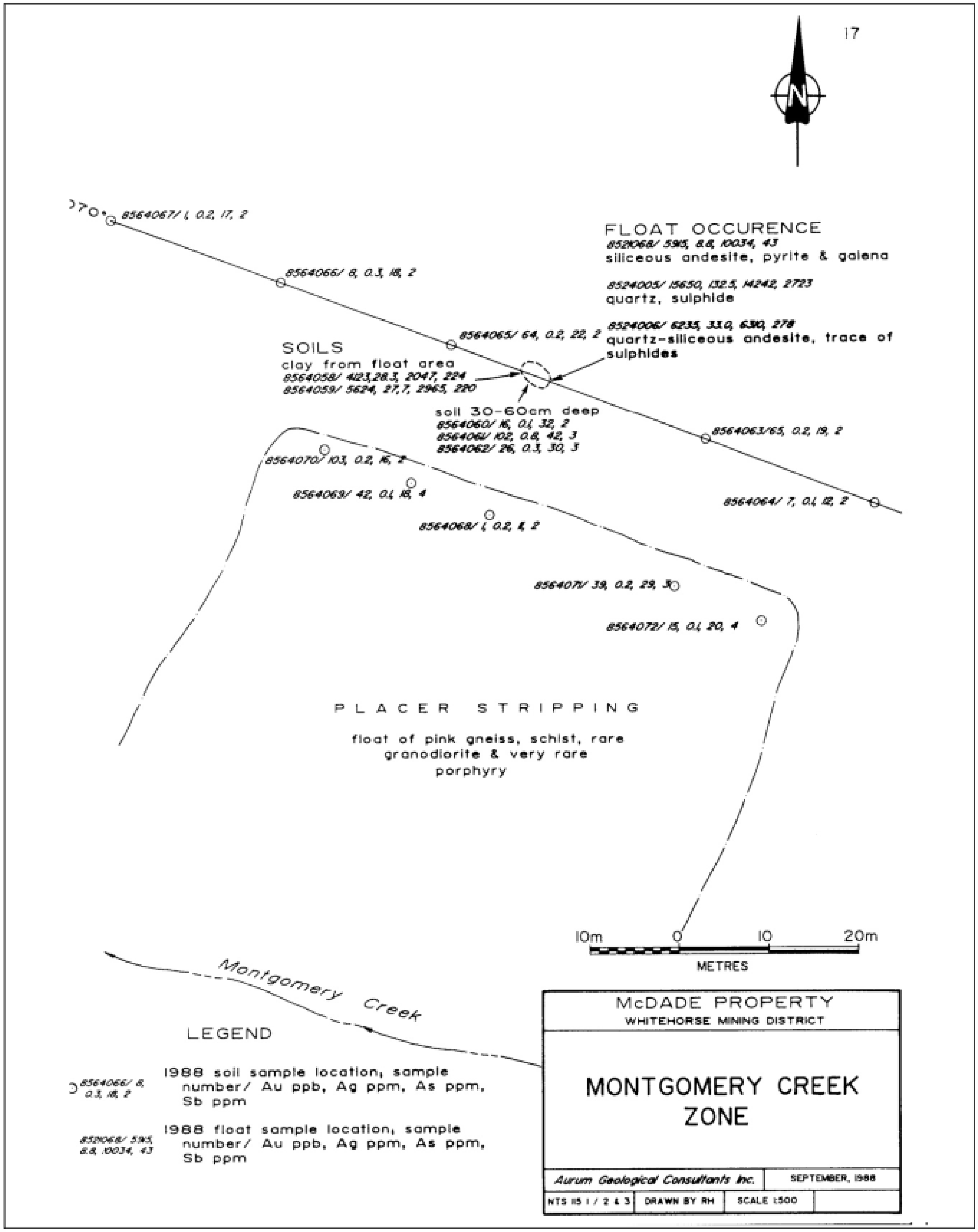
Sample	Au ppb	Ag ppm	Pb ppm	As ppm	Sb ppm	Cu ppm	Zn ppm	Bi ppm	Description
8521068	5915	8.8	155	10034	43	155	2393	15	Silicified andesite-quartz boulder, disseminated pyrite 15-20%, arsenopyrite 2%, galena 1%.
8524005	15650	132.5	5693	14242	2723	2331	5850	59	Fresh angular quartz sulphide boulder, med-dark grey to white quartz with 15% irregular disseminated patches of fine grained pyrite, <1% galena + arsenopyrite. Boulder cut by grey quartz veinlets, 5% anhedral pink & white feldspar crystals.
8524006	6235	33.0	574	6310	278	453	1783	21	Same as 18524005 except trace amounts of arsenopyrite & galena.

Table 2. Montgomery Creek Zone rock (float) samples.

"The quartz sulphide float was found in low mounds (<0.3m) of clay-rich soil" (Hulstein, 1988, p. 16). Two samples of this material returned up to 5624 ppb Au, 28.3 ppm Ag, 2965 ppm As, 224 ppm Sb, 2251 ppm Pb, 564 ppm Cu, 3065 ppm Ag, 3065 ppm Zn, 22 ppm Bi, 0.24% Mn and 1.78% Ca (Table 3).

Sample	Au ppb	Ag ppm	Pb ppm	As ppm	Sb ppm	Cu ppm	Zn ppm	Bi ppm	Description
8564058	4123	28.3	2251	2047	224	564	3065	17	Clay.
8564059	5624	27.7	1963	2965	220	458	2106	22	Clay.

Table 3. Montgomery Creek Zone clay-rich soil samples.



Sketch of the Montgomery Creek Zone from Holstein (1988).

Figure 11.

Of the 13 soil samples collected in the immediate vicinity, 7 returned >35 ppb Au (up to a maximum of 103 ppb Au). All 13 samples yielded >10 ppm As to a maximum of 42 ppm As.

"The source of the float, found above the A0 horizon, could not be located ... As the area was disturbed by placer miners, the possibility that the anomalous clay and rock was somehow transported by a bulldozer should not be overlooked" (Hulstein, 1988, p. 16).

The gold-rich float is located on a south facing slope about 70 m north of Montgomery Creek (Figure 11). Rock samples 8521068 and 8524005 are both described as having been obtained from boulders (the source of sample 8524005 (15.65 g/t Au) is described as an angular boulder). The low mounds of "clay-rich soil" that the float was found in are strongly anomalous in the same suite of elements as the float (including up to 5.62 g/t Au), which strongly indicates a common origin. This author considers it probable that the gold-rich float and gold-rich clay mounds represent colluvium excavated from depth during stripping and trenching operations associated with placer exploration.

Exploration follow-up consisted of the collection of 13 soil samples within an area of about 90 by 20 m in the immediate vicinity of the gold-rich float. No sampling was undertaken up slope from the float (the nearest soil samples in an up slope direction were collected about 500 m to the north).

Lee Zone

The Lee Zone corresponds to the Rowlinson showing of the Yukon Geological Survey. A sketch of the Lee Zone displaying gold values in rock samples is presented in Figure 12.

"First discovered in 1973 by Mr. Gordon Dickson, the Lee Zone … is characterized by quartz-stibnite-chalcedony-jasperoid breccia boulders, containing up to 10% stibnite, hosted by altered schist and quartzite. There is no outcrop in the area but the distribution of mineralized float follows a north trend" (Hulstein, 1988, p. 13)

"In excess of 800 meters of relatively shallow (less than 2 meters deep) bulldozer trenching was completed during the 1986 field season" (Keyser, 1987, p. 11). Bedrock was not exposed by trenching.

"Results show rock values ranging from 40 to 950 ppb gold…. Most of the anomalous gold values are coincident, though not restricted, with high antimony and mercury. Soils are anomalous in antimony (up to 140 ppm) and mercury (up to 1820 ppb) where stibnite-bearing float was found; gold ranges up to 25 ppb." (Keyser, 1987, p. 11).

"Wallrock alteration appears to consist of variable argillization, bleaching, hematite staining, and minor silicification, though it is difficult to recognize because of supergene weathering and older (?) metamorphism. Vein-type quartz and clay-altered andesite (?) porphyry have been found in the immediate Lee Zone area." (Hulstein, 1988, p. 14).

A table showing geochemical results for 16 rock samples collected in 1986 from the Lee Zone is presented in Table 4. Most of the samples are of quartz-rich material that commonly contains stibnite. The highest gold value (0.95 g/t Au, sample 265023) is from a sample of quartz-stibnite breccia that also returned 0.49% Sb and 5000 ppb Hg. Interestingly, the second highest gold value (0.85 g/t Au, sample 265022) is from an intensely clay altered andesite (?) porphyry with only minor quartz veinlets.

■ Float sample: 400 - 950 ppb Au

■ Float sample: 20 - 399 ppb Au

□ Float sample: <20 ppb Au

■ Quartz-stibnite breccia float (no geochemical data)

Lee Zone: Gold in rock samples
after Keyser (1987) and Hulstein (1988)

Figure 12.

Sample	Au ppb	Ag ppm	As ppm	Sb ppm	Sb % rerun	Hg ppb	Description
264001	440	0.2	16	3		490	Quartz-sericite breccia. Quartz cockscomb texture. Clay alteration.
265001	90	<0.1	82	320		>5000	Silicified lithic breccia with weak fabric. Minor Mn and Sb (?) staining on fractures. Vuggy. Minor chalcedonic fracture fillings. One piece found 5x10x10 cm. Wall rock here is apparently light green sericitized quartzite.
265002	50	<0.1	28	16		2220	Vuggy pink siliceous material; possible quartz vein.
265003	60	<0.1	8	18		150	Massive white bull quartz. Minor hematite staining on fractures.
265004	90	<0.1	6	>5000	1.96	>5000	Vuggy brecciated light green quartzite. Chalcedonic and cockscomb quartz veinlets. Stibnite on fractures.
265005	50	<0.1	30	5000	0.32	>5000	Chalcedonic breccia in quartzite. Vuggy, minor stibnite.
265006	45	<0.1	22	1100		>5000	Porous textured quartz with intergrown crystals. Rusty coloured.
265007	40	<0.1	14	24		5000	Chalcedonic-quartz breccia.
265008	70	<0.1	28	>5000	1.04	>5000	Brecciated quartz vein-type material. Massive stibnite veinlets to 1 cm totalling 10%.
265009	550	<0.1	8	5000	2.32	3200	Quartz-stibnite breccia with lithic (mainly quartzite) fragments. Very abundant at this location. Wall rock appears to be banded quartzite.
265010	45	<0.1	28	>5000	0.79	>5000	Quartz-chalcedony-lithic breccia. <1% stibnite. One piece found 5x5x5 cm.
265020	55	0.1	76	42		110	Vuggy rusty Mn-stained quartz float. Selected chips from otherwise bland bull quartz vein.
265021	50	<0.1	10	9		1450	Locally vuggy, brecciated white bull quartz.
265022	850	<0.1	12	6		1080	Intensely clay altered andesite (?) porphyry. Light grey-brown colour. Minor quartz veinlets. Fe and Mn on fractures.
265023	950	<0.1	4	>5000	0.49	5000	Quartz-stibnite breccia. Vuggy. Minor chalcedony and stibnite.
265024	70	<0.1	4	18		2200	Quartz-chalcedony breccia. 90% quartz/10% chalcedony. No sulphides noted, but minor yellowish Sb (?) staining. Vuggy.

Table 4. Lee Zone rock (float) samples.

Rhyolite, dacite, and vein type quartz float found 800 meters to the west of the Lee Zone has returned up to 220 ppb Au, 68 ppm As and >5000 ppb Hg (Keyser, 1987; Hulstein , 1988).

The distribution of antimony in soil samples from the Lee Zone area is shown in Figure 13. A strong Sb anomaly with up to 661 ppm Sb in soil has been detected in the southern part of the sampled area. This anomaly corresponds to an area of abundant quartz-stibnite float that returned up to 0.55 g/t Au. The soil anomaly, which is up to 75 m wide, remains open to the south.

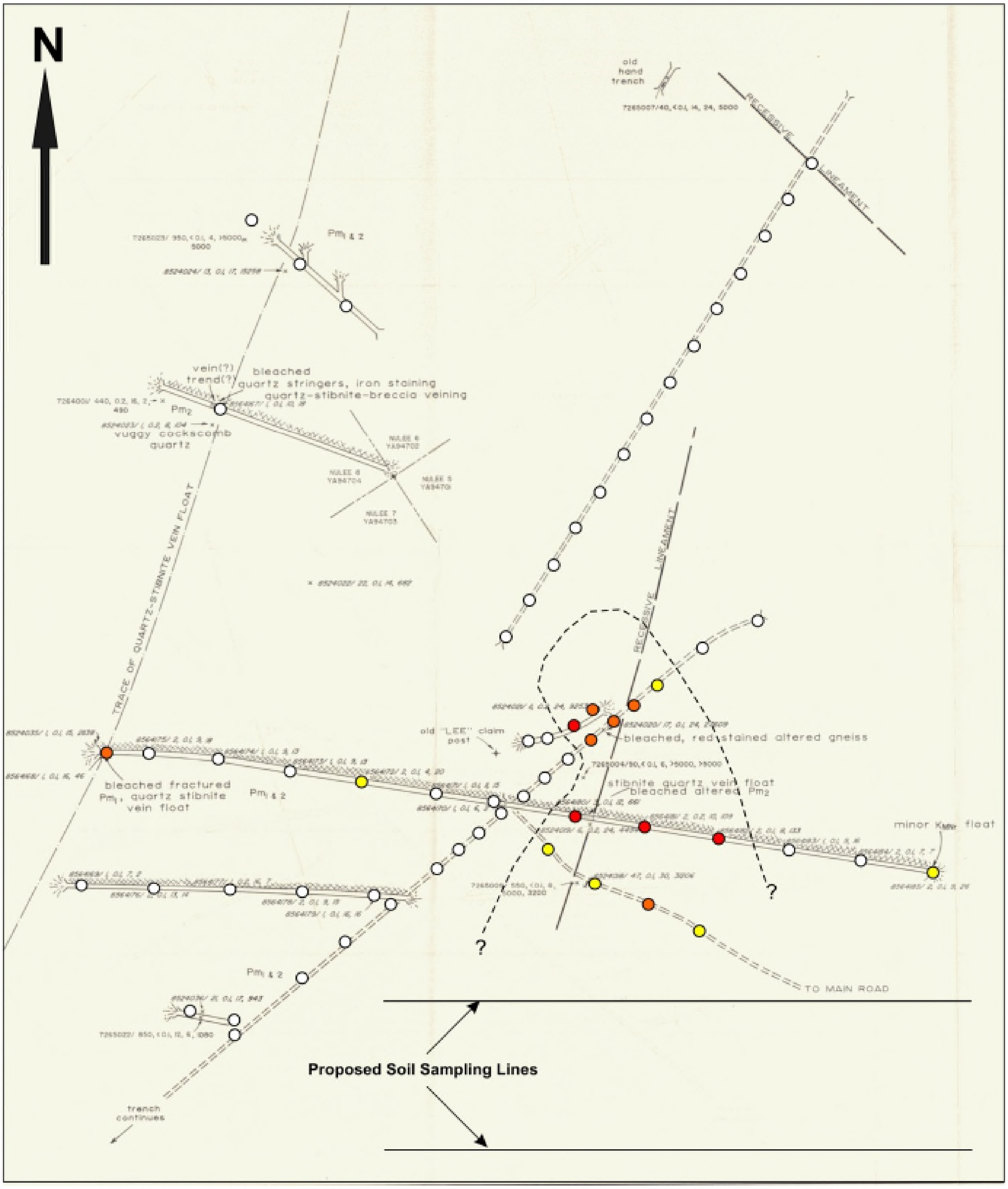
Wind Zone

"The Wind Zone is characterized by brecciated quartz-feldspar porphyry intrusions in Paleozoic metamorphic rocks, as indicated from lithologic distributions in trenched overburden.... The nearest outcrop is over 1 km away. Rhyolitic and chalcedonic breccias are associated with the porphyry intrusions, along with quartz and chalcedonic veinlets. No sulfide minerals have been identified" (Hulstein, 1988).

"Numerous bulldozer and excavator trenches, plus several shallow (<1 meter deep) prospecting trenches, were completed in 1987 on the Wind Zone attempting to locate the source of anomalous stream sediment samples returned in 1986" (Hulstein, 1988). None of these exposed bedrock.

Twelve rock samples collected in 1986 and 1988 from the vicinity of the Wind Zone trenches returned three strongly anomalous values of 0.74, 0.31 and 0.17 g/t Au. Of the remaining nine rock samples, seven returned 23 to 90 ppb Au. The rock samples also contained up to 76 ppm As and 970 ppb Hg. Soil samples returned a maximum of 83 ppb Au.

The Wind Zone lies above the northwestern tributaries of McDade Creek. These tributaries yield highly anomalous stream sediment gold values with several samples returning >100 ppb Au.



- Soil sample: 100 - 661 ppm Sb
- Soil sample: 40 - 99 ppm Sb
- Soil sample: 20 - 39 ppm Sb
- Soil sample: <20 ppm Sb
- Outline of soil anomaly

0 50
METRES

Lee Zone: Antimony in soil samples
after Keyser (1987) and Hulstein (1988)

Figure 13.

Red Trench Zone

"First trenched and examined in 1986, the Red Trench Zone … is named after the dark red hematitic clay-rich soil found there. The nearest outcrop, 100 meters to the north, is of silicified basalt or possibly aphanitic black rhyolite. Trenching exposed an extensive east-west trending clay gouge zone cutting rocks of the Carmacks Group. This zone was not permanently frozen in contrast to the surrounding area and the 6 meter deep trenches filled rapidly with water" (Hulstein, 1988).

"Analysis of jasperoid and chalcedonic rubble found in 1986 returned up to 320 ppb gold. Samples of the clay gouge zone taken in 1987 contained up to 1000 ppb mercury" (Hulstein, 1988).

"A total of 71 soil and 6 rock samples were collected in 1988. Results returned background to low order anomalous values for gold (<56 ppb), silver (<0.6 ppm), arsenic (<228 ppm) and antimony (<3 ppm)" (Hulstein, 1988).

Soil Geochemistry in the Mount McDade Area

Previous Work Soil samples collected during the 1980's exploration programs were collected at depths varying from as shallow as 0.1 m to depths of up to 4.0 m in trenches (Keyser, 1987; Hulstein and Keyser, 1988; Hulstein, 1988). The samples were not differentiated into B-horizon and C-horizon samples.

Soil geochemical results for Au and As, collected from 1986 to 1988 in the Mount McDade area, have been compiled in Figure 14. The compilation reveals that the soil data tends to be clustered and that large areas have not been sampled.

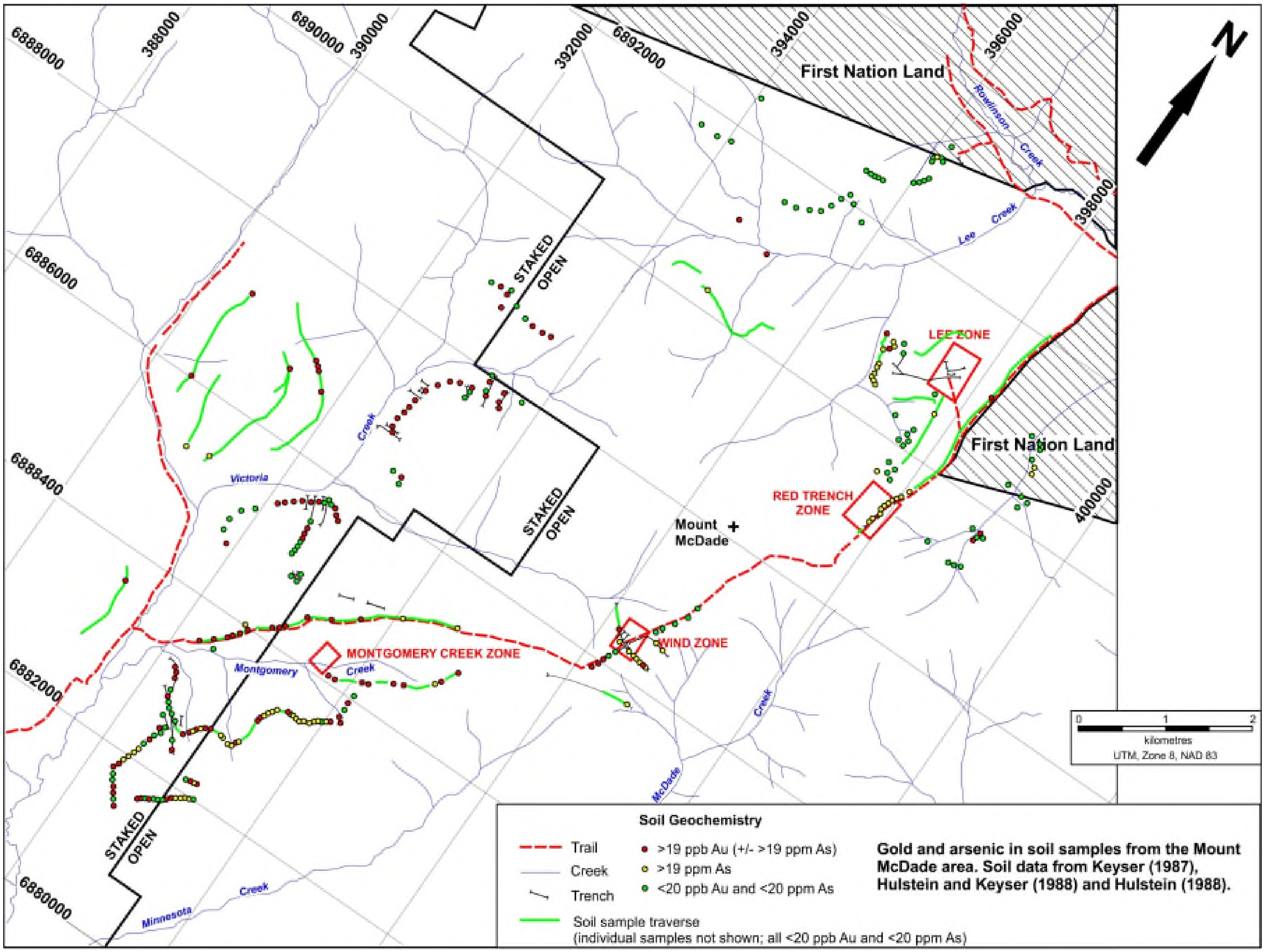
Elevated values of gold and/or arsenic in soil occur in areas near the Lee Zone, the Red Trench Zone, the Wind Zone and in the Montgomery Creek drainage area.

Stream Sediment Geochemistry in the Mount McDade Area: Previous Work

Stream sediment (silt) geochemical results for Au, collected from 1986 to 1988 in the Mount McDade area, have been compiled in Figure 15.

The most striking gold anomalies were returned from sediment collected in the upper tributary streams of McDade Creek with values of up to 470 ppb Au. These tributary streams drain the area south of Mount McDade including the Wind Zone. This is also the area where Ryan et al. (2016) identified Late Cretaceous Casino suite rocks in outcrop near the southwest margin of a prominent magnetic high.

Elevated gold values are also evident in sediments collected from streams southwest and west of the Lee Zone that are tributaries of Lee Creek.



First Nation Land
LEE ZONE
RED TRENCH ZONE
Mount McDade
WIND ZONE
MONTGOMERY CREEK ZONE
STAKED OPEN
Victoria
Montgomery Creek
Lee Creek
Rowlinson Creek
McDade Creek
Minnesota Creek
N
kilometres
UTM, Zone 8, NAD 83
Soil Geochemistry
Trail
Creek
Trench
>19 ppb Au (+/- >19 ppm As)
>19 ppm As
<20 ppb Au and <20 ppm As
Soil sample traverse
(individual samples not shown; all <20 ppb Au and <20 ppm As)
Gold and arsenic in soil samples from the Mount McDade area. Soil data from Keyser (1987), Hulstein and Keyser (1988) and Hulstein (1988).

Figure 14.

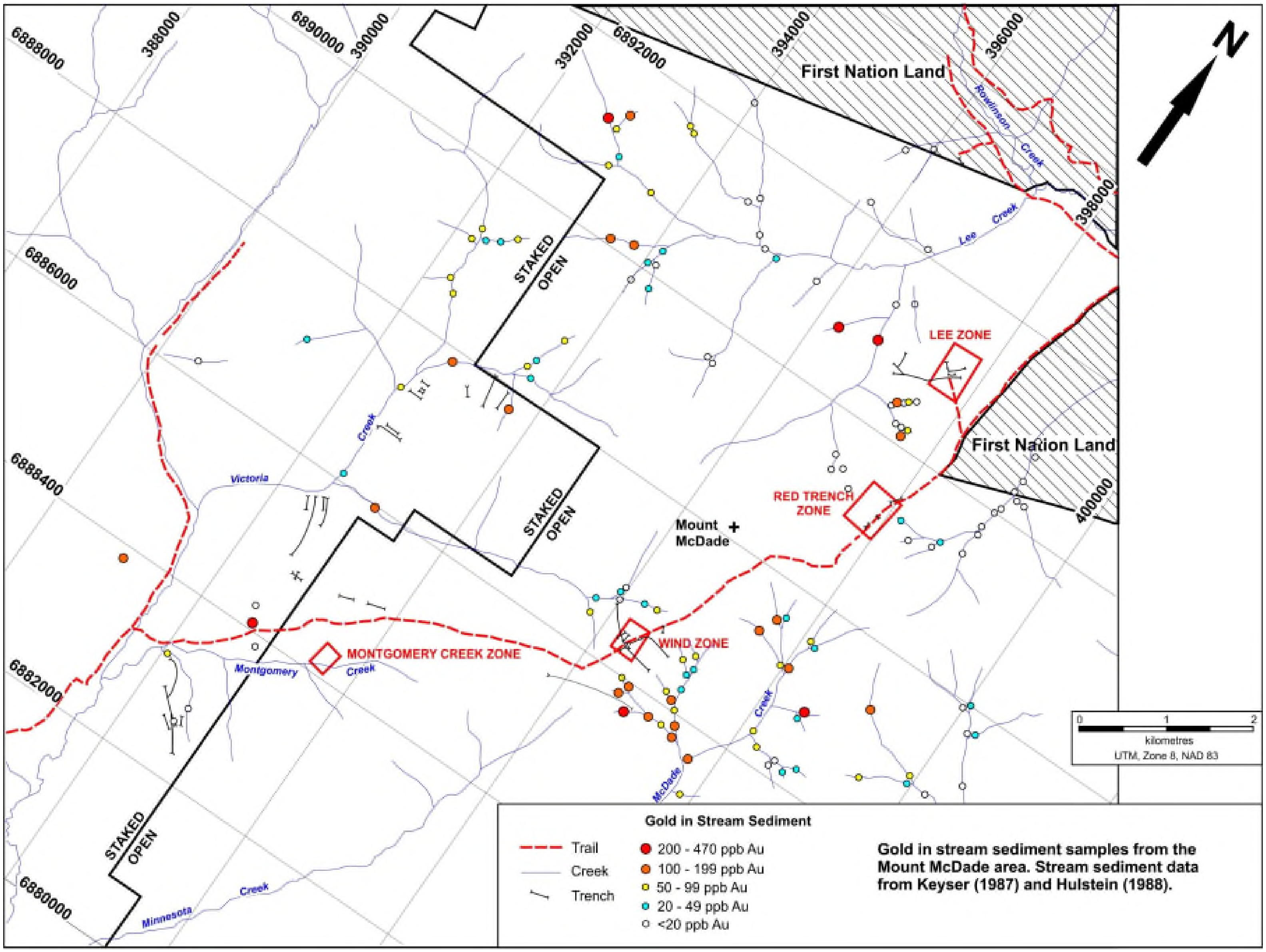

6888000
388000
6890000
390000
392000
6892000
394000
396000
398000
400000
6886000
6888400
6882000
6880000
First Nation Land
Rowlinson Creek
Lee Creek
STAKED OPEN
LEE ZONE
First Nation Land
RED TRENCH ZONE
Mount McDade
Victoria Creek
MONTGOMERY CREEK ZONE
Montgomery Creek
WIND ZONE
McDade Creek
Minnesota Creek
N
0 1 2
kilometres
UTM, Zone 8, NAD 83
Gold in Stream Sediment
Trail
Creek
Trench
200 - 470 ppb Au
100 - 199 ppb Au
50 - 99 ppb Au
20 - 49 ppb Au
<20 ppb Au
Gold in stream sediment samples from the Mount McDade area. Stream sediment data from Keyser (1987) and Hulstein (1988).

Figure 15.

2017 Exploration

Field Sampling Procedures

Exploration in 2017 consisted mainly of a geochemical program that included rock sampling, soil sampling and stream sediment sampling.

Outcrop is sparse and the only outcrop observed occurs near the top of the ridge that includes Mount McDade. Areas of scree occur locally. All rock samples were collected from trench rubble, float and angular to subangular rock fragments collected from soil pits (some of this material is essentially scree). Rock samples were placed in plastic bags. Rock sample descriptions are presented in Appendix 1.

Soil samples were collected from hand dug pits so both upper B-horizon samples and relatively deep C-horizon samples could be collected (Figures 16 to 19). The mattock end of a Geotul was used to cut out a rectangular area of upper organic-rich soil (soil mat) and this was set aside. A hole was then dug with a short handled shovel with larger roots cut using the Geotul. The maximum hole depth attained was 90 cm and the average depth of the 53 sampled pits was 69 cm. No samples were collected from 3 pits in which permafrost was encountered at shallow depths (as little as 50 cm deep). Hole depth was commonly limited by stoniness and by permafrost. During the digging of soil pits larger rock fragments were set aside and subsequently examined for lithology, alteration and mineralization, and samples were collected for chemical analyses if warranted. Soil samples were placed in pleated kraft bags and rock samples were placed in plastic bags. Upon completion of sampling the pits were refilled and the organic-rich soil mat was replaced on top. Soil pit and soil sample descriptions are presented in Appendix 2.

The Ah (organic) horizon is well developed throughout the area and commonly varied from medium to dark brown near the top to black at the base. At most sites this was underlain by a white to light grey ash layer up to 22 cm thick. The mineral soil below the ash layer is typically medium brown to weakly orangey brown and quite stony with stoniness commonly increasing downward. Reddish brown, "upper B- horizon" soil is uncommon and not Ae-horizon material was noted. Within the B- and C-horizons rock clasts larger that very coarse sand commonly comprise over 30% of the material and in some pits angular to subangular, coarse clasts dominate. The matrix commonly consists of medium brown to weakly orangey brown silt to fine sand. In a minority of pits containing predominantly very coarse rock fragments (essentially scree) clasts larger than 2 cm across were excluded from soil samples. In all other cases rock clasts larger than 1 cm across were excluded.

Stream sediment samples were collected by hand and commonly consisted of (i) light to medium brownish grey sandy silt collected from the active stream channel and (ii) silt-rich moss mat situated on sticks and logs lying at and just above stream level. Samples were placed in pleated kraft bags. Stream sediment sample descriptions are presented in Appendix 3.

Figure 16. Soil pit DA2018 (393350E, 6884092N, UTM Zone 08V, NAD83). Prominent oxidized upper B horizon (4 cm thick, just above Geotul head) beneath 6 cm thick, white ash layer. Pit is 90 cm deep. Geotul handle is marked in 10 cm increments.

Figure 17. Soil pit DA2032 (393346E, 6884410N, UTM Zone 08V, NAD83). White, 22 cm thick layer of ash (near Geotul head) underlain by 5 cm black, organic-rich layer. Pit is 85 cm deep. Geotul handle is marked in 10 cm increments.

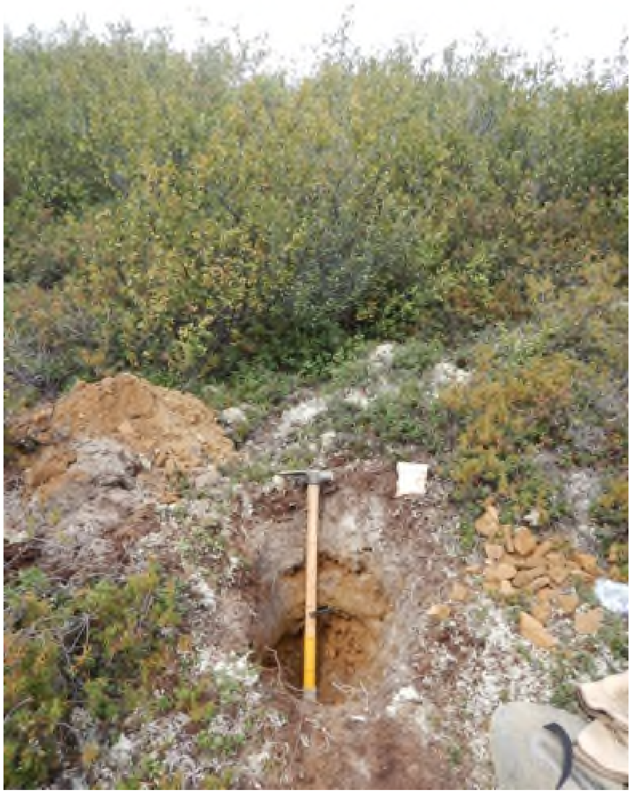


Figure 18. Soil pit DA2004 (397299E, 6887395N, UTM Zone 08V, NAD83). Well-developed B-horizon consisting mainly of silty sand (with base about 30 cm above base of pit at knife) beneath a 12 cm thick ash horizon. Underlying C horizon is much more stony. Note that large clasts have been set aside (to right side of pit) for examination. Geotul is 73 cm long.

Figure 19. Soil pit DA2001 (397366E, 6887318N, UTM Zone 08V, NAD83). Very coarse, angular scree beneath Ah horizon. Geotul is 73 cm long.

Laboratory Methods: Rock Geochemistry

Sample Preparation: Samples received at TSL Laboratories Inc. in Saskatoon, Saskatchewan were opened, sorted and dried prior to preparation. Rock samples were crushed using a primary jaw crusher to a minimum 70% passing 10 mesh (1.70 mm).

A representative split sample was obtained by passing the entire sample through a riffler. The 250 gram sub-sample thus obtained was pulverized to a minimum 95% passing 150 mesh (106 microns). A silica sand wash was used between each pulverization to prevent contamination between sub-samples.

Multi-Element Analysis: A 0.5 gram sample was digested with 3 ml of aqua regia (3:1 HCl/HNO_3) at 95°C for 1 hour and then diluted to 10 ml with deionized water. The solution was analyzed by inductively coupled plasma mass spectrometry (ICP-MS) for 36 elements. Aqua regia digestion may fail to liberate significant proportions of several of the reported elements (depending on sample mineralogy) including Al, B, Ba, Ca, Cr, Fe, Ga, K, La, Mg, Mn, Na, P, Sn, Sr, Th, Ti, V and W.

Repeat Gold Analysis: Four samples were selected for repeat gold analyses (three samples with initial determinations of > 40 ppb Au and one sample that returned 802 ppm As and <0.5 ppb Au). Gold was determined on a 30 g subsample by fire assay procedure (production of Dore bead) followed by dissolution of the bead in aqua regia and analysis by atomic absorption spectrophotometry. The lower detection limit with this method is 5 ppb Au and the upper detection limit is 1000 ppb Au.

Antimony Assays: The Sb content of 15 samples that returned over-range ICP-MS value of > 2000 ppm Sb, were determined on a 0.5 g sample using an HNO3-HCl digestion, large dilution and atomic absorption spectrophotometry. The lower detection limit with this method is 0.01% Sb and the upper detection limit is 20% Sb.

Quality Assurance: Certified reference materials (standards) were inserted into the sample batch by TSL. The data obtained on these samples were reviewed and no issues were detected.

The agreement between initial Au analyses (aqua regia/ICP-MS) and four repeat analyses (FA/AA) was satisfactory. Of the 15 samples that initially returned > 2000 ppm Sb (aqua regia/ICP-MS), 14 returned values of >2000 ppm Sb upon assay.

Results: Rock sample laboratory results are presented in Appendix 4 (multi-element analyses) and in Appendix 5 (antimony assays and repeat gold analyses).

Laboratory Methods: Soil and Stream Sediment Geochemistry

Sample Preparation: The samples were submitted to the ALS preparation laboratory in Whitehorse (ALS Canada Ltd.).

B-horizon soil samples and stream sediment samples were dried at <60° C and then sieved to < 80 mesh (<180 microns; ALS preparation code PREP-41).

C-horizon soil samples underwent crushing to until 70% of the sample consisted of < 2 mm material. This material was then split with a riffle splitter to yield a subsample of up to 1000 g that was pulverized to at least 85% passing 75 um (ALS preparation code PREP-31B). Note that this type of preparation (crushing and pulverizing) is typically used for rock samples and was selected because of the relatively coarse nature of many of the C-horizon samples.

Multi-Element Analysis: Geochemical analyses (B-horizon soil, C-horizon soil and stream sediment samples) were performed at the ALS laboratory in Vancouver using ALS procedure AuME-TL43. For each sample a 25 g subsample of pulverized material underwent aqua regia digestion and ICP-MS finish resulting in the determination of 51 elements including gold (with a detection range of 1 to 1000 ppb Au).

Quality Assurance: Certified reference materials (standards) were inserted into the sample batch by ALS. The data obtained on these samples were reviewed and no issues were detected for elements of interest (base and precious metals).

Results: Laboratory results for C-horizon soil samples are presented in Appendix 6. Results for B-horizon soil samples and stream sediment samples are presented in Appendix 7.

Geochemical Results

Montgomery Creek Area: Soil Samples

In the Montgomery Creek area, within the MONT 1 to MONT 4 claims, soil samples were collected on the south facing slope to the north of the creek. Sampling was done on a grid pattern with a nominal line spacing of 100 m and a nominal spacing between samples on each line of 50 m.

Fourteen B-horizon soil samples from the Montgomery Creek area returned up to 41 ppb Au (Figures 20, 21 and 22; Table 5).

Twenty-three C-horizon soil samples from the Montgomery Creek area returned up to 28 ppb Au, 146.5 ppm As and 13.2 ppm Sb (Figure 23 to 26; Table 5).

Element	Au	Ag	As	Hg	Sb
Units	ppb	ppm	ppm	ppm	ppm
B-Horizon Soil (n=14)	41	0.04	13.8	0.08	1.59
C-Horizon Soil (n=23)	28	0.08	146.5	0.13	13.20

Table 5. Maximum values obtained from 14 B-horizon soil samples and 23 C-horizon soil samples collected from the Montgomery Creek area (Appendices 2, 6 and 7).

Montgomery Creek Area: Rock Samples

Three rock samples were collected from soil pits in the Montgomery Creek area. No significantly anomalous values were obtained (Figure 27; Table 6).

Element	Au	Ag	As	Hg	Sb
Units	ppb	ppm	ppm	ppm	ppm
Rock (n=3)	2.4	0.1	15.6	0.21	2.4

Table 6. Maximum values obtained from 3 rock samples collected from soil pits in the Montgomery Creek area (Appendices 1 and 4).

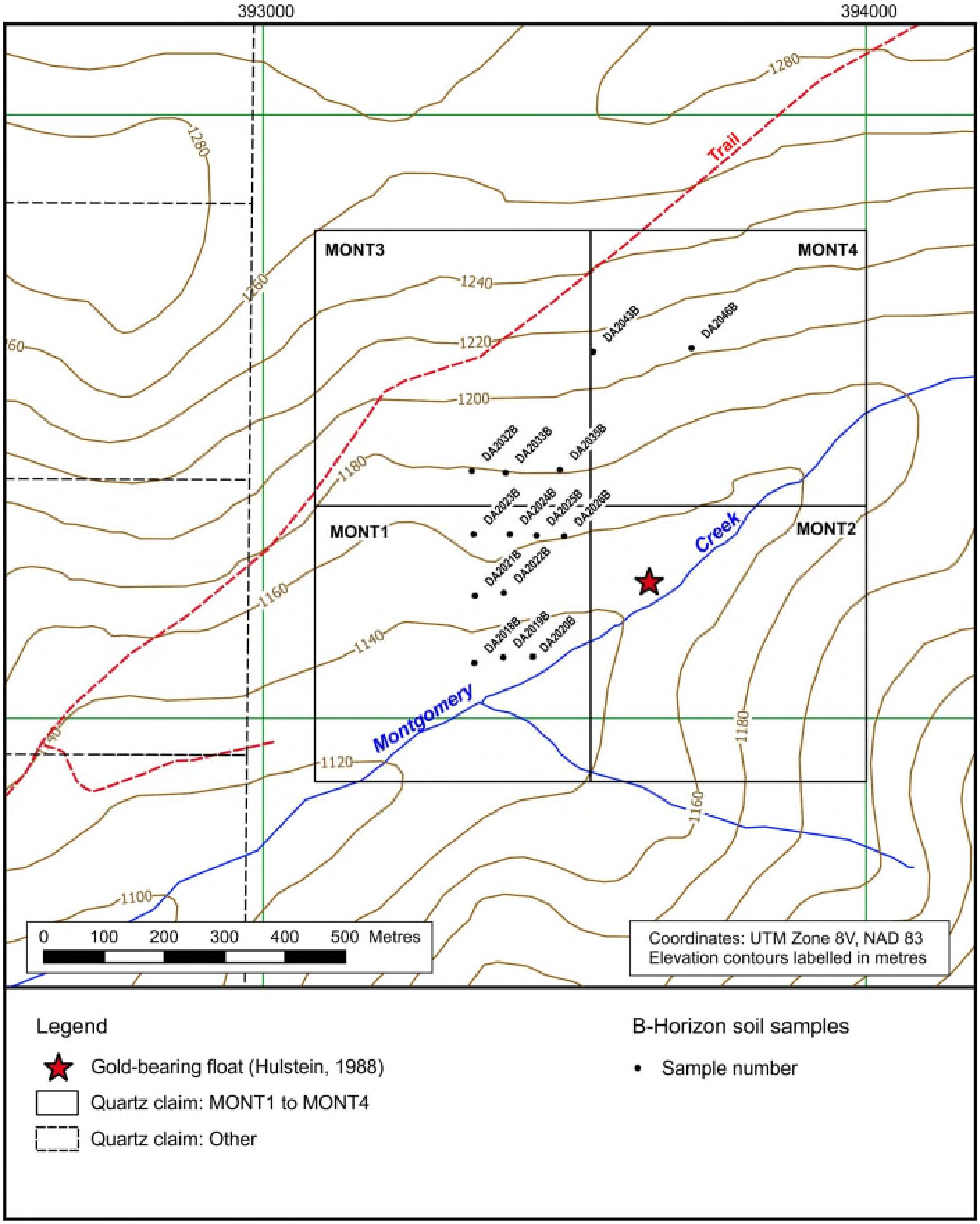


Figure 20. Sample numbers of B-horizon soil samples collected from the Montgomery Creek area. Base map created using Geomatics Yukon data.

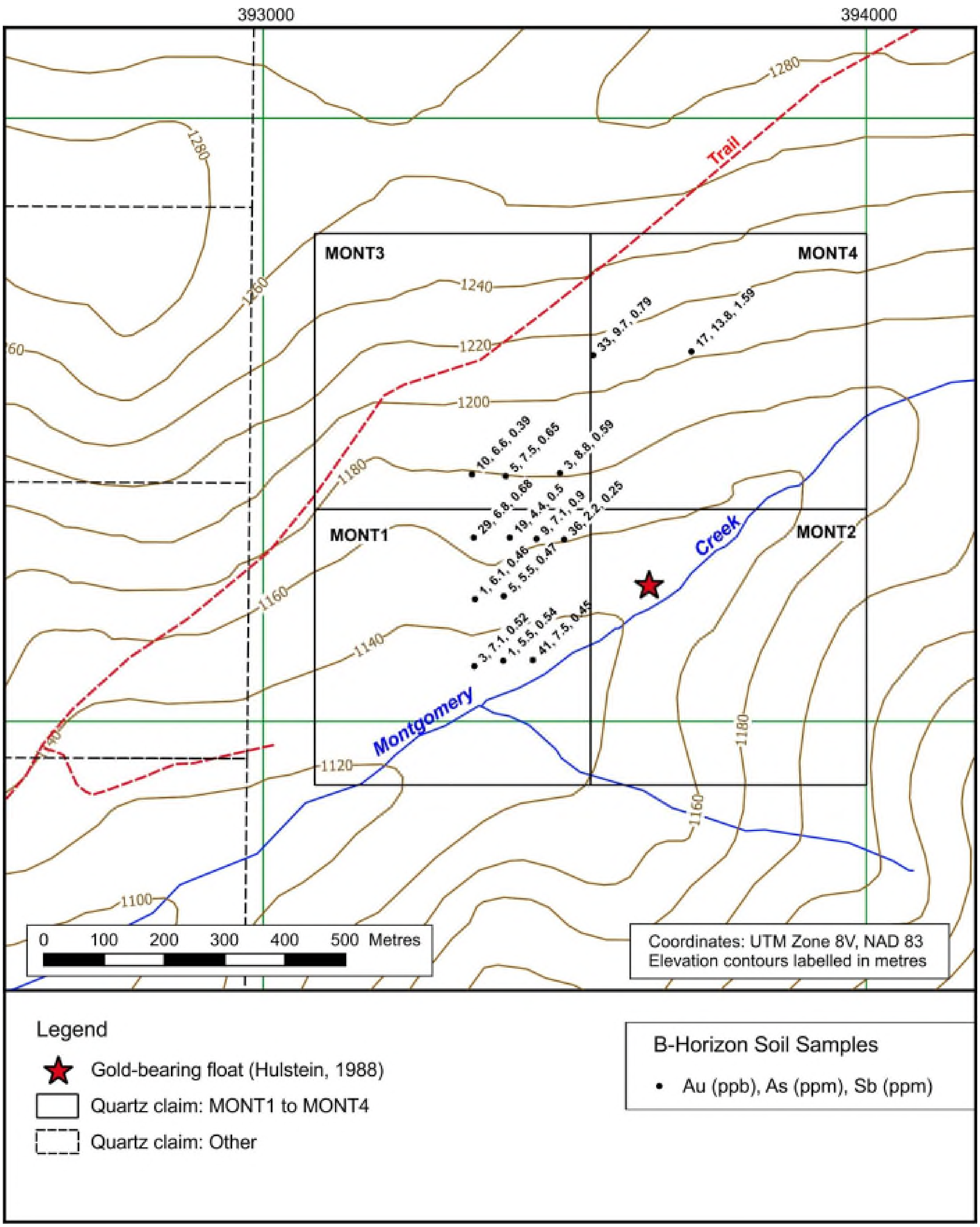


Figure 21. Gold, arsenic and antimony values in B-horizon soil samples collected from the Montgomery Creek area. Base map created using Geomatics Yukon data.

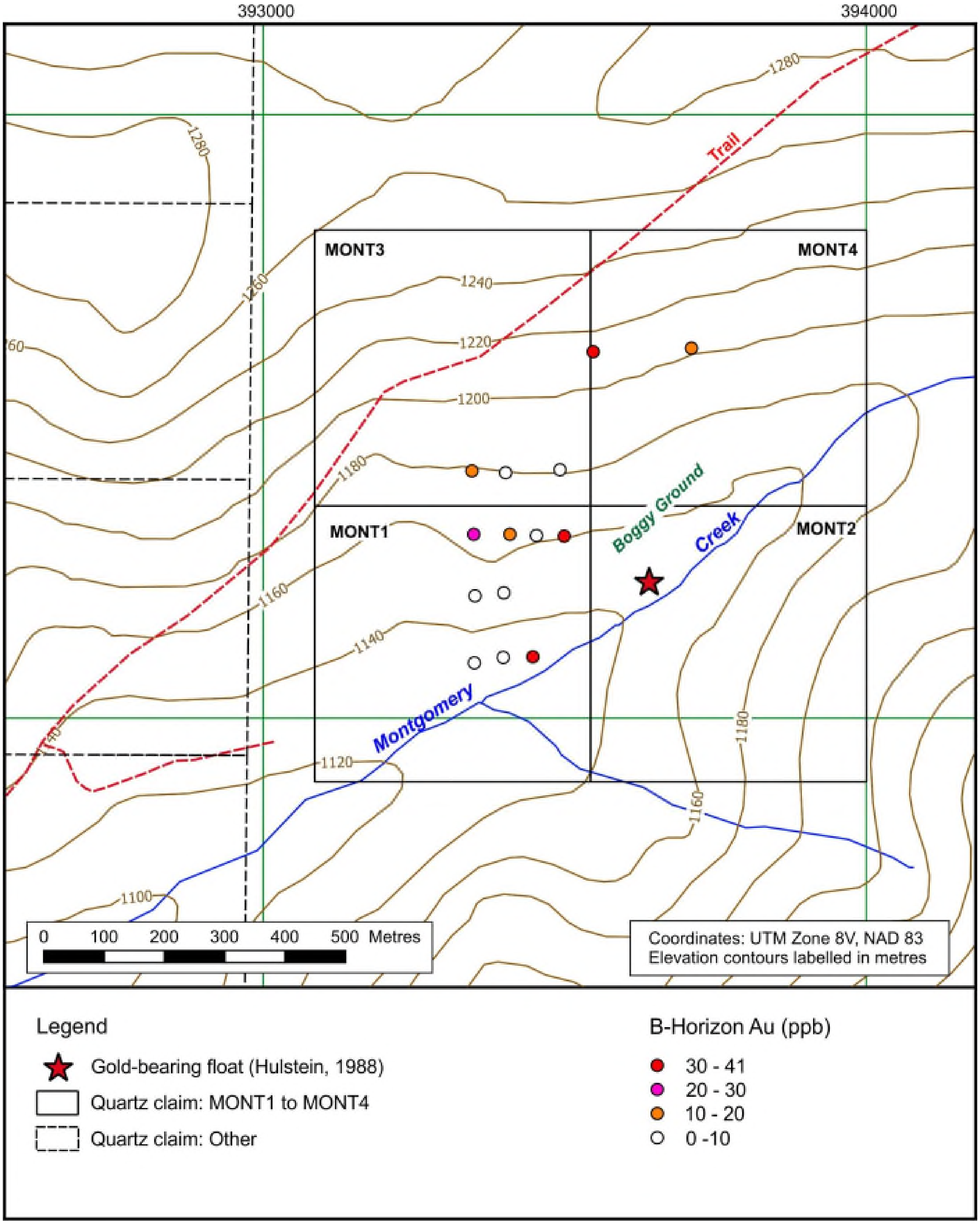


Figure 22. Gold in B-horizon soil samples collected from the Montgomery Creek area. Base map created using Geomatics Yukon data.

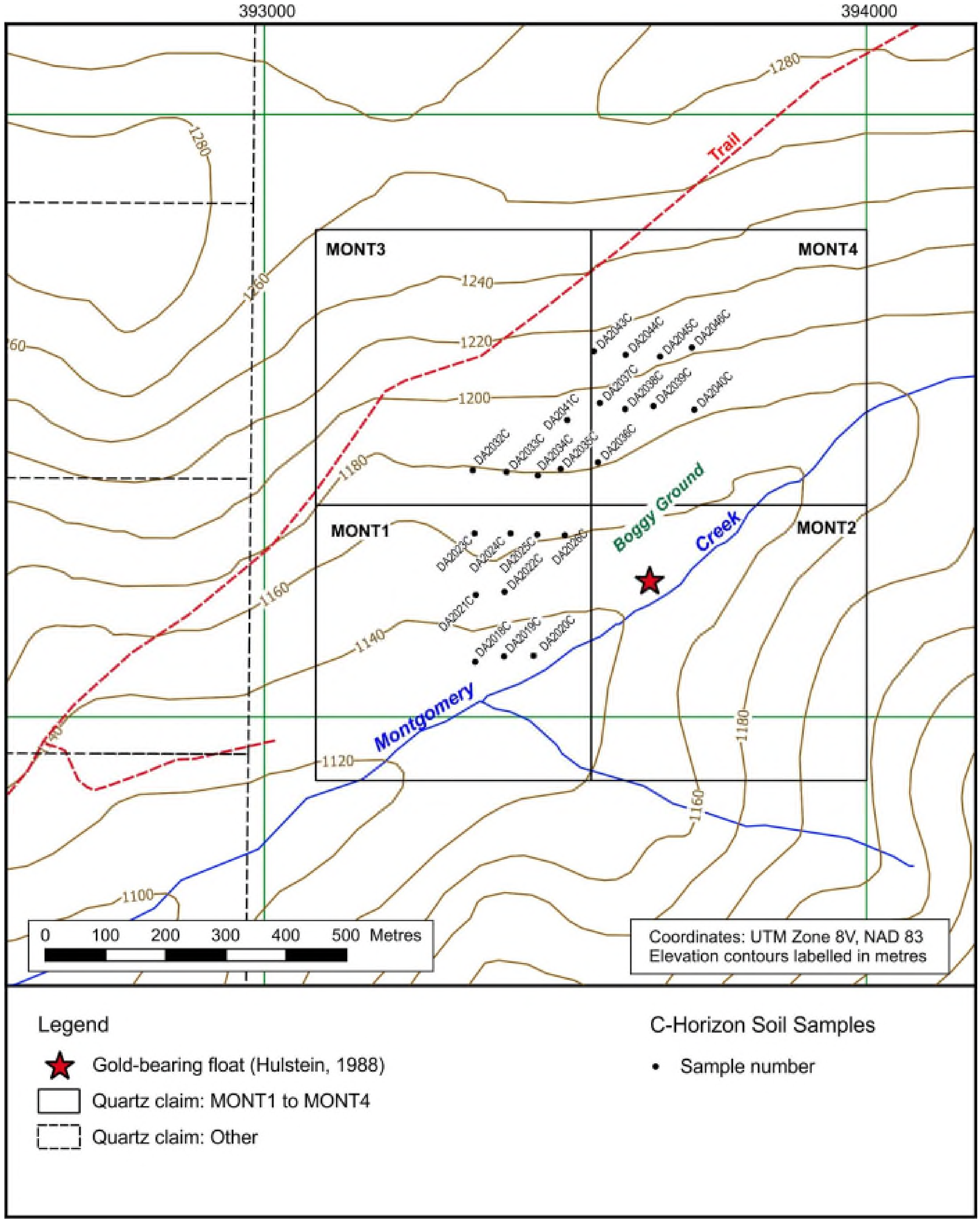


Figure 23. Sample numbers of C-horizon soil samples collected from the Montgomery Creek area. Base map created using Geomatics Yukon data.

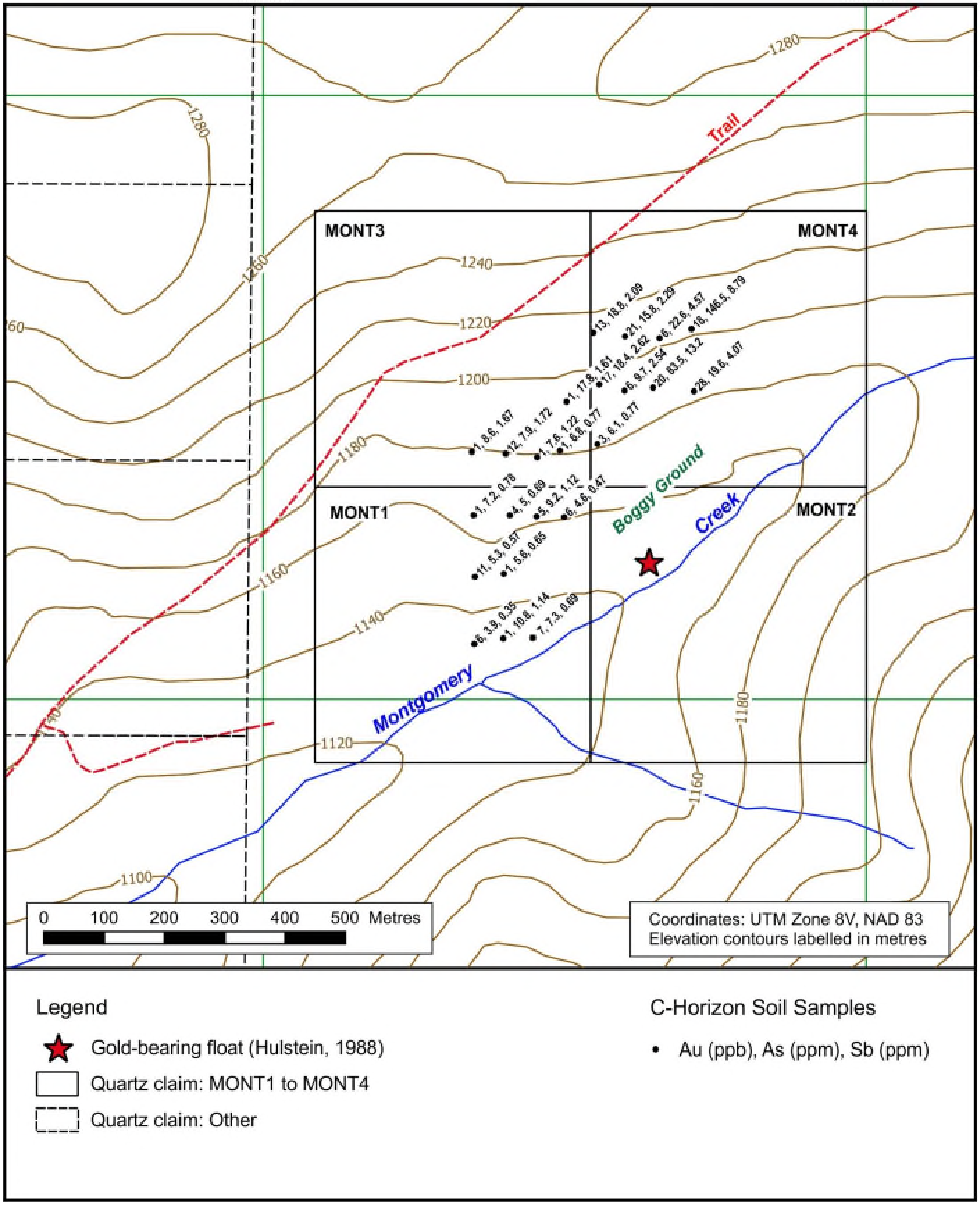


Figure 24. Gold, arsenic and antimony values in C-horizon soil samples collected from the Montgomery Creek area. Base map created using Geomatics Yukon data.

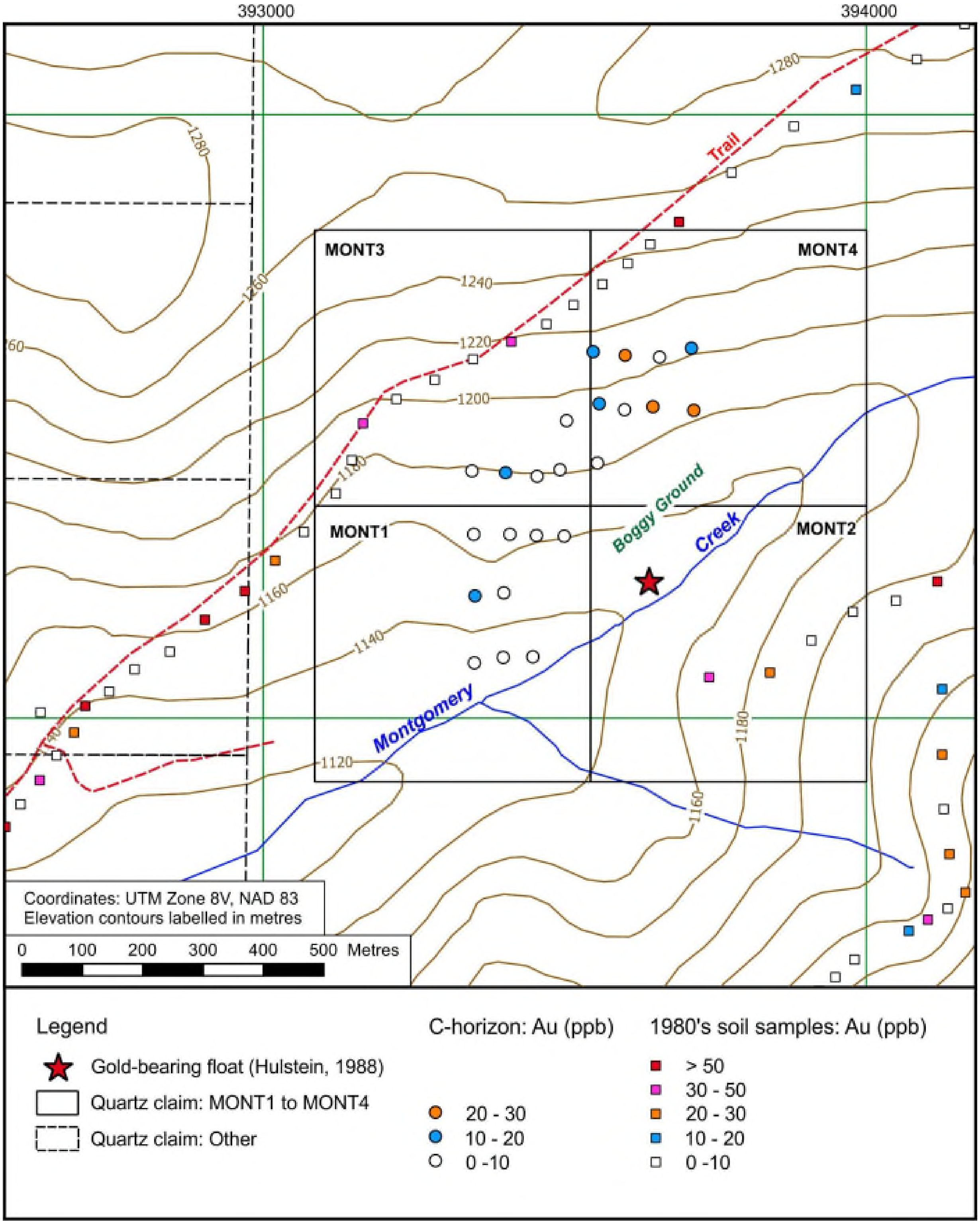


Figure 25. Gold in C-horizon soil samples collected from the Montgomery Creek area (this project) and in soil samples from 1980's exploration (includes both B-horizon and C-horizon soil samples; Keyser, 1987, Hulstein and Keyser, 1988 and Hulstein, 1988). Base map created using Geomatics Yukon data.

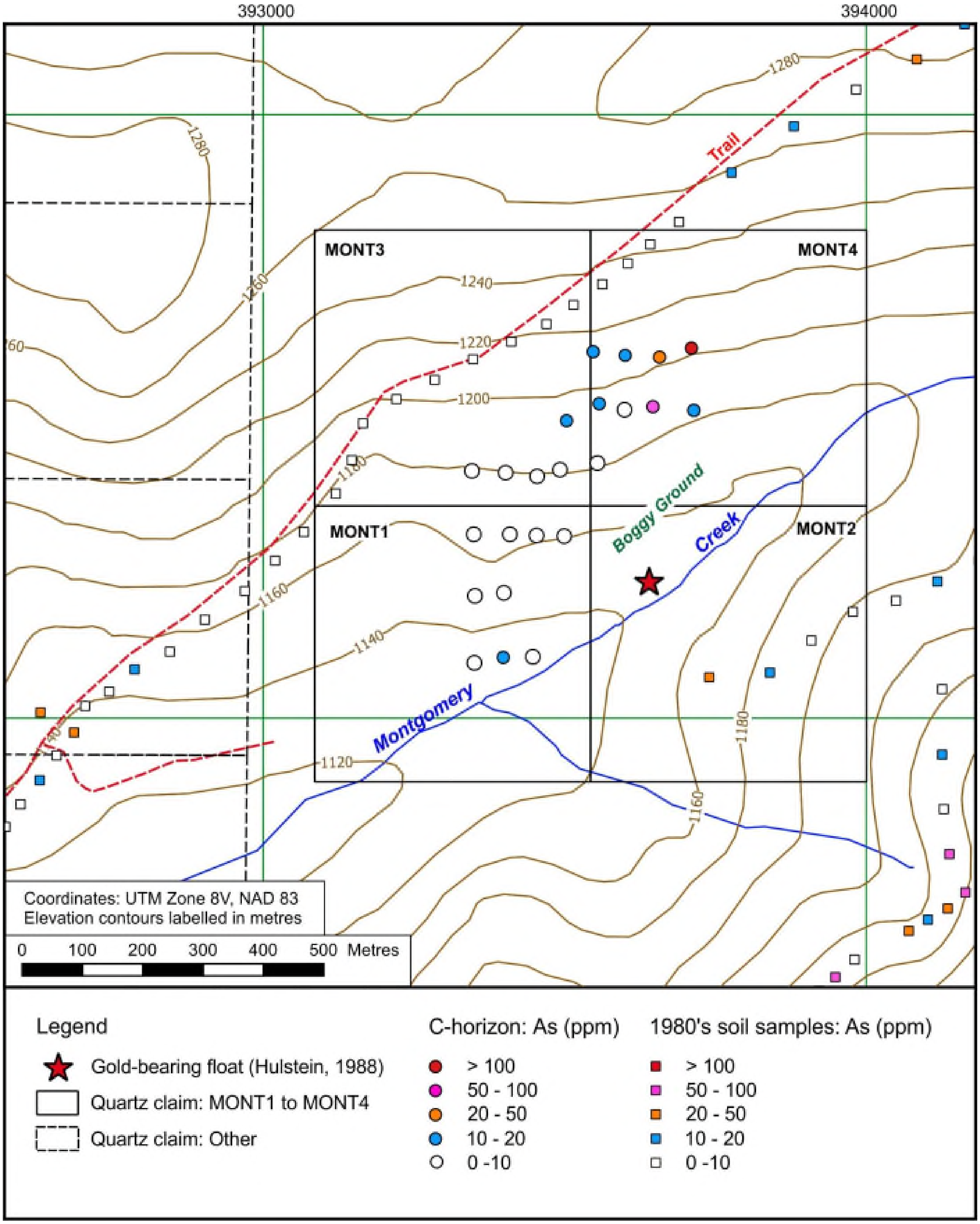


Figure 26. Arsenic in C-horizon soil samples collected from the Montgomery Creek area (this project) and in soil samples from 1980's exploration (includes both B-horizon and C-horizon soil samples; Keyser, 1987, Hulstein and Keyser, 1988 and Hulstein, 1988). Base map created using Geomatics Yukon data.

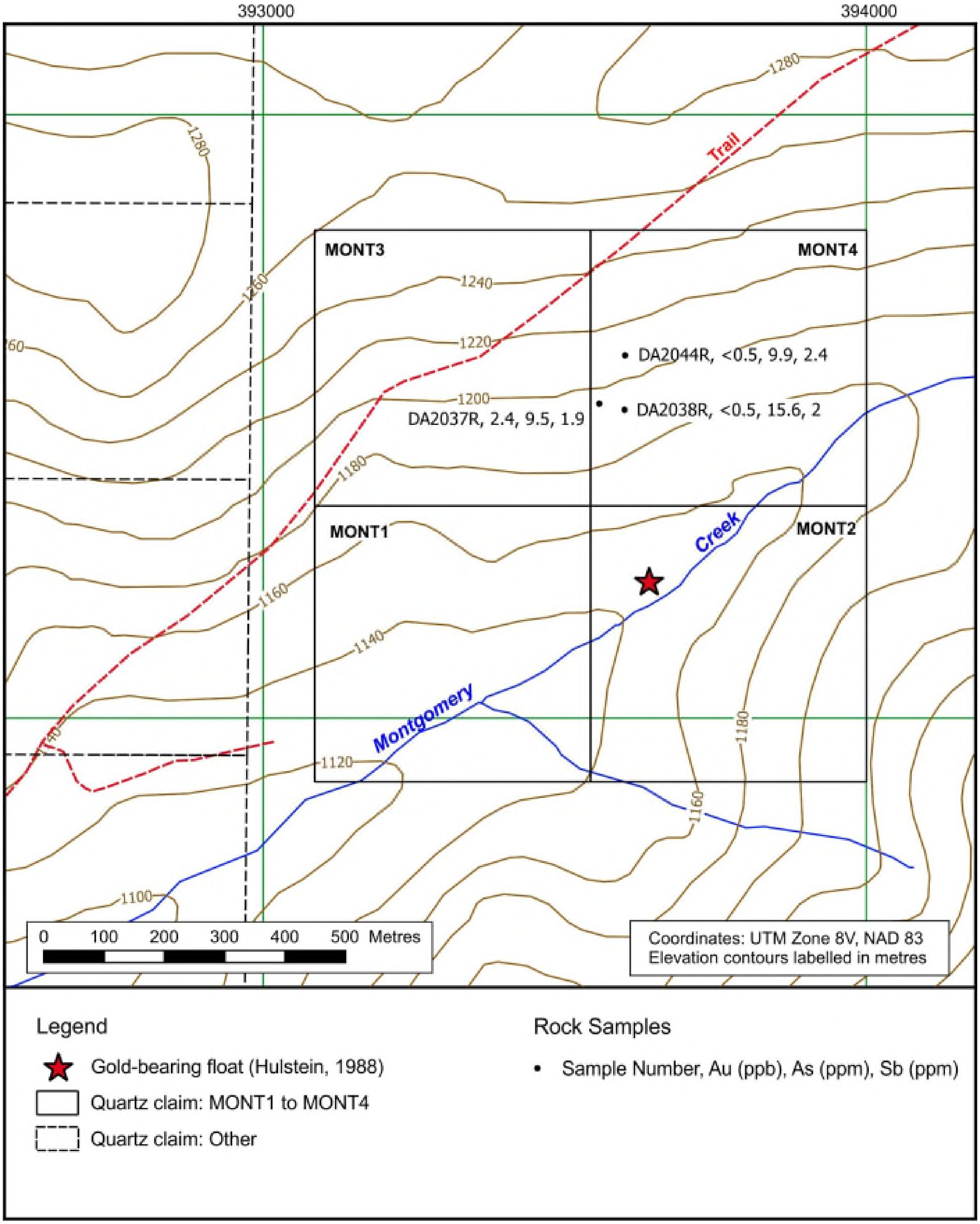


Figure 27. Sample numbers, gold values, arsenic values and antimony values for rock samples collected from soil pits in the Montgomery Creek area. Base map created using Geomatics Yukon data.

Wind Zone Area: Soil Samples

Twenty-two soil pits were dug along three traverses that approximately followed contours to the south, east and northeast of the Wind Zone (Figures 28 to 30). From these pits 21 C-horizon and 18 B-horizon soil samples were collected (one pit yielded no samples due to very shallow permafrost). Au, Ag, Hg and Sb values for these samples are relatively subdued (Table 7). Arsenic values in the northern and southern traverses are significantly anomalous with several values above 50 ppm As (to a maximum of 338 ppm As).

Element	Au	Ag	As	Hg	Sb
Units	ppb	ppm	ppm	ppm	ppm
B-Horizon Soil (n=18)	15	0.65	338.0	0.06	16.05
C-Horizon Soil (n=21)	11	0.23	217.0	0.10	8.40

Table 7. Maximum values obtained from 18 B-horizon soil samples and 21 C-horizon soil samples collected from the Wind Zone area (Appendices 2, 6 and 7).

Wind Zone Area: Rock Samples

Four rock samples were collected from soil pits northeast of the Wind Zone trenches (Figure 31). No significantly anomalous values were detected (Table 8).

Four samples of iron-oxide altered, angular rubble (DA4026 to DA4029) from the Wind Zone trenches were collected for analyses. These samples returned from 3.07 to 17.17% Fe and 986 to 3232 ppm Mn. Samples DA4028, described as a volcaniclastic (?) rock totally replaced by orangey brown, aphanitic, limonitic Fe-oxide, returned 802 ppm As and 23.5 ppm Sb (Figure 31 and Table 8).

Element	Au	Ag	As	Hg	Sb
Units	ppb	ppm	ppm	ppm	ppm
Wind Zone Soil Pits (n=4)	12.5	0.2	9.4	0.02	1.2
Wind Zone Trenches (n=4)	3.1	<0.1	802.3	0.28	23.5

Table 8. Maximum values obtained from 4 rock samples collected from soil pits in the vicinity of the Wind Zone and 4 rock samples collected from trenches within the Wind Zone (Appendices 1 and 4).

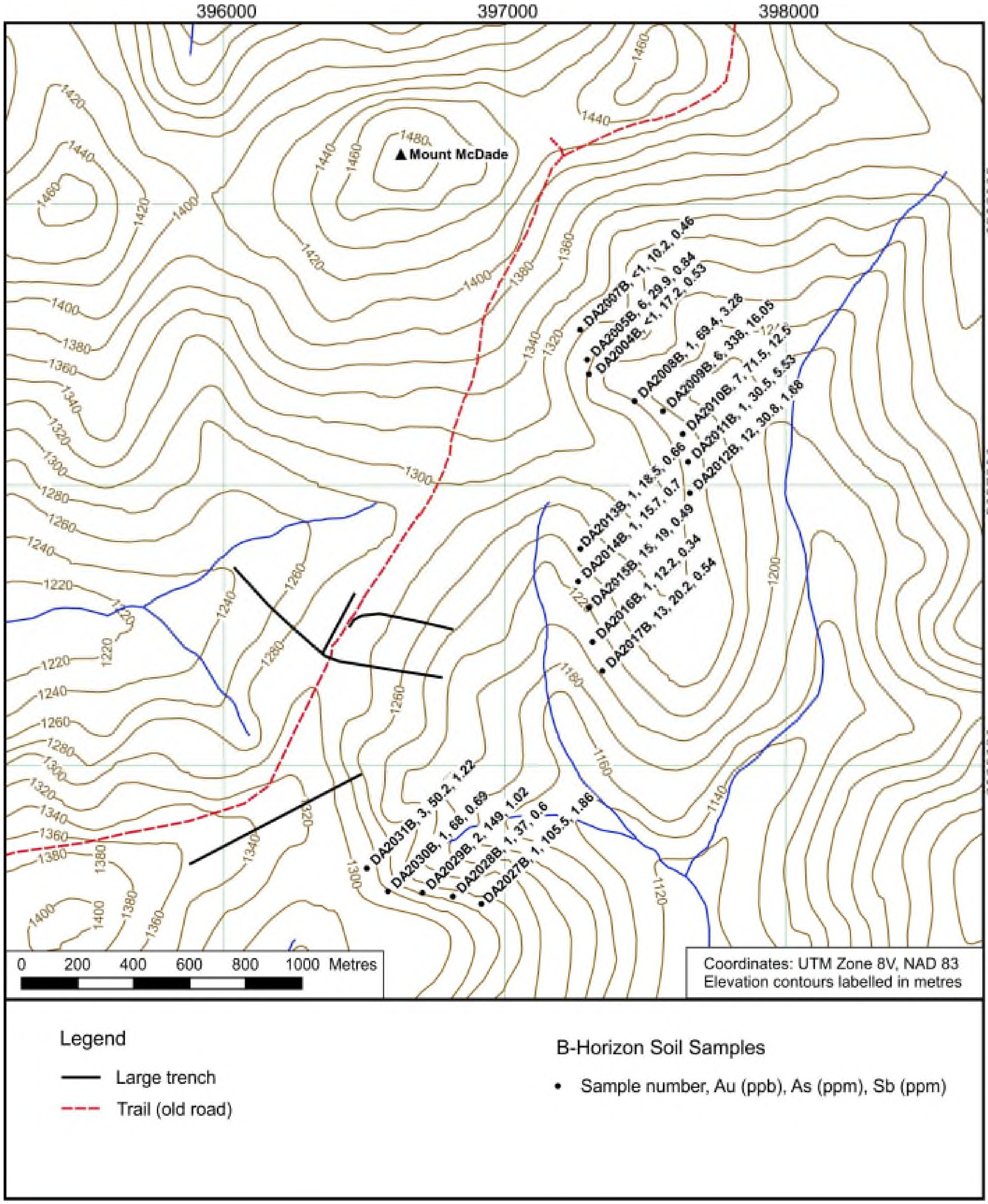


Figure 28. B-horizon soil samples collected from the Wind Zone area (this project) showing sample numbers, gold values, arsenic values and antimony values. Base map created using Geomatics Yukon data.

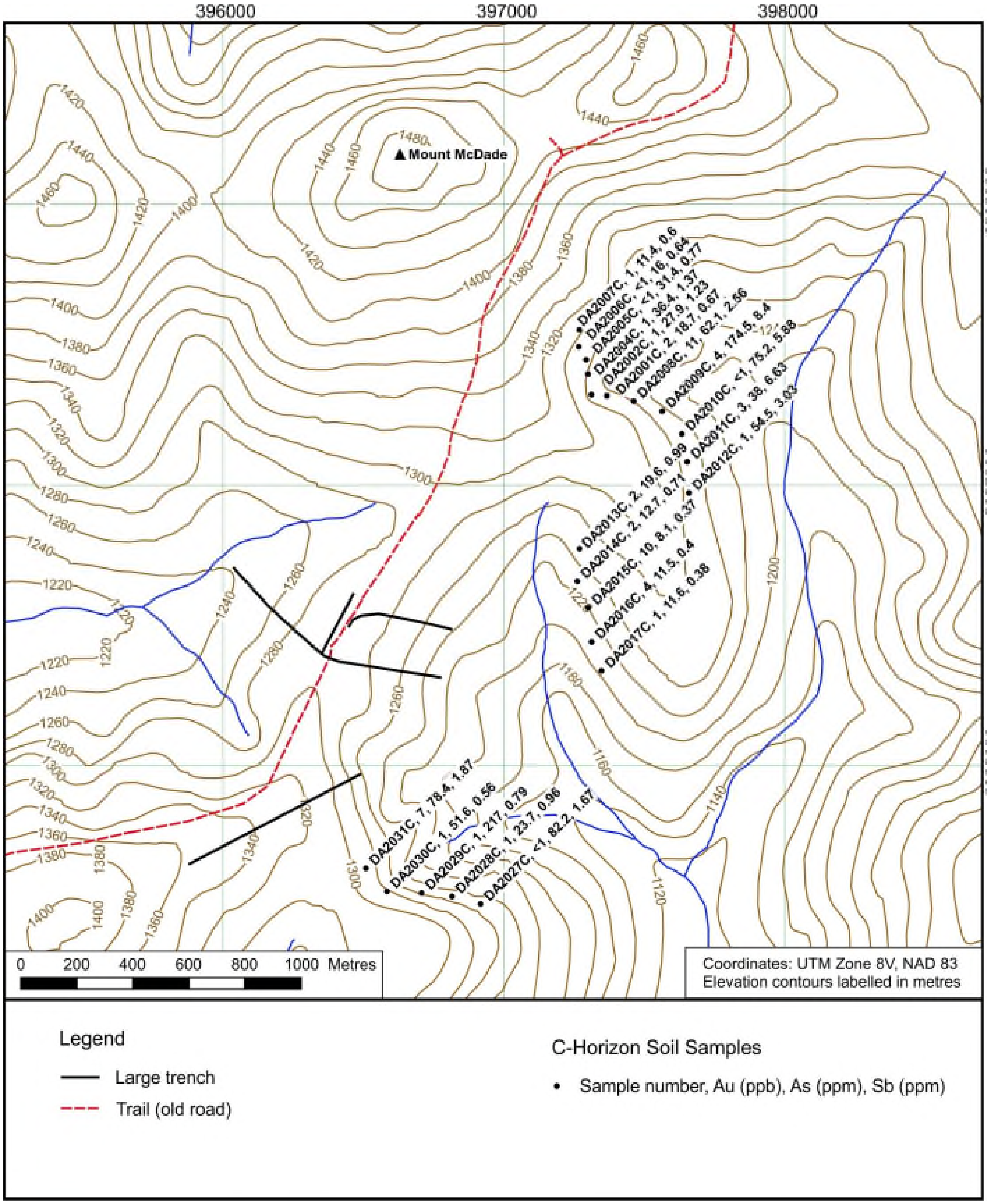


Figure 29. C-horizon soil samples collected from the Wind Zone area (this project) showing sample numbers, gold values, arsenic values and antimony values. Base map created using Geomatics Yukon data.

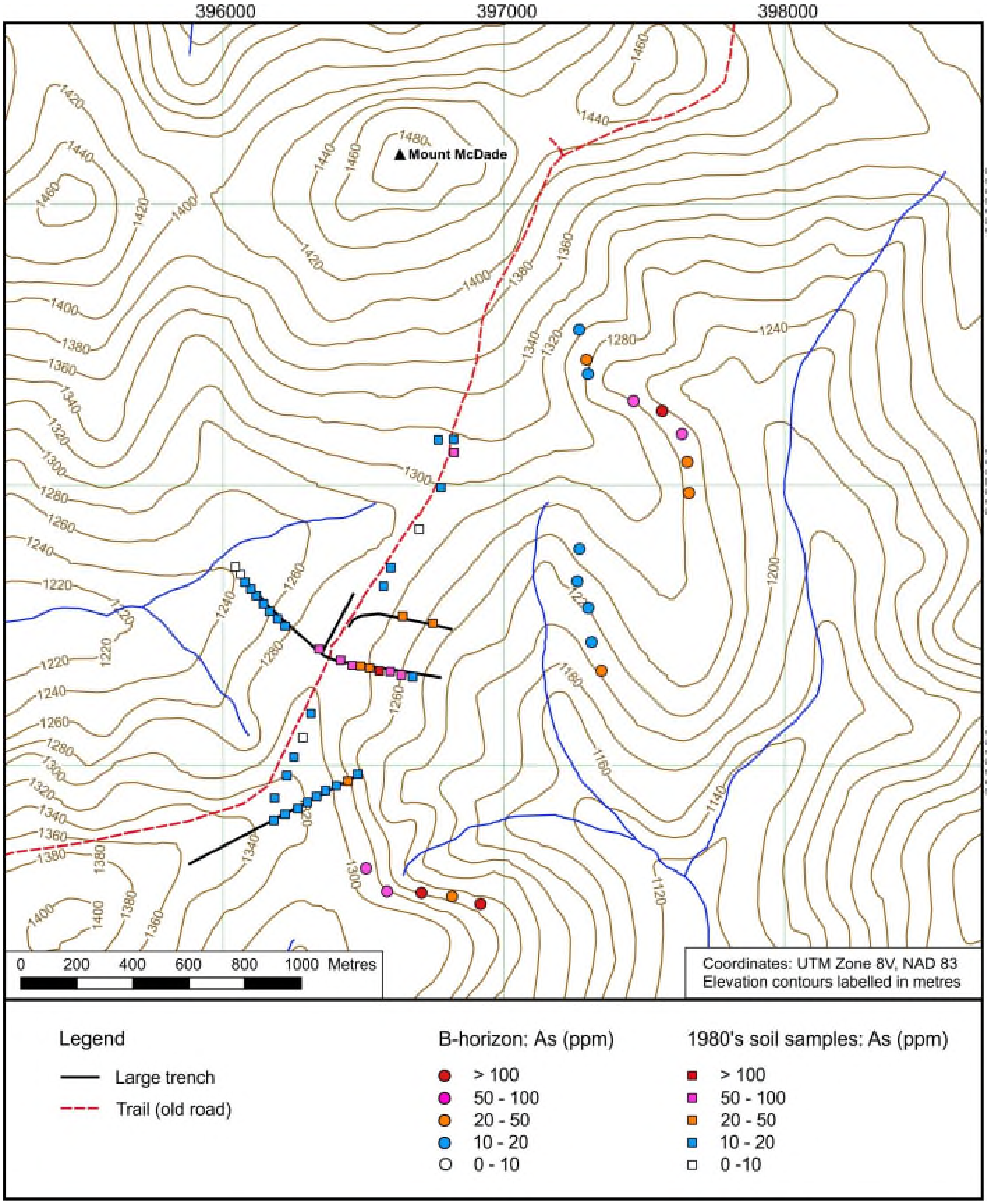


Figure 30. Arsenic in B-horizon soil samples collected from the Wind Zone area (this project) and in soil samples from 1980's exploration (includes both B-horizon and C-horizon soil samples; Keyser, 1987, Hulstein and Keyser, 1988 and Hulstein, 1988). Some 1980's soil samples from the trench area are not shown. Base map created using Geomatics Yukon data.

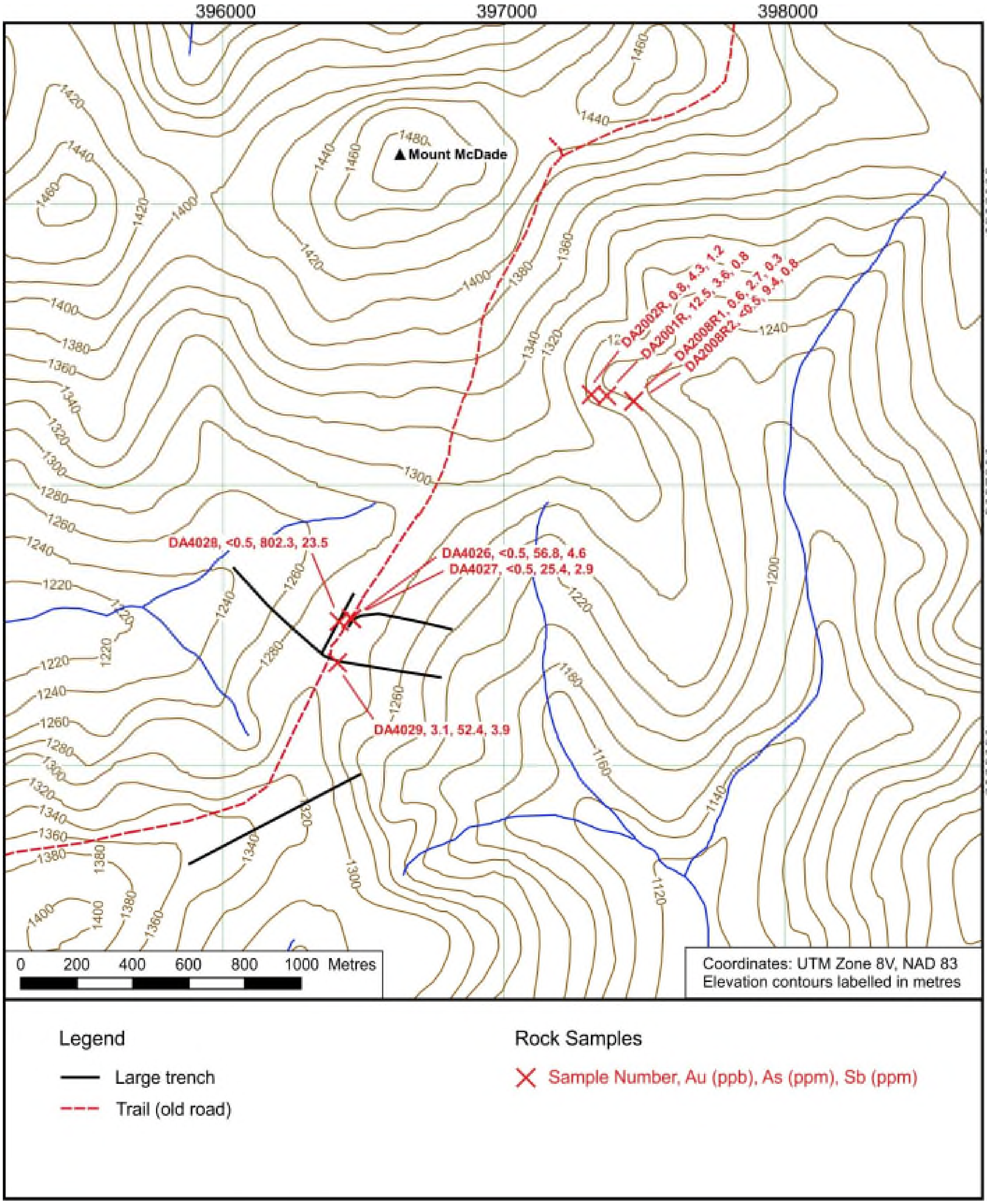


Figure 31. Rock samples collected from the Wind Zone area (this project) showing sample numbers, gold values, arsenic values and antimony values. Base map created using Geomatics Yukon data.

Lee Zone Area: Soil Samples

Nine soil pits were dug along an approximate east-west traverse to the south of the main area of trenching on the LEE Zone. These samples returned up to 25.3 ppm Sb for the B horizon and 116 ppm Sb for the C horizon (Figures 32 to 35; Table 9).

Element	Au	Ag	As	Hg	Sb
Units	ppb	ppm	ppm	ppm	ppm
B-Horizon Soil (n=9)	1	0.10	12.7	0.50	25.3
C-Horizon Soil (n=9)	12	0.03	9.2	2.21	116.0

Table 9. Maximum values obtained from 9 B-horizon soil samples and 9 C-horizon soil samples collected from the Lee Zone area (Appendices 2, 6 and 7).

Lee Zone Area: Rock Samples

Twenty-four samples of trench rubble and one piece of float were collected from the area of the Lee Zone. Several of these samples contain significant amounts of stibnite in veins, as blebs, and disseminated. Eleven of these samples returned values of > 1.0% Sb to a maximum of 13.61% Sb. Six samples returned > 10 ppm Hg to a maximum of 34.24 ppm Hg. Five samples yielded > 20 ppb Au to a maximum of 385 ppb Au. Five samples returned > 20 ppm As to a maximum of 385 ppm As (Figure36 to 38; Table 10).

Element	Au	Ag	As	Hg	Sb
Units	ppb	ppm	ppm	ppm	ppm
Rock (n=25)	385.1	0.1	34.3	34.24	136100

Table 10. Maximum values obtained from 25 rock samples collected from the Lee Zone area (Appendices 1, 4 and 5).

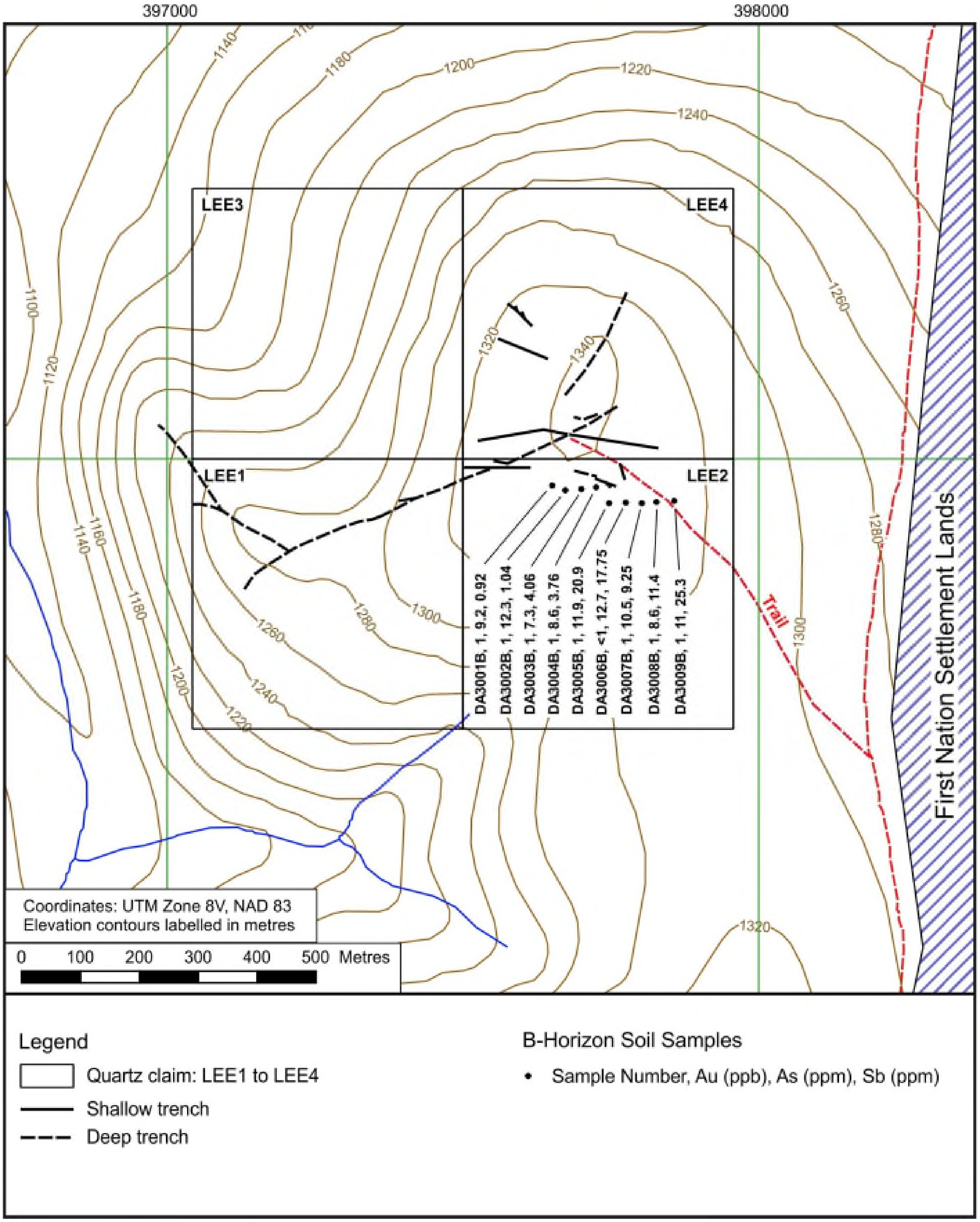


Figure 32. B-horizon soil samples collected from the Lee Zone area (this project) showing sample numbers, gold values, arsenic values and antimony values. Base map created using Geomatics Yukon data.

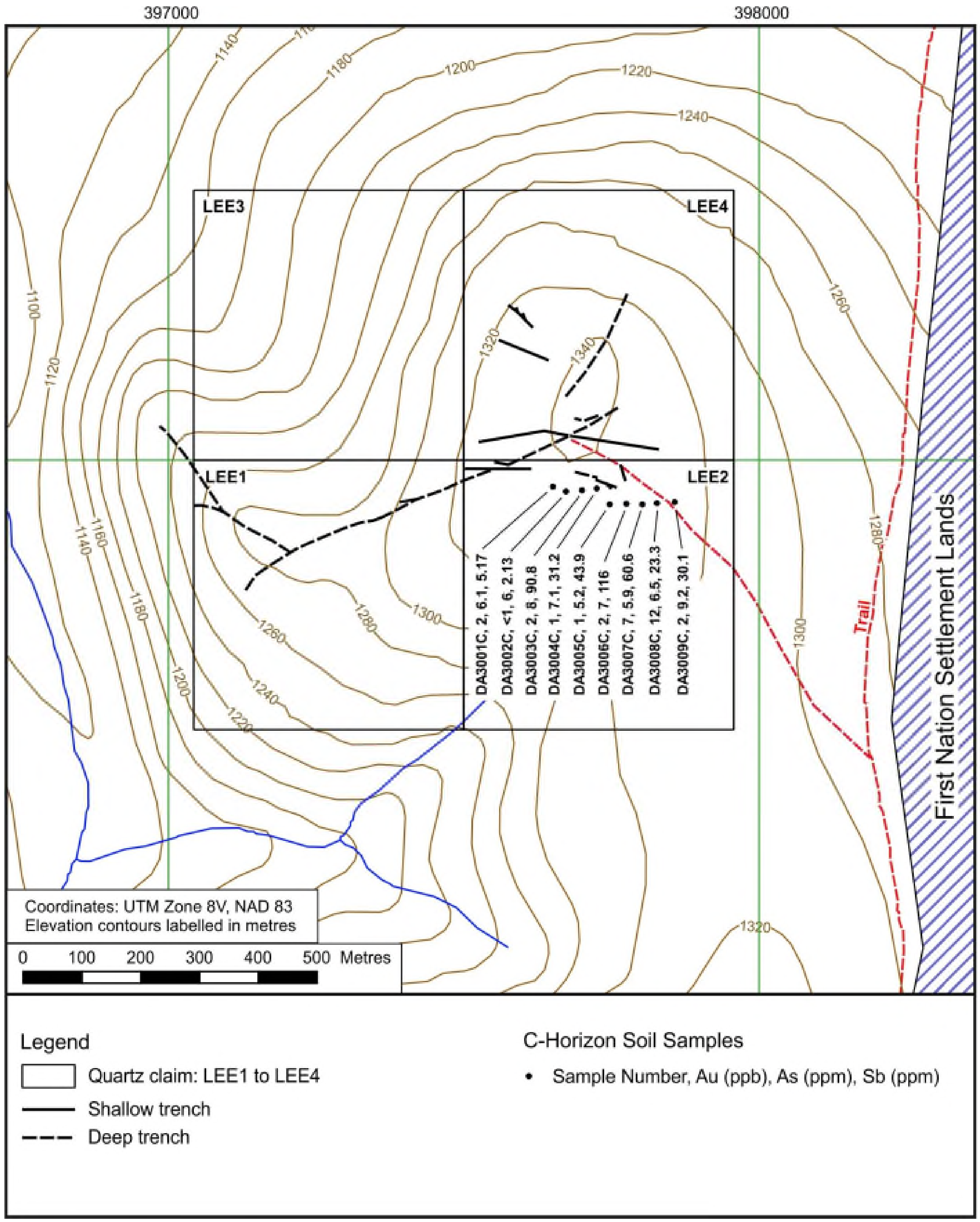


Figure 33. C-horizon soil samples collected from the Lee Zone area (this project) showing sample numbers, gold values, arsenic values and antimony values. Base map created using Geomatics Yukon data.

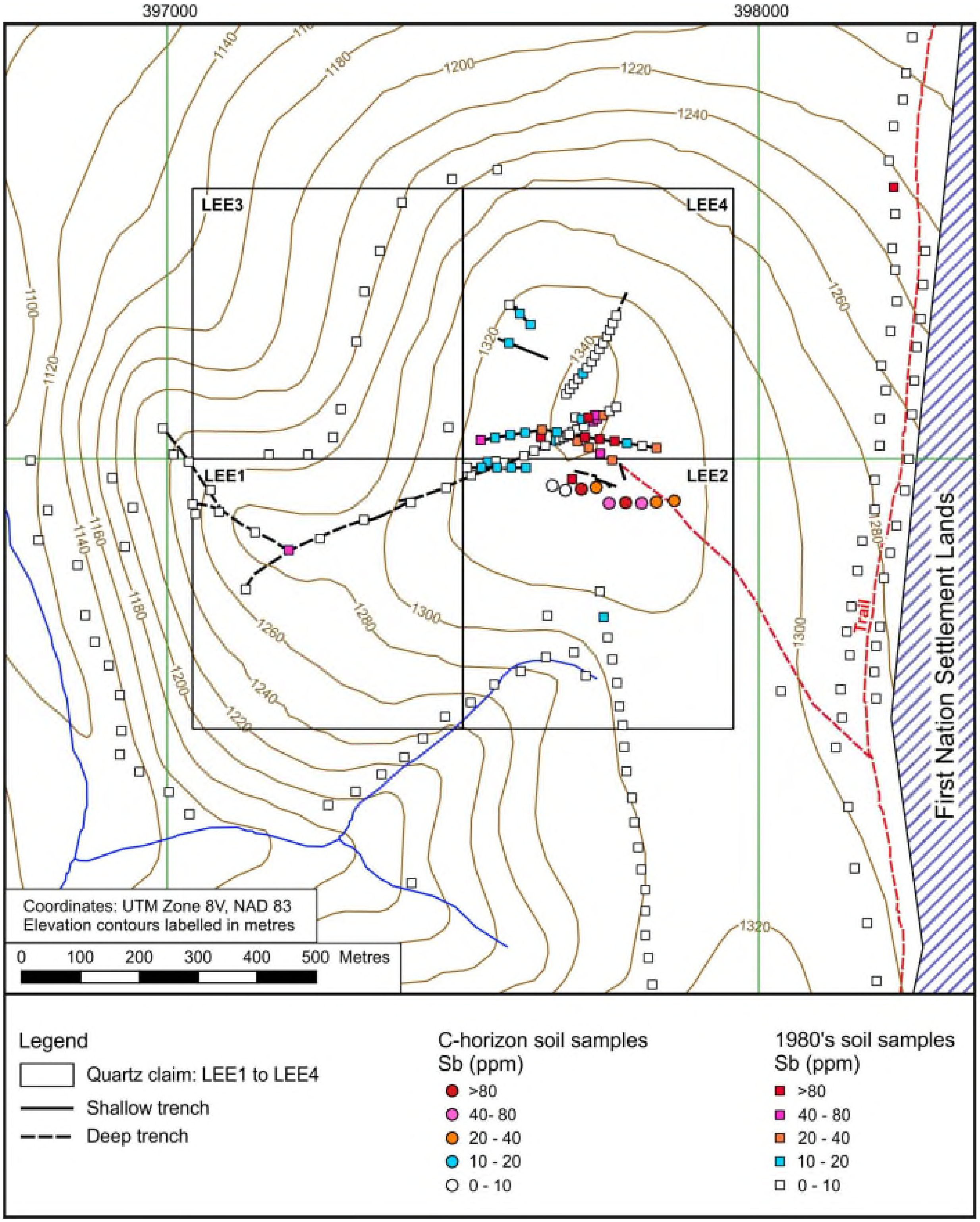


Figure 34. Antimony in C-horizon soil samples collected from the Lee Zone area (this project) and in soil samples from 1980's exploration (includes both B-horizon and C-horizon soil samples; Keyser, 1987, Hulstein and Keyser, 1988 and Hulstein, 1988). Base map created using Geomatics Yukon data.

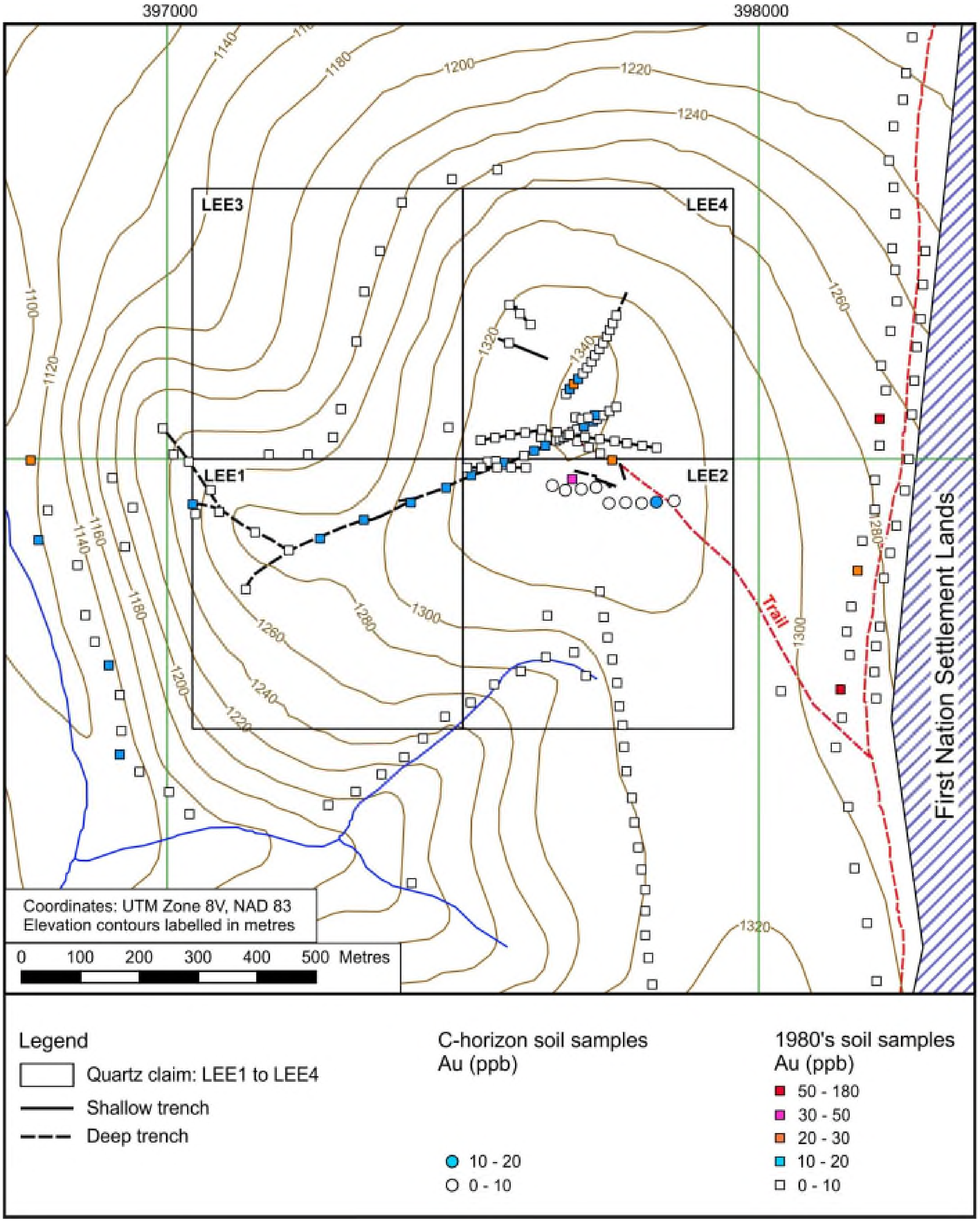


Figure 35. Gold in C-horizon soil samples collected from the Lee Zone area (this project) and in soil samples from 1980's exploration (includes both B-horizon and C-horizon soil samples; Keyser, 1987, Hulstein and Keyser, 1988 and Hulstein, 1988). Base map created using Geomatics Yukon data.

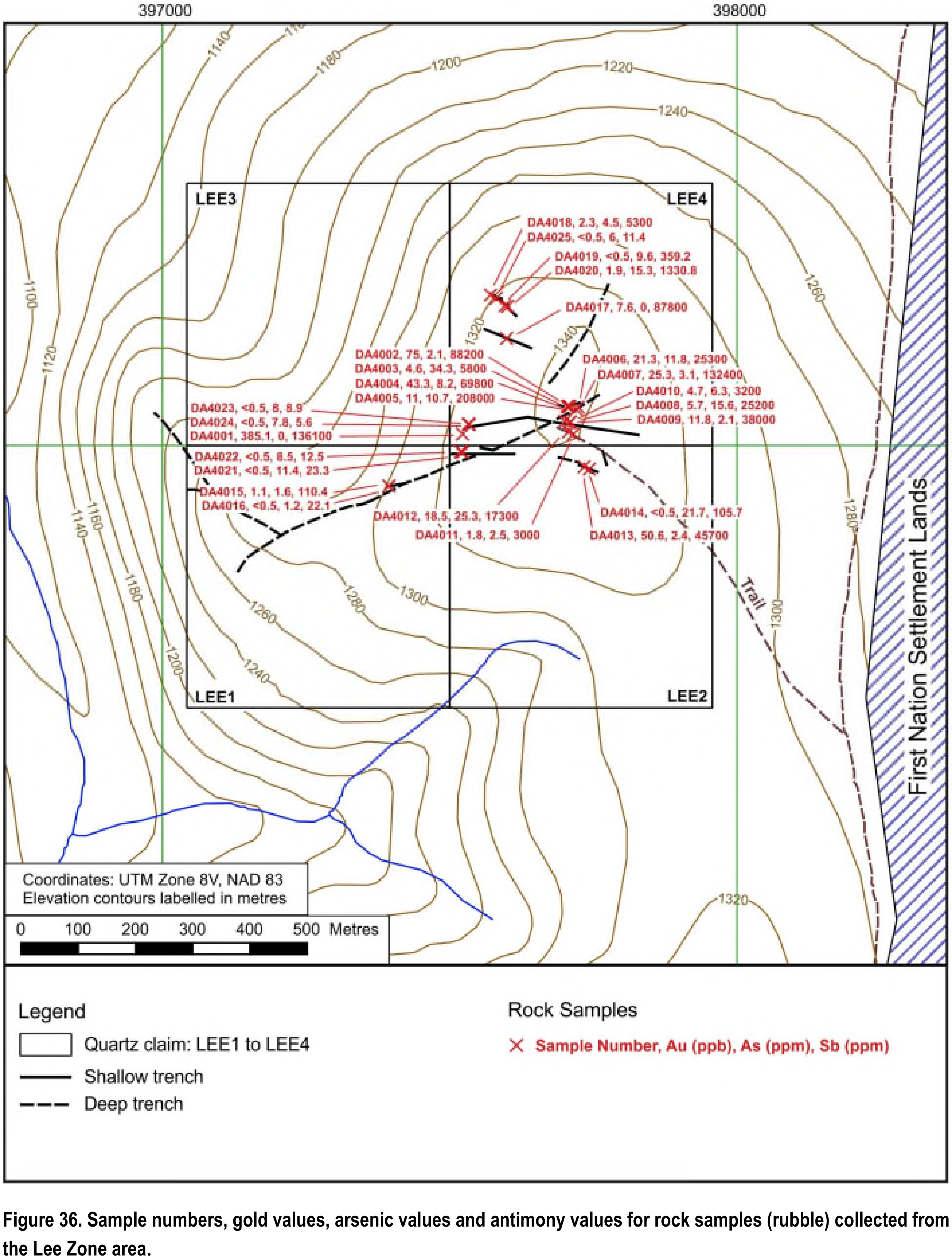


Figure 36. Sample numbers, gold values, arsenic values and antimony values for rock samples (rubble) collected from the Lee Zone area.

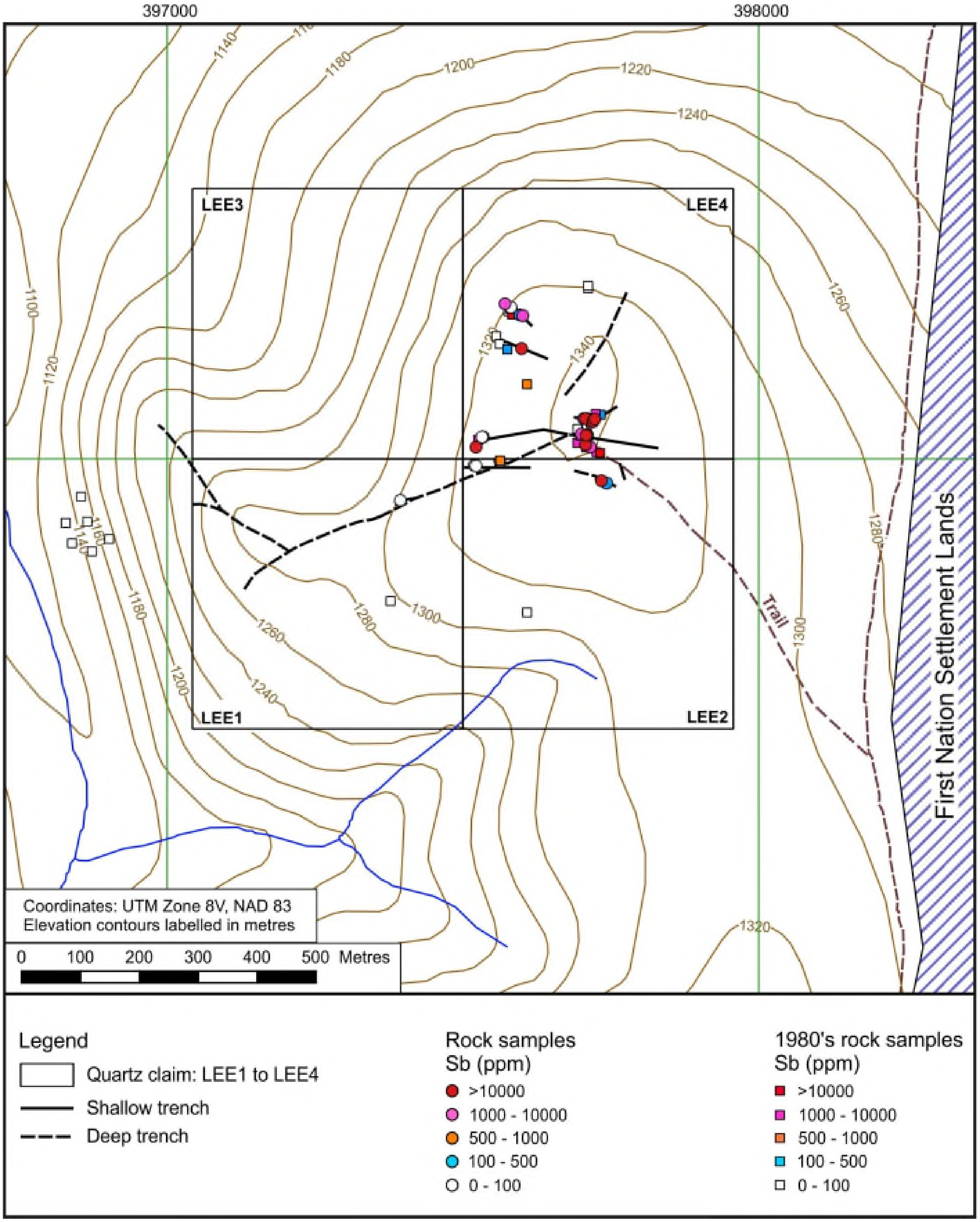


Figure 37. Antimony in rock samples (rubble) collected from the Lee Zone area (this project) and in rock samples from 1980's exploration (Keyser, 1987, Hulstein and Keyser, 1988 and Hulstein, 1988). Base map created using Geomatics Yukon data.

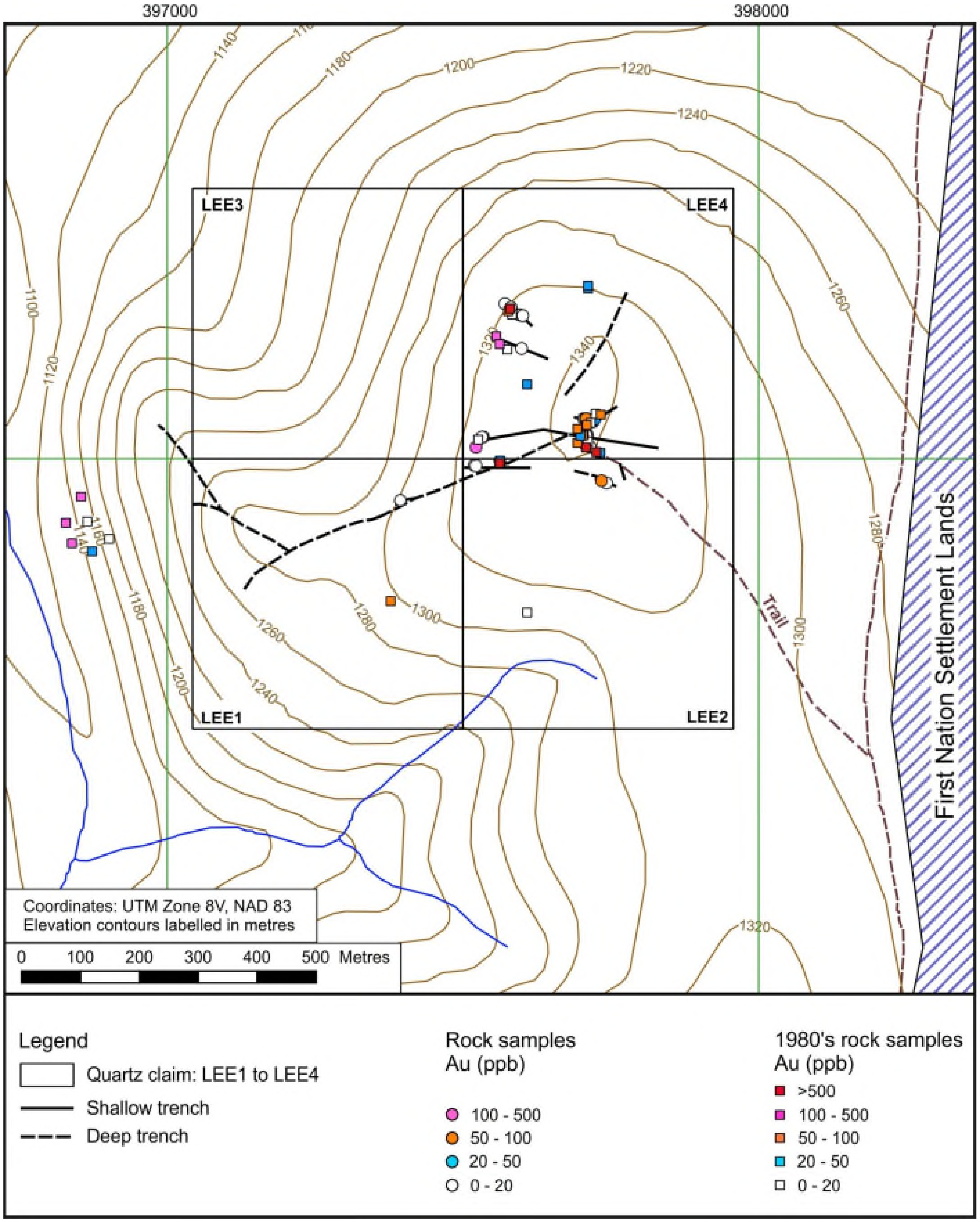


Figure 38. Gold in rock samples (rubble) collected from the Lee Zone area (this project) and in rock samples from 1980's exploration (Keyser, 1987, Hulstein and Keyser, 1988 and Hulstein, 1988). Base map created using Geomatics Yukon data.

South Branch of Lee Creek: Stream Sediments

Seven stream sediment (silt) samples were collected form the south branch of Lee Creek and its tributaries (samples DA5001 to DA5007; Figure39). These samples were collected upstream from a former sample that returned 330 ppb Au (sample 664002; Keyser, 1987). No significantly anomalous values were obtained (Table 11).

Element	Au	Ag	As	Hg	Sb
Units	ppb	ppm	ppm	ppm	ppm
Stream Sediment (n=7)	11	0.17	5.6	0.19	0.80

Table 11. Maximum values obtained from seven stream sediment (silt) samples collected from the Lee Creek drainage area (samples DA5001 to DA5007; Appendices 3 and 7).

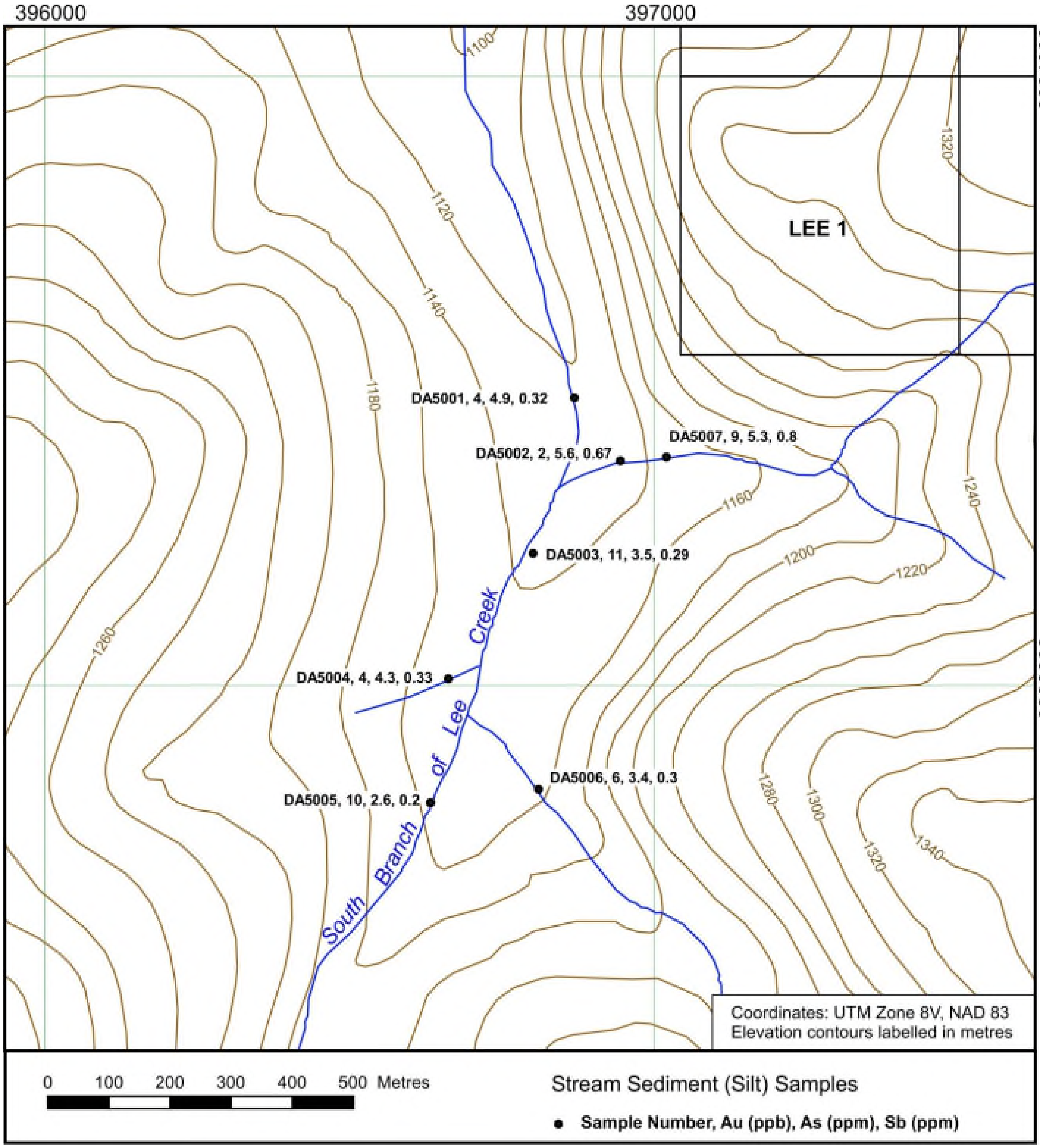


Figure 39. Sample numbers, gold values, arsenic values and antimony values for stream sediment (silt) samples collected from the south branch of Lee Creek and its tributaries.

Geology

A revised geology map of the project area is presented in Figure 40. It is primary a compilation based on Hulstein (1988) and Ryan et al. (2016) with minor modifications based upon 2017 field observations. Geological mapping in the area is severely constrained by lack of outcrop.

During the 2017 program outcrop was only observed along the ridge that includes Mount McDade. The comments presented below are based on outcrop observations on and near Mount McDade, scattered scree exposures, trench rubble and rock fragments set aside during the digging of soil pits.

Simpson Range suite: Most of the area investigated is underlain by well foliated felsic rocks of the Early Mississippian Simpson Range suite (Ryan et al., 2016). "The Simpson Range suite is characterized by highly foliated to gneissic hornblende-biotite and biotite granodiorite to intermediate orthogneiss, and is commonly K-feldspar augen textured" (Ryan et al., 2016, descriptive notes). In the project area this unit was observed in outcrop along the southern side of the ridge extending east-northeast from the summit of Mount McDade and in trench rubble, on scree slopes, as float and in rock fragments from soil pits (Figure 41). These consist mainly of non-magnetic, mainly white, weakly orangey brown weathering, weakly foliated to moderately well foliated, fine to medium-grained, felsic (siliceous) rocks with some containing an appreciable amount of biotite. Foliation is more pronounced in rocks with significant mica contents than in very siliceous rocks. A weak lineation is apparent in some examples. Minor amounts of limonitic Fe-oxide commonly occurs on fractures and on foliation planes. Minor amounts of sericite is present on foliation planes. A small proportion of narrow, fine-grained amphibolite lenses were observed within siliceous, foliated outcrops east-northeast of Mount McDade.

Whitehorse suite: Outcrop exposed near the summit of Mount McDade and along the northern side of the ridge extending east-northeast from the summit consist of hornblende-bearing diorite and quartz diorite assigned to the mid-Cretaceous Dawson Range phase of the Whitehorse suite by Ryan et al. (2016). The outcrops near Mount McDade are medium grey to medium brownish grey (very weak pervasive Fe-oxide alteration) rocks that weather medium grey to light pinkish grey weathering. Outcrops are relatively resistant to weathering and tend to form prominent, knobby outcrops (Figure 42). Rocks are subequigranular to very weakly porphyritic with most minerals between 0.25 to 2.0 mm in size. Typical examples contain 25-30% mafic minerals consisting of anhedral to subhedral hornblende with subordinate (to locally subequal) amounts of fine grained (commonly <0.5 mm) biotite. Felsic minerals consist mainly of anhedral to weakly subhedral, dull white feldspar that weathers white to (less commonly) light pink. 5-10% anhedral, light grey quartz is also commonly present. Minor amounts of anhedral to subhedral white feldspar phenocrysts (up to 5 x 3 mm) +/- hornblende phenocrysts (up to 3 x 2 mm) occur locally. Rocks are weakly to moderately magnetic and not foliated. Outcrops are moderately to strongly jointed (including a commonly occurring nearly vertical set) with local areas containing 3 or more nearly vertical joints per metre (in addition to joints with other attitudes).

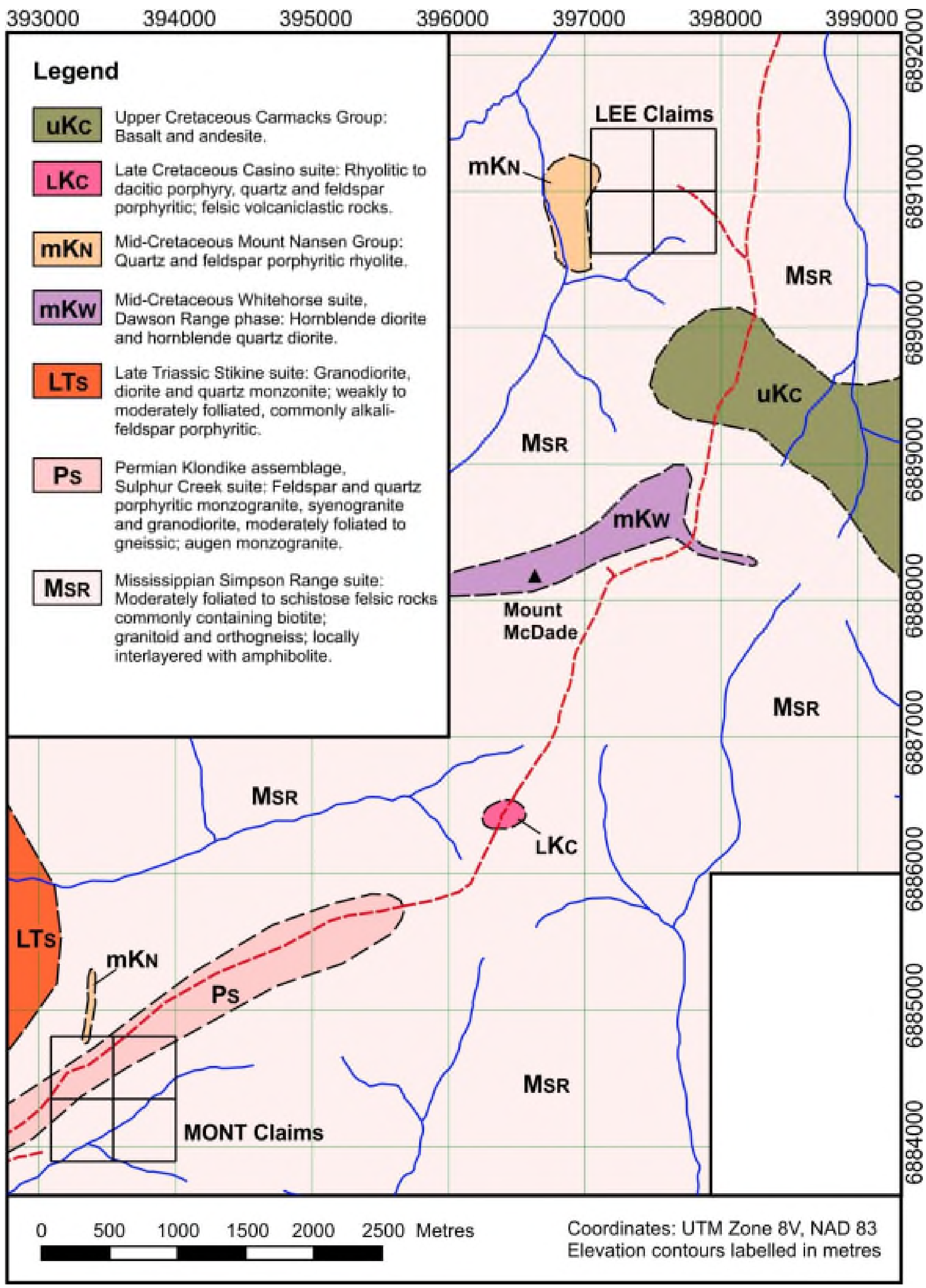


Figure 40. Geology map of the Mount McDade project area compiled from Hulstein (1988) and Ryan et al. (2016) with minor modifications based upon 2017 field observations.

Figure 41. Area of exposed scree about 20m x 20 m in size consisting of fine grained, well foliated rock composed largely of quartz with subordinate biotite (Early Mississippian Simpson Range suite; Ryan et al., 2016). Note orangey-brown weathering, View toward 090° from 397346E, 6887106N (UTM Zone 08V, NAD 83).

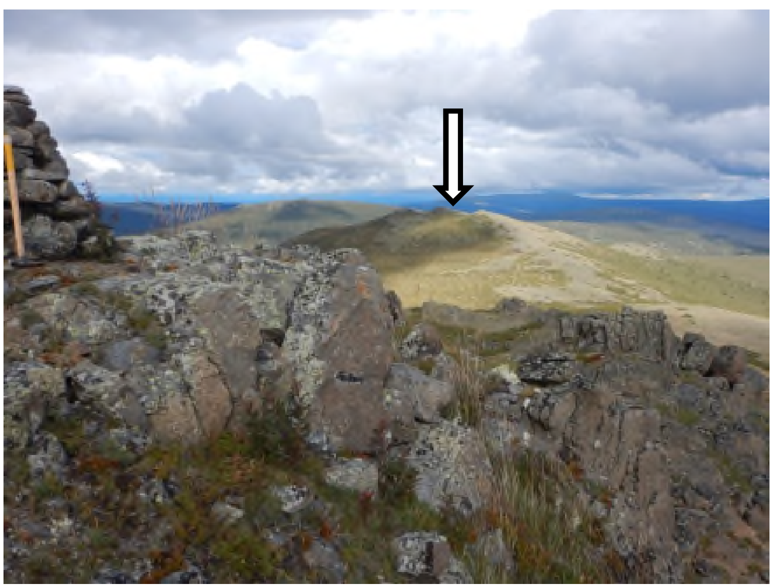


Figure 42. View toward 070° from summit of Mount McDade (396630E, 6888144N, UTM Zone 08V, NAD 83). Rock in foreground is strongly jointed (near-vertical joint set trends ~090°), weakly magnetic, subequigranular, fine-grained quartz diorite (mid-Cretaceous Dawson Range phase of the Whitehorse suite; Ryan et al., 2016).). Arrow points to contact on ridge in middle distance between quartz diorite to the north (left) and well foliated Mississippian rocks to the south (right).

Mount Nansen Group: Angular rubble and scree west of the Lee Zone is light grey (with a hint of pale green), weathers very light brown to medium orangey brown, mainly aphanitic rhyolite (or dacite). It contains 1-2% white, subhedral to (less commonly) euhedral (tabular) feldspar phenocrysts up to 4x2 mm (most have maximum dimensions of about 2 mm). The rock contains trace amounts to 0.25% round, clear to very light grey quartz phenocrysts up to 3 mm across (commonly up to 2 mm across). Up to 5% fine grained biotite is visible in some areas. Locally the rock exhibits weak, spotty Fe-oxide alteration. In some locations the feldspar phenocryst have been altered to a white clay mineral. The rock is generally not foliated to but some very weakly foliation was noted locally. The rubble is characterized by flat surfaces with sharp angular intersections suggestive of joints.

Quartz and feldspar porphyritic rhyolite containing 3-5% clear to light grey, round, glassy quartz phenocrysts up to 3 mm across (commonly up to 2 mm across) and 1-2% feldspar phenocryst pseudomorphs (altered to white clay) in a felsic, light grey groundmass is the dominant lithology in large fragments from soil pit DA2037 in the Montgomery Creek area. This rock exhibits weak to moderate spotty/disseminated, orangey-brown, limonitic Fe-oxide alteration. A small area of Mount Nansen felsic volcanic rocks was is shown by Hulstein (1988) to lie about 500 m to the northwest of this soil pit.

Casino suite: The map of Ryan et al. (2016) shows the Wind Zone as lying within rocks of the Late Cretaceous Casino suite Most of the central part of the trenched area at the Wind Zone is underlain by felsic volcaniclastic rocks including lapilli tuffs and volcaniclastic pebble conglomerates with rounded to angular fragments up to several centimetres across (Figures 43 and 44). Fragments include well foliated to schistose (basement) clasts and, less commonly, non-foliated, quartz-feldspar porphyritic rhyolite with feldspar totally altered to white clay (similar to the rhyolites described above). Possible feldspar phenocryst pseudomorphs up to 4 mm long, totally altered to pale yellowish white clay, locally form up to 5% of the matrix. Some rocks contain up to 10% irregular “clots” of aphanitic, light to dark grey quartz up to 4 mm across (phenocrysts?). In local areas the rocks contain abundant circular cavities up to 1 mm across, commonly lined with a thin coating of orangey brown Fe-oxide, that may be vesicles. Strong to intense, pervasive, aphanitic, medium orangey-brown, limonitic Fe-oxide alteration is common.

Rhyolitic rock occurs in very limited amounts near the west end of the Wind Zone trenched area. The rock is light greenish-grey and weathers light greenish-grey. The groundmass is aphanitic and siliceous, and contains (i) 3-7% white, subhedral to euhedral feldspar phenocysts (pseudomorphs) up to 6x2 mm (commonly 2-3 mm long) completely altered to white clay and (ii) 2-4% light grey to clear, round, quartz phenocrysts (“eyes”) that are up to 5 mm across (commonly about 2 mm across). These are similar to Mount Nansen rhyolites observed elsewhere and may, in fact, belong the Mount Nansen Group.

Figure 43. Fragmental volcanic rock (lapilli tuff or volcaniclastic pebble conglomerate) from Wind Zone trench (396447E, 6886497N, UTM Zone 08V, NAD83). Blue bars of scale card are 1cm wide.

Figure 44. Large clast of non-foliated, siliceous feldspar porphyry within volcaniclastic rock exhibiting pervasive Fe-oxide alteration. From Wind Zone trench (396413E, 6886513N, UTM Zone 08V, NAD83). Blue bars of scale card are 1cm wide.

Lee Zone Stibnite Mineralization

No outcrop exists in the Lee Zone area nor was any bedrock exposed during trenching in the 1980's. Observations regarding the nature of the mineralization have been made based on trench rubble. The stibnite is commonly euhedral, occurring in elongate crystals that locally exceed 2 cm in length, and may occur in "fans" that each radiate outward from a common point (Figure 45). It commonly occurs in veins and veinlets that may be quartz dominated (and commonly vuggy) or may be 100% stibnite. Stibnite also occurs in blebs and disseminated throughout the host rock, which commonly appears to be silica flooded. Interestingly, the stibnite occurs in the absence of any other sulphide minerals. The dominant lithology throughout the trench rubble of the Lee Zone consist of foliated Mississippian rocks of the Simpson Range suite and some stibnite mineralization occurs within these rocks. However, stibnite appears to be more commonly associated with non-foliated, aphanitic to fine-grained felsic rocks that commonly contain small feldspar phenocryst (generally altered to clay). It is possible that the stibnite mineralization is related to the emplacement of felsic dikes. In addition to silica flooding the host rocks may contain weak, fracture-controlled limonitic Fe-oxide alteration and (locally) weak, pervasive, light green sericite alteration. Fracture-controlled yellow and brick-red clay occurs locally. Mineralized rubble tends to weather rusty brown due to limonitic Fe-oxide alteration but stibnite-rich material tends to weather to a medium yellow colour. Based on observation made during sampling there appears to be an overall increase in argillic alteration (feldspar phenocryst +/- groundmass) toward the west in the main area of Lee Zone trenching. More work would be needed to confirm this pattern.

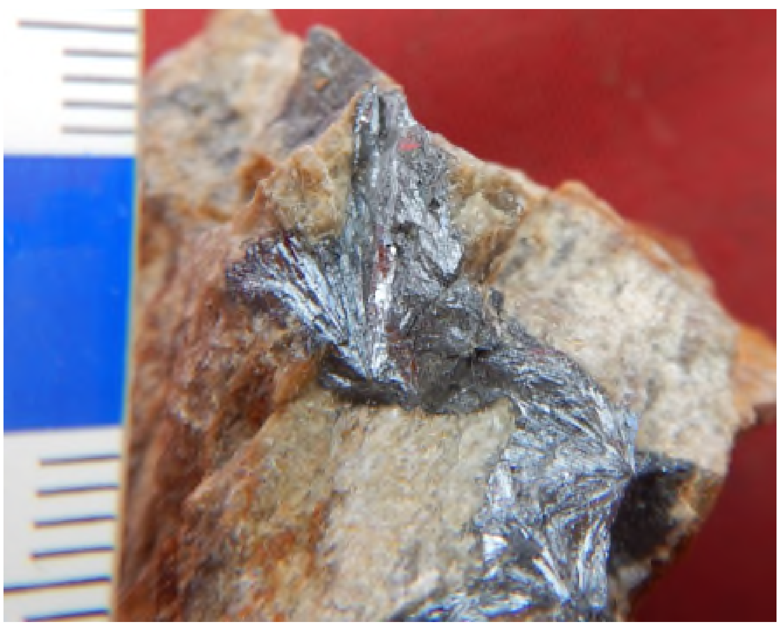


Figure 45. Stibnite-bearing trench rubble from Lee Zone (397707E, 6891024N, UTM Zone 08V, NAD83). Blue bar on scale card is 1 cm long and marking on white background are 1 mm apart.

Conclusions and Recommendations

The results of the 2017 exploration program in the Mount McDade area have further refined the exploration potential of the area. The results should be viewed in light of the fact that significant epithermal gold and silver deposits, including some with past production, occur in the Mount Nansen camp a few kilometers to the west and that recent government mapping has identified mid-Cretaceous and Late Cretaceous igneous rocks in the Mount McDade area similar to those associated with mineralization in the Mount Nansen camp.

Montgomery Creek (MONT Claims)

In the Montgomery Creek area, sampling of a soil grid established upslope from gold-bearing float discovered in the 1980's (which returned up to 15.65 g/t Au and 132.5 g/t Ag) has returned up to 28 ppb Au, 146.5 ppm As and 13.2 ppm Sb in C-horizon soil samples and up to 41 ppb Au in B-horizon samples. The sample sites that returned elevated C-horizon values are concentrated in the northeast part of the sampling grid and further sampling to the northeast and east is warranted.

Boggy ground and shallow permafrost prevented soil sampling in the immediate vicinity of where the gold-bearing float was discovered (near placer trench workings close to Montgomery Creek). Overburden drilling is recommended for this area.

Wind Zone

Soil sampling traverses were completed to the south, east and northeast of the Wind Zone on slopes above tributary streams of the south flowing McDade creek (these tributaries yielded high gold values in stream silt samples collected during 1980's exploration). The more northerly and more southerly traverses returned several high As values with up to 338 ppm As in B-horizon soil and up to 217 ppm As in C-horizon soil. The maximum value for Sb returned from these soil samples is 16.05 ppm, the maximum value for Ag is 0.65 ppm and the maximum value for Au is 15 ppb (all from B-horizon samples).

Rock sampling of the Wind Zone trenches returned up to 802 ppm As and 23.5 ppm Sb in sample DA4028 (a piece of angular rubble consisting of lapilli tuff in which the matrix has been totally replaced by limonitic Fe-oxide).

The As soil anomalies detected by the traverses south and northeast of the Wind Zone are open in nearly all directions and considerably more sampling is required to define the limits of these anomalies that occur across an area of 2 km (they may be part of one large, continuous anomaly). This sampling can initially be undertaken by hand but overburden drilling may be required for subsequent work.

Lee Zone (LEE Claims)

The soil sampling traverse south of the main Lee Zone trench area has extended the Sb soil anomaly approximately 80 m to the south-southeast and the anomaly appear to be widening in that direction. The Sb response is strongest in the C-horizon samples and the core of the anomaly is defined by values of 20 ppm to 116 ppm Sb. The core of the Sb soil anomaly now extends for about 160 m in a north-northwest to south-southeast direction with a width of up to 100 m. This lies within a broader halo where about one half of the soil samples return > 10 ppm Sb. More soil sampling is needed to test the extent and strength of this anomaly to the east-southeast. This sampling can initially be undertaken by hand but overburden drilling may be required for subsequent work. The immediate goal would be to locate a part of the anomaly with higher precious metal values.

Twenty-five rock samples of trench rubble and float from the Lee Zone collected in 2017 returned up to 13.6% Sb and 385 ppb Au. Although several samples returned potentially ore grade Sb values an examination of the trench rubble indicates that the known stibnite mineralization is too widely dispersed for economic consideration.

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Statement of Qualifications

I, Glen Prior, of 793 Birch Avenue, Sherwood Park, Alberta do hereby declare:

- That I am a self-employed geologist.
- That I am a Professional Geologist registered with the Association of Professional Engineers and Geoscientists of Alberta (Member Number M73587).
- That I graduated from Laurentian University in Sudbury, Ontario, with a B.Sc. (Honours) degree in geology in 1982, from Laurentian University in Sudbury, Ontario, with a M.Sc. degree in geology in 1987 and from Carleton University in Ottawa, Ontario, with a Ph.D. degree in geology in 1996.
- That I practiced my profession full-time from 1986 to 1991 and continuously since 1996 including 5 years with Norwin Geological Ltd. (Vice President), 5 years with Aur Resources Inc. (holding the positions of Senior Project Geologist and Senior Geologist) and 12 years with the Alberta Geological Survey (holding the positions of Geologist, Senior Geologist and Section Leader).

July 05, 2018

Sherwood Park, Alberta

Glen Prior

Appendix 1

Rock Sample Descriptions

Location Coordinates: UTM Zone 8V, NAD83

Sample	East	North	Elev. (m)	Area	Collection Date	Description	Weight to Lab (g)
DA2001R	397366	6887318	1272	Wind Zone area	2017_08_19	Sample composed of three small pieces of quartz vein material from soil pit DA2001 (largest piece is 4x3x3 cm). White to light grey quartz vein material up to 3 cm wide. No wall rock. Contains 1 to 3% very fine to fine grained disseminated pyrite. Weak to moderate fracture-controlled, moderately spotty, orangey brown, limonitic Fe-oxide. Very minor amount of fracture-controlled calcite.	170
DA2002R	397311	6887322	1275	Wind Zone area	2017_08_19	Angular clast (7x3x3 cm) from soil pit. Aphanitic, no foliation, medium grey. About 1% very fine grained disseminated pyrite. 3 to 5% very fine grained silver sulphide.	123
DA2008R1	397462	6887299	1253	Wind Zone area	2017_08_21	Clast from soil pit DA2008 (8x5x5 cm), subangular. Medium grey, aphanitic, extremely siliceous rock with one quartz veinlet evident (probably strong pervasive silicification). Unknown protolith. 1 to 2% fine grained disseminated pyrite.	258
DA2008R2	397462	6887299	1253	Wind Zone area	2017_08_21	Clast for soil pit DA2008 (20x8x5 cm), angular. Light to medium grey. Rock is composed almost entirely of aphanitic quartz. Probably from a vein. Minor (<1%) fine grained biotite in with quartz. Trace to 2% very fine grained, disseminated, silver sulphide (possibly arsenopyrite). Seems to grade into weakly foliated, felsic Mississippian (?) rock along one edge but this is uncertain.	343
DA2037R	393557	6884521	1170	Montgomery Creek	2017_09_04	Angular clast (11x4x3 cm) from soil pit (pit site DA2037). Light grey to white quartz vein material. No wall rock. Cut by multidirectional, hairline (up to 1 mm across) veinlets containing aphanitic to fine grained, discontinuous, submetallic to metallic, dark brown to black mineral that streaks yellow (Fe-oxide?). Veinlets commonly oxidized leaving cavities rimmed with orange-brown Fe-oxide. Vein also contains ~20% white, partly clay-altered, fine grained, "disseminated", anhedral feldspar.	151
DA2038R	393599	6884511	1170	Montgomery Creek	2017_09_04	Angular clast (10x5x5 cm) from soil pit (pit site DA2038). Light grey, felsic, weakly feldspar porphyritic. Feldspar is anhedral to rarely subhedral, up to 2 mm across and altered to clay. No foliation. 1-2% hairline (up to 1 mm across) veinlets composed of quartz and limonitic Fe-oxide. Weak spotty Mn-oxide (?) alteration.	315
DA2044R	393600	6884601	1189	Montgomery Creek	2017_09_06	Angular clast (6x3x2 cm) from soil pit DA2044. Felsic, light grey fine grained rock (Mississippian?). Weak fracture-controlled orangey brown limonitic Fe-oxide alteration. One limonitic fracture contains 1 to 5% very fine grained black, disseminated (along fracture) sulphide (?) that appears silver when catches sunlight. Overall only trace amounts of sulphide (?) in sample.	41
DA4001	397522	6891020	1330	Lee Zone	2017_08_25	Angular float 20x15x9 cm. In small patch of scree of mainly foliated Mississippian rock that weathers light orangey brown. Sample is white, weathers light rusty brown, not foliated. Composed mainly of fine grained white to light grey quartz with minor (1-2%) irregular shaped, yellowish white (clay-altered?) feldspar up to 3 mm across. Also trace to 1%, light grey, discontinuous quartz veinlets up to 2 mm wide. Overall 5 to 10% fine grained stibnite in irregular veinlets and veins up to 2 cm wide and in blebs up to 3 cm across. Sample is representative (not "high graded"). Similar rubble clast (12x8x8 cm) nearby (not sampled). About 10 m from excavator trench but not from trench. Photo 2590.	642

DA4002	397708	6891068	1343	Lee Zone	2017_08_25	Angular rubble (10x6x6 cm) on north side of bulldozer trench. Very irregular vein/bleb of fine to medium grained stibnite accompanied by minor (< 5%), somewhat vuggy, aphanitic, white to light grey quartz. Stibnite is massive (100% stibnite) over 2 cm locally. Sample selected for vein/bleb material (high graded; sample about 25% stibnite). Host is moderately foliated, fine grained, quartzose Mississippian rock with orangey brown weathering.	192
DA4003	397704	6891068	1344	Lee Zone	2017_08_29	Angular rubble (9x6x5 cm) in bottom of shallow bulldozer (?) trench about 2 m wide x 0.4 m deep. On one edge of rock there is an aphanitic, light grey, vuggy quartz vein with 1 to 5% very fine to fine grained, disseminated to blebby stibnite. Remainder of rock flooded by light grey to light yellowish grey, aphanitic, locally vuggy quartz veinlets (irregular, discontinuous) grading to strong, pervasive silicification. Within this siliceous rock are 10 to 20% dispersed, white, soft, anhedral (clay altered) feldspar pseudomorphs. No stibnite noted in host rock (only in vein). Weak to moderate, light brown, spotty to pervasive limonitic Fe oxide.	234
DA4004	397709	6891068	1343	Lee Zone	2017_08_29	Angular rubble (10x8x5) cm in bottom of bulldozer trench about 2 m wide and 0.4 m deep. Breccia of aphanitic, light grey to white rock with fragments from <1 cm to several cm's across. This rock locally displays pervasive, orange brown Fe oxide alteration and locally blebby to pervasive Mn oxide. Breccia fragment edges are angular to rounded. Interfragment space filled with blebs and irregular veins and veins of 100% fine to coarse grained stibnite with some euhedral crystals up to 1 cm long (most are <0.5 cm long). Largest mass of stibnite is about 3x3x1 cm (very irregular boundaries). Along one edge of rock there is a vuggy, aphanitic, light grey, Fe-oxide stained quartz vein that is not directly in contact with stibnite. Surface of rock is mainly a light rusty brown (Fe-oxide stain) but surface weathering locally changes to distinct yellow over stibnite rich areas (yellow oxidation product) - locally on broken surfaces this is aphanitic and medium yellow. Overall about 5 to 20% stibnite in rock sample (not high graded). Collected very close to DA4002 location.	307
DA4005	397707	6891068	1348	Lee Zone	2017_08_29	Angular rubble (7x5x4 cm) about 2 m west of DA4002 and DA4003 on north wall of same trench (about 2 m wide x 0.4 m deep). Quartz veined and silica flooded rock composed mainly of light grey, aphanitic quartz (locally slightly vuggy) with locally up to 50% white, anhedral, soft (argillic) feldspar pseudomorphs. Rock contains 3 to 5% fine to medium grained, anhedral to subhedral stibnite in irregular lenses and veinlets up to 5 mm across that consist of 100% stibnite.	168
DA4006	397720	6891063	1345	Lee Zone	2017_08_29	Angular rubble (12x8x5 cm) in bulldozer trench about 2 m wide x 0.5 m deep. Quartz vein 5 cm wide composed of light grey to clear, aphanitic to fine grained, anhedral quartz. One margin of vein is strongly vuggy. Local weak fracture-controlled to pervasive Fe oxide alteration. Vein appears to grade into siliceous (silicified ?) host rock containing up to 50% white, anhedral, soft (clay altered) feldspar pseudomorphs. One lens/bleb of massive (100%), fine to medium grained stibnite (some euhedral) occurs near margin between quartz vein and host rock. The stibnite bleb/lens is up to 1 cm across. Minor amount of stibnite also occurs in vein (trace to 0.5% stibnite in vein). Overall about 3 to 5% stibnite in rock.	340

DA4007	397723	6891067	1344	Lee Zone	2017_08_29	Angular rubble (18x10x3 cm) about 4 m north of DA4006 in same trench (about 2 m wide x 0.4 m deep). Vein of pure stibnite (fine to medium grained, some as elongate, euhedral crystals) 1 to 2 cm wide rimmed on both sides by vuggy quartz. Overall about 50% stibnite in rock. Quartz is moderately stained by rusty brown Fe oxide. Some stibnite areas coated by medium canary yellow/mustard yellow oxidation product.	335
DA4008	397710	6891041	1343	Lee Zone	2017_08_29	Angular rubble (12x10x4 cm) on north side of excavator trench. Light pinkish grey rock composed mainly of light grey, aphanitic to fine grained quartz with 10 to 40% clay altered feldspar pseudomorphs (anhedral to rarely subhedral, soft, white to yellowish brown (Fe oxide stain) up to 1 mm across). A few hairline to 1 mm quartz veinlets cut rock and there may be pervasive silicification as well. Along one side of rock is a veinlet up to 4 mm wide (generally nearer to 2 mm) of pure, fine to medium grained stibnite (some euhedral - elongate/tabular). The stibnite does not appear to be directly associates with quartz veining. Rock mainly has weak Fe-oxide coating. The side with the stibnite veinlet has a medium brownish yellow coating. The pinkish grey colour of the host rock is due to trace to 1%, disseminated, fine-grained (hematitic?) Fe oxide .	491
DA4009	397708	6891040	1344	Lee Zone	2017_08_29	Angular rubble (10x5x5 cm) on top of excavator rubble pile about 2 m south of DA4008. Very fine to fine grained, light grey rock composed of 20-40% light grey, anhedral quartz, 60-80% white, anhedral feldspar and about 5% very fine grained "specks" of dark brown mineral that may be biotite. Surfaces have a dark rusty brown Fe-oxide coating. No foliation. Surfaces are mainly planar and appear to be joint surfaces. Rhyolite dike? Rock cut by a few hairline veinlets quartz veinlets/ Also cut by a 2 to 8 cm wide vein of pure fine to medium grained stibnite (some euhedral). Overall about 1-3% stibnite in rock.	215
DA4010	397700	6891042	1347	Lee Zone	2017_08_29	Angular rubble (10x8x6 cm) on top of excavator trench pile a small distance north of sample DA4009. Aphanitic to fine grained, light brownish grey, quartz-rich rock that is either a vein or a pervasively silicified rock. The rock is cut by numerous irregular hairline quartz veinlets. Some small vuggy cavities. Weak fracture-controlled limonitic Fe-oxide. Local weak pervasive light green sericite alteration. Locally a few (<0.25%) fracture controlled crystals up to 5 mm long, tabular, euhedral, soft (hardness of 2 to 3), white, somewhat transparent crystals that may be anhydrite (no HCl reaction on scratched surfaces). Outer surface is stained weak rusty brown. One irregular bleb of pure, fine to medium grained stibnite (some euhedral) 1 to 2 cm across, probably situated along a fracture. Overall rock contains 0.5 to 2% stibnite.	502
DA4011	397715	6891020	1339	Lee Zone	2017_08_29	Angular rubble (12x6x5 cm). North side of access road (which is equivalent to a shallow bulldozer trench ~ 2 m wide and 40 to 50 cm deep). Light grey, weathers medium rusty brown except for stibnite-rich side that weathers medium brownish-yellow. Mainly aphanitic to very fine grained light grey quartz - either a vein of a pervasively silicified rock. Weak fracture-controlled, orangey brown Fe-oxide. Weak disseminated to spotty Mn-oxide. Minor quantity of hairline quartz veinlets. Local weak pervasive light green sericite alteration. Along one edge of rock there is a veinlet of stibnite 1 to 3 cm thick. Overall about 0.5 to 2% stibnite in rock.	540

DA4012	397707	6891024	1340	Lee Zone	2017_08_29	Angular rubble (15x10x6 cm). North side of bulldozed access road. Pervasively silicified rock or quartz vein. Light grey, weathers dark rusty brown (Fe-oxide). Mainly composed of aphanitic to very fine grained quartz. Weak pervasive light green sericite alteration. Minor quantity of hairline (up to 1 mm) quartz veinlets. Weak, fracture-controlled, orangey-brown Fe-oxide. Locally parallelism of quartz veinlets imparts a weak planar fabric. Fine to coarse grained stibnite (some euhedral) is fracture controlled to blebby (locally up to 1 cm across). Some stibnite occurs as fans of radiating acicular/tabular crystals radiating outward from wallrock (suggests open space filling). Stibnite is not directly associated with quartz (appears to have been introduced late). Overall about 2 to 5% stibnite in rock.	537
DA4013	397734	6890963	1330	Lee Zone	2017_08_29	Angular rubble (8x8x4 cm) from bulldozer trench about 2 m wide and 0.8 m deep consist of two domains. Domain 1: light grey, aphanitic quartz (vein or pervasively silicified rock) cut by hairline (up to 1 mm) aphanitic quartz veinlets, weathers medium to dark rusty brown, weak fracture-controlled Mn-oxide, weak fracture-controlled, orangey brown, limonitic Fe-oxide. Domain 2: Vuggy quartz vein. A veinlet of fine to medium grained stibnite (some euhedral) lies at or near the contact between the two domains. A minor amount of stibnite also occurs in Domain 1 as small (< 5 mm) blebs probably related to fractures.	220
DA4014	397743	6890959	1330	Lee Zone	2017_08_29	Angular rubble (10x5x4 cm) from bulldozer trench about 2 m wide by 0.5 m deep. Light grey (weathers medium rusty brown) rock composed mainly of light grey, aphanitic to fine grained quartz (vein or pervasively silicified rock) cut by aphanitic quartz veinlets up to 5 mm wide. Weak to moderate fracture-controlled to pervasive, light brown to yellow-brown, limonitic Fe-oxide. 1 to 2% fine grained, disseminated, black metallic mineral with yellow streak and hardness of 4 to 5 (possibly Mn-oxide or Fe-oxide).	199
DA4015	397394	6890929	1306	Lee Zone	2017_08_30	Angular rubble (15x7x6 cm) from bulldozer pushed rubble pile at west end of trench (~2 m wide by 1 to 1.5 m deep). Light brown weathering (very weak Fe-oxide coating), fine grained, ~80% white, anhedral feldspar (pseudomorphs) and 20% quartz. Feldspar totally altered to clay (strong argillic alteration). Trace to 0.5% hairline quartz veinlets. Weak spotty fracture-controlled orange-brown limonitic Fe-oxide. Rhyolite?	328
DA4016	397394	6890930	1306	Lee Zone	2017_08_30	Angular rubble (20x15x10 cm) about 1 m north of DA4015. Similar to DA4015 but more siliceous (probable pervasive silicification). White, weathers light grey to light brown. Weak hairline quartz veinlets. Feldspar appears to be argillicly altered but less so than in DA4015. Weak fracture-controlled orangey brown limonitic Fe-oxide. Weak local hairline to veinlets (up to 1 mm wide) of white clay. Rhyolite?	504
DA4017	397599	6891186	1333	Lee Zone	2017_08_30	Angular rubble (15x10x8 cm). North side of excavator pit on rubble pile. Light waxy green to light grey rock, weathers light greenish grey to locally brownish yellow (probable mix of Fe-oxide and Sb-oxide). Aphanitic, siliceous, not foliated. Weak to moderate pervasive sericite alteration (waxy green). Rock appears to have been shattered. Minor vein/veinlet quartz. Minor fracture-controlled yellow and brick red clay in irregular veinlets. 5-15% fine to coarse grained stibnite, some euhedral, some radiating outward from point (fan-like). Stibnite is fracture-controlled, blebby and disseminated. Dacite?	420
DA4018	397571	6891262	1323	Lee Zone	2017_08_30	Angular rubble (12x10x5 cm) on rubble pile pushed by bulldozer at end of bulldozer trench. Vuggy quartz vein 2-3 cm wide cutting light greenish-grey, aphanitic, sericitic host rock (Dacite?). Quartz vein (~25% of sample) contains ~1% black, metallic, possibly "bladed" mineral with hardness of 4-5 with a medium orange-brown streak (possibly an Fe-oxide). Vein also contains 1-5% brick red clay that locally has a bladed habit.	464

DA4019	397596	6891243	1332	Lee Zone	2017_08_30	Subangular rubble (10x6x4 cm) from bulldozer trench. Aphanitic, light grey, siliceous rock cut by irregular quartz veins up to 2 cm wide. A bladed mineral up to 10 mm long by 1 mm wide, multidirectional, locally forming fan-like masses is now represented by hollows (creating vugginess) commonly filled by brick-red clay. Vein also contains trace amount of black metallic mineral with hardness of 4-5 and rusty yellow-brown streak (Fe-oxide?)	214
DA4020	397601	6891242	1329	Lee Zone	2017_08_30	Angular rubble (20x15x10 cm) from bulldozer trench. Quartz healed breccia of light greyish-white, aphanitic, siliceous (probably silicified) rock. Quartz "filling" consists of aphanitic, irregular, multidirectional quartz veinlets and veins up to 5 mm wide. A bladed mineral up to 10 mm long by 1 mm wide that commonly radiates outward from a common point (up to 360°) now represented by hollows commonly coated by aphanitic, pale, brick-red mineral (probably stibnite casts). Some casts partly filled by black metallic mineral with a hardness of 4-6 with a rusty orange-brown streak (Fe-oxide?). Black mineral also occurs in blebs up to 3 mm long.	294
DA4021	397519	6890989	1337	Lee Zone	2017_08_30	Angular rubble (13x10x8 cm) from rubble pile on north side of excavator trench. White, light brown weathering, felsic, aphanitic. Weak to moderate silicification (discontinuous veinlets and pervasive). Moderate pervasive argillic alteration (replacement). Weak fracture-controlled Fe-oxide (light rusty brown limonitic). Local pinkish colouration.	578
DA4022	397522	6890988	1333	Lee Zone	2017_08_30	Angular rubble (15x10x5 cm) about 3 m east of DA4021. Rubble pile on north side of excavator trench. Dark reddish brown, weathers dark reddish brown, mainly aphanitic to very fine grained, siliceous, a few (0.5 to 1%) anhedral to weakly subhedral feldspar phenocrysts (dacite?). Weak foliation. Moderate to strong, pervasive, aphanitic hematite alteration. Moderate to strong pervasive chloritization (dark green, fine grained). ~5% quartz veinlets parallel to foliation. Not magnetic.	388
DA4023	397534	6891037	1332	Lee Zone	2017_08_30	Angular rubble (15x10x6 cm) from rubble pile on north side of excavator trench. Light yellowish brown, weathers medium rusty brown (Fe-oxide stain), not foliated. Aphanitic to fine grained, composed mainly of approximately equal amounts of aphanitic, light grey quartz and pale yellow, fine grained (~1 mm), anhedral feldspar pseudomorphs (clay). Moderate pervasive/replacement argillic alteration. Minor amount of fracture-controlled hairline quartz veinlets. very weak fracture-controlled and spotty Mn-oxide (rhyolite?).	553
DA4024	397532	6891037	1332	Lee Zone	2017_08_30	Angular rubble (15x10x6 cm) from rubble pile on north side of excavator trench. White, aphanitic to very fine grained, weathers white to medium rusty brown (Fe-oxide), not foliated (dacite?). Moderate pervasive/replacement argillic alteration (all feldspar altered to white clay but overall rock is quite competent). Weak fracture-controlled quartz (+/- pervasive silicification). Weak fracture-controlled Fe-oxide (medium yellowish rusty brown, limonitic). Minor amount of pale yellow clay as veinlets. Very weak fracture-controlled to spotty Mn-oxide.	369
DA4025	397581	6891256	1324	Lee Zone	2017_08_30	Angular rubble (20x10x8 cm) from bulldozer trench. White, white to medium brown (Fe-oxide) weathering, not foliated, siliceous, aphanitic to fine grained with feldspar altered to white clay (dacite?). Very minor amount of fracture-controlled quartz (hairline veinlets of aphanitic quartz) +/- pervasive silicification. Very weak fracture-controlled and spotty Fe-oxide (medium yellowish brown, limonitic). Weak fracture controlled and spotty Mn-oxide.	722

DA4026	396458	6886525	1272	Wind Zone	2017_09_08	Angular rubble (19x10x9 cm) from bulldozer rubble pile. Medium orangey brown, weathers medium rusty brown. Rock is dominated by aphanitic, medium orangey brown, limonitic Fe-oxide (intense pervasive Fe-oxide alteration). ~10% of rock consists of irregular "clots" of aphanitic, light to dark grey quartz up to 4 mm across. ~5% of rock consists of anhedral pseudomorphs up to 4 mm across of pale yellowish white clay that were probably feldspar (phenocrysts?). On the weathered surface there are subtle indications that this rock is fragmental.	376
DA4027	396458	6886523	1272	Wind Zone	2017_09_08	Angular rubble (20x10x3 cm). Volcaniclastic rock (lapilli tuff) with 25-50% angular to rounded fragments up to 5 cm across. Matrix is totally replaced by aphanitic, orangey brown, limonitic Fe-oxide (intense pervasive Fe-oxide alteration). Fragments include strongly foliated (schistose) felsic rock with muscovite and biotite on foliation planes (Mississippian?).	447
DA4028	396414	6886514	1273	Wind Zone	2017_09_08	Angular rubble (15x8x8 cm). Volcaniclastic (?) rock totally replaced by orangey brown, aphanitic, limonitic Fe-oxide.	361
DA4029	396408	6886367	1274	Wind Zone	2017_09_08	Angular rubble (16x10x5 cm) from west side of excavator trench. White, rusty-brown weathering, aphanitic, siliceous, strong spotty to pervasive white clay alteration (probably after feldspar). Abundant, commonly circular, cavities up to 1 mm across generally with thin coating of orangey-brown Fe-oxide (possibly vesicles). Weak spotty Mn-oxide. Up to 1 cm thick weathering rind of medium to dark (rusty) brown Fe-oxide (possibly goethite).	550

Appendix 2

Soil Pit and Soil Sample Descriptions

Location Coordinates: UTM Zone 8V, NAD83

Site	DA2001	DA2002	DA2003
East	397366	397311	397272
North	6887318	6887322	6887347
Elev. (m)	1272	1275	1275
Area	Wind Zone area	Wind Zone area	Wind Zone area
Collection Date	2017_08_19	2017_08_19	2017_08_19
Slope	moderate to 340°	moderate to 050°	moderate to 055°
Vegetation	lichen, moss	lichen, moss, stunted buck brush	moss, stunted buck brush
Pit Depth (cm)	50	50	52
Pit Soil Horizon Descriptions	0-10 cm: Ah (vegetation mat) 10-11 cm: Ash. 11-50 cm: C. Scree.	0-12 cm: Ah (organic). 12-50 cm: C horizon. Scree. Permafrost encountered at 50 cm.	0-10 cm: Moss. 10-50 cm: Decaying moss (~peat). 50-52 cm: Ash. Light grey, silt to fine sand Permafrost encountered at 50 cm.
Rock Fragments	Mainly very felsic, aphanitic, weakly sericitic, with weak to moderate foliation. Generally exhibit weak, medium orange-brown foliation/fracture/spotty FeOx alteration (limonitic).	Mainly very siliceous and aphanitic with nil to very weak foliation. Locally trace disseminated pyrite. Two rock fragments noted with abundant very fine grained disseminated sulphide.	
C Horizon Sample Number	DA2001C	DA2002C	na
C Horizon Sample Depth	45-50	45-50	
C Horizon Sample Description	Medium orange-brown. Very angular scree with essentially no silt or sand. Clasts up to 15 cm across. Clasts > 3 cm across excluded from sample.	Medium (orange) brown. Silt to very fine sand. 40-60% larger clasts, angular, up to 10 cm across. Clasts > 3 cm across excluded from sample.	
B Horizon Sample Number	na	na	na
B Horizon Sample Depth			
B Horizon Sample Description			
Comment			

DA2004	**DA2005**	**DA2006**
397299	397293	397266
6887395	6887446	6887493
1267	1277	1269
Wind Zone area	Wind Zone area	Wind Zone area
2017_08_20	2017_08_20	2017_08_20
moderate to 120°	moderate to 070°	moderate to 070°
buck brush, small shrubs, lichen	buck brush, other small shrubs, lichen, minor moss	buck brush, other low shrubs, moss, lichen
70	70	70
0-8 cm: Organic (Ah). 8-20 cm: Ash. 20-30 cm: Upper B. Reddish brown. 30-42 cm: B. Medium brown. Silt to fine sand with <5% larger clasts. 42-70 cm: C. Scree.	0-10 cm: Ah. 10-20 cm: Ash. 20-70 cm: B/C. Medium brown, mainly very fine to fine sand with minor silt, 10-20% larger clasts to 20x10x5 cm, angular to subangular.	0-22 cm: Ah 22-35 cm: Ash. Light grey to greyish white, very fine to fine grained sand, mainly white feldspar with subordinate clear quartz and a mafic mineral (possibly hornblende), no coarse clasts present 35-70: C. Permafrost at 70 cm.
Majority are biotite bearing, fine grained quartzose rocks with moderate to strong foliation (possibly Mississippian). A minority are siliceous, aphanitic rocks with little or no foliation, some of these contain quartz veining and light green sericite and a small minority display argillic alteration.	Mainly aphanitic and siliceous with weak foliation and no biotite, some with weak FeOx and MnO on fractures. A small percentage contain biotite. Probably Mississippian. A minority appear to be feldspar porphyry.	
DA2004C	**DA2005C**	**DA2006C**
65-70	65-70	65-70
Medium (slightly orangey) brown, silt to fine sand matrix. 40-60% larger clasts, angular to subangular, up to 30x10x10 cm. Clast supported. Clasts > 2 cm across excluded from sample.	Medium brown, mainly very fine sand with minor silt. 10-20% larger clasts. <1% organics (fine roots). May actually be lower B horizon material. Clasts > 1 cm excluded from sample.	20-30% very fine to medium sand. 70-80% rock fragments up to 20x10x8 cm but most smaller than 5 cm (i.e. clasts from >2 mm and <5 cm dominant). Clast supported. Appears to be slightly modified scree. Entire profile below ash layer assigned to C horizon (i.e. no B horizon). Sample hand screened but some larger clasts included in sample (~60% sand and 40% larger clasts in sample).
DA2004B	**DA2005B**	**na**
20-25	20-25	na
Upper B horizon, medium reddish brown, silt to fine sand with < 5% larger clasts. Up to 1% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium brown, mainly very fine to fine sand with minor silt and larger clasts (> 2 mm). <1% organics (fine roots). Clasts >1 cm across excluded from sample.	na

DA2007	**DA2008**	**DA2009**
397268	397462	397563
6887553	6887299	6887264
1286	1253	1250
Wind Zone area	Wind Zone area	Wind Zone area
2017_08_20	2017_08_21	2017_08_21
moderate to 160°	moderate to 015°	moderate to 020°
buck brush, other shrubs (willows?), cranberries, lichen, scattered spruce on hillside	stunted buck brush, Labrador tea, lichen, moss	stunted buck brush, Labrador tea, lichen, moss, few "willows"
75	70	75
0-5 cm: Ah 5-15 cm: Ash. 15-40 cm: B. Medium reddish brown silt to fine sand with 5-10% larger clasts. Roots present. No colour variation throughout B horizon. 40-75 cm: C. Weakly orange brown, silt to fine sand (mainly). 5 to 10% larger clasts (gravel +), angular to subangular and mainly <15 cm across (one boulder 30x20x20 cm).	0-9.5 cm: Ah. 9.5-10 cm: Ash (locally absent). 10-41 cm: B. Medium reddish brown (base placed at lower limit of significant root abundance). 41-70 cm: C. Permafrost at 70 cm.	0-15 cm: Ah. 15-30 cm: Ash. Light greyish brown, very fine to fine sand (no silt), "salt and pepper" colour with "salt" >> "pepper". 30-45 cm: B. Base placed at base of the common occurrence of roots. 45-70: C.
Quartzose, weakly foliated (Mississippian ?).	Most larger clasts are quartzose of which some contain biotite, possibly Mississippian.	Mainly quartzose Mississippian?
DA2007C	**DA2008C**	**DA2009C**
70-75	65-70	70-75
Medium (faintly orangey) brown, silt to fine sand. 5 to 10% larger clasts, angular to subangular and mainly <15 cm across. One boulder 30x20x20 cm. Sample excludes material >1 cm across.	Medium brown to medium orange brown. Matrix supported. Matrix consists of silt to medium grained sand. 20 to 40% larger clasts up to 20x12x10 cm (most < 5 cm), angular to subangular. Clasts >1 cm across excluded from sample.	Medium orange brown, matrix supported. Matrix is silt to very fine grained sand. 15-30% larger clasts, angular to subangular, up to 10x5x5 cm (most < 3 cm across). Clasts >1 cm across excluded from sample.
DA2007B	**DA2008B**	**DA2009B**
15-20	10 to 15	30-35
Medium reddish brown silt to fine sand with 5-10% larger clasts (material > 1 cm excluded form sample), abundant roots (most very fine but some up to 5 mm diameter). Clasts >1 cm across excluded from sample.	Weakly reddish brown, <1% organics (fine roots), silt to medium grained sand with 20-40% larger clasts commonly up to 5 cm across. Clasts >1 cm across excluded from sample.	Medium orange brown, silt to fine sand, similar to C horizon except contains up to 0.5% organics (fine roots). Clasts >1 cm across excluded from sample.
Base of reddish-brown soil corresponds closely to lower limit of very fine and larger roots. Interpret all reddish brown interval to be B horizon with no prominently oxidized (enriched) upper B horizon.	Between depths of 35 and 41 cm irregular, discontinuous, dark grey, silt-rich layers up to 3 cm thick occur.	

DA2010	**DA2011**	**DA2012**	**DA2013**
397633	397652	397658	397269
6887183	6887083	6886972	6886773
1245	1247	1245	1243
Wind Zone area	Wind Zone area	Wind Zone area	Wind Zone area
2017_08_21	2017_08_21	2017_08_21	2017_08_24
gentle to 095°	gentle to 080°		gentle to 215°
buck brush (stunted), Labrador tea, lichen, moss, ("willows)	buck brush, lichen, moss (cranberries)	buck brush, Labrador tea, lichen, moss, scattered spruce on hillside (nearest is 20 m away)	buck brush, (willows), Labrador tea, moss, lichen, scattered spruce (nearest is 3 m away)
70	75	70	68
0-3 cm: Ah. 3-8 cm: Ash. 8-30 cm: B. Similar to C but contains roots. 30-70: C.	0-5 cm: Ah 5-15 cm: Ash. Very fine to fine sand. 15-35 cm: B. Base placed at base of the common occurrence of roots. 35-75 cm: C.	0-25 cm: Ah (~ peat). 25-30 cm: B. 50-70 cm: C.	0-16 cm: Ah 16-25 cm: Ash. 25-45 cm: B. 45-68 cm: C.
DA2010C	**DA2011C**	**DA2012C**	**DA2013C**
65-70	70-75	65-70	63-68
Medium orange brown, silt to fine sand (matrix). 30-50% larger clasts up to 10x3x3 cm. Clasts >1 cm across excluded from sample.	Medium orange brown, silt to very fine sand (~ 50% silt; unusually silt-rich), 10-30% larger clasts up to 10x5x5 cm (most < 3 cm across). Clasts >1 cm across excluded from sample.	Medium orange-brown, silt to fine sand, 10-30% clasts, angular to subangular, up to 15x5x5 cm. Water saturated. Clasts >1 cm across excluded from sample.	Medium orange brown, matrix is silt to fine sand. 30-50% larger clasts, angular to subangular, up to 9x6x4 cm (most < 3 cm across). Water saturated. Clasts >1 cm across excluded from sample.
DA2010B	**DA2011B**	**DA2012B**	**DA2013B**
8 to 13	15-20	25-30	
medium orange brown, silt to fine sand (matrix). 20-40% larger clasts mainly <2 cm across Trace to 0.5% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium orange brown, mainly silt to very fine sand. 10-30% larger clasts (mainly < 3 cm). Trace to 0.5% organics (fine roots). Similar to C horizon except for roots. Clasts >1 cm across excluded from sample.	Medium orange brown, mainly silt to fine sand. 10-30% larger clasts mainly < 3 cm across. Trace to 0.5% fine roots. Water saturated. B horizon similar to C horizon except for roots. Clasts >1 cm across excluded from sample.	Same as DA2013C except only 15-30% larger clasts (mainly < 3 cm) and trace to 1% organics (fine roots). Clasts >1 cm across excluded from sample.
			Proportion of larger clasts (gravel +) increases downwards.

DA2014	**DA2015**	**DA2016**
397261	397300	397312
6886657	6886563	6886441
1227	1219	1205
Wind Zone area	Wind Zone area	Wind Zone area
2017_08_24	2017_08_24	2017_08_24
gentle to moderate to 225	gentle to 225°	gentle to 230°
buck brush, (willows), lichen, moss, scattered spruce (nearest 3 m away)	buck brush, (willows), Labrador tea, lichen, moss, (cranberries), scattered spruce (nearest is 3 m away)	buck brush, lichen, (cranberries), (Labrador tea), scattered spruce (nearest is 2 m away)
75	75	75
0-10 cm: Ah 10-15 cm: Ash. Silt to very fine sand with 5-15% mafic minerals. 15-18 cm: Discontinuous, dark brown-grey silty clay (appears to be devoid of larger clasts). 18-30 cm: B. 30-75: C.	0-3 cm: Ah. Dark brown to black (near base). 3-8 cm: Ash. 8-20 cm: Ae. Weakly developed, light to medium brown (not as dark or as orangey as below). 20-35: B. 35-75 cm: C.	0-7 cm: Ah. 7-17 cm: Ash. 17-19 cm: Dark grey silty clay (discontinuous). 19-35 cm: B. 35-75 cm: C.
	Mainly biotite rich and foliated with very quartzose material less common. Mississippian (?).	
DA2014C	**DA2015C**	**DA2016C**
70-75	70-75	70-75
Medium brown (weakly orangey), silt to medium sand matrix (only minor silt). 20-40% larger clasts, angular to subangular, up to 12x8x5 cm (most < 2 cm across). Water saturated. Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to fine sand. 30-40% larger clasts, angular to subanuular, up to 22x10x6 cm (most < 10 cm). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to fine sand. 30-40% larger clasts, angular to subangular, up to 25x10x8 cm (most < 10 cm across). Clasts >1 cm across excluded from sample.
DA2014B	**DA2015B**	**DA2016B**
	20-25	20-35
Medium (orangey) brown, silt of fine sand matrix. 15-30% larger clasts, angular to subangular, mainly < 2 cm across. Trace to 1% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium (orange) brown, silt to fine sand. 15-30% larger clasts, angular to subangular, most < 3 cm across. Up to 1% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to fine sand. 15-30% larger clasts, mainly < 5 cm across. Up to 1% organics (fine roots). Clasts >1 cm across excluded from sample.
		Abundance of larger clasts (gravel and larger) increases downward.

DA2017	**DA2018**	**DA2019**
397347	393350	393398
6886338	6884092	6884101
1200	1127	1125
Wind Zone area	Montgomery Creek area	Montgomery Creek area
2017_08_24	2017_08_26	2017_08_26
gentle to 225°	gentle to 150°	gentle to 120°
buck brush, (willows), Labrador tea, lichen, moss, spruce moderately spaced (nearest is 4 m away)	buck brush, lichen, (cranberries), open spruce forest (nearest is 8 m away)	buck brush, lichen, Labrador tea, (moss), open spruce forest (nearest is 3 m away)
74	90	75
0-5 cm: Ah. 5-9 cm: Ash. Very fine to fine sand, 5-15% mafic mineral (possibly hornblende). 9-34 cm: B. 34-74 cm: C.	0-2 cm: Ah. 2-6 cm: Upper B. 6-12 cm: Ash. Very fine to fine sand, mainly white (feldspar > quartz), 5 to 15% black mineral (possibly hornblende). 12-16 cm: Upper B. 16-35 cm: B. Mainly silt to very fine sand, minor root component. 35-90 cm: C.	0-3 cm: Ah. 3-7 cm: Ash. 7-10 cm: Upper B. 10-30 cm: B. 30-75 cm: C.
Mainly foliated, biotite-rich and quartzose. Mississippian (?).		Mainly foliated quartzose and bi-rich rocks (Mississippian ?) + some feldspar porphyritic granitoid (not foliated).
DA2017C	**DA2018C**	**DA2019C**
69-74	85-90	70-75
Medium (orangey) brown, silt to fine sand. 20-40% larger clasts, angular to subangular, up to 20x8x4 cm (most < 10 cm). Clasts >1 cm across excluded from sample. Clasts >1 cm across excluded from sample.	Medium brown, very fine to fine sand (essentially no silt). 1 to 3% larger clasts, subangular to angular, up to 9x5x3 cm (most < 5 cm). Clasts >1 cm across excluded from sample.	Medium (very weakly orangey) brown, very fine to medium sand. 30-50% larger clasts, angular to subangular, up to 15x10x5 cm (mainly < 10 cm across). Locally clast supported. Clasts >1 cm across excluded from sample.
DA2017B	**DA2018B**	**DA2019B**
10 to 15	12 to 16	7 to 10
Medium orangey brown, silt to fine sand. 15-30% larger clasts, most <3 cm across. Up to 1% organics (fine roots). Clasts >1 cm across excluded from sample.	Upper B horizon, medium to dark reddish-brown, silt to very fine sand. 1 to 2% larger clasts, mainly < 3 cm across. About 1% organics (numerous fine roots). Clasts >1 cm across excluded from sample.	Upper B horizon. Medium to dark (reddish) brown, silt to very fine sand. 10-30% larger clasts, angular to subangular, most < 10 cm across. About 1% organics (numerous fine roots). Clasts >1 cm across excluded from sample.
Abundance of larger clasts (gravel and larger) increases downward.		gradational from silt to very sand downward to very fine to medium sand.

DA2020	**DA2021**	**DA2022**	**DA2022.5**
393447	393351	393399	393464
6884102	6884203	6884208	6884214
1124	1141	1137	1135
Montgomery Creek area	Montgomery Creek area	Montgomery Creek area	Montgomery Creek area
2017_08_26	2017_08_26	2017_08_26	2017_08_26
very gentle to 170°	gentle to 170°	gentle to 160°	very gentle
buck brush, Labrador tea, lichen, moss, downslope from spruce forest (nearest is 4 m away)	buck brush, lichen, (moss), open spruce forest (nearest is 4 m away)	(buck brush), Labrador tea, moss, lichen, open spruce forest (nearest is 3 m away)	(buck brush), (willow), Labrador tea, moss, lichen, open spruce forest (boggy)
75	72	58	55
0-16 cm: Ah. Dark brown. 16-34 cm: Organic-rich, black silty clay (contains some large clasts - downslope creep ?). 35-50 cm: B. 50-75 cm: C.	0-4 cm: Ah 4-30 cm: B. 30-72 cm: C.	0-20 cm: Ah (dark brown to black). 20-23 cm: Ash. 23-35 cm: B. 35-58 cm: C. Permafrost at 58 cm.	0-25 cm: Ah. 25-55 cm: Mineral soil (B +/- C horizon) mixed with organic material)(Ah) and ash. 55 cm: Hard layer (probably at or near permafrost).
		Mainly foliated, quartzose rock (Mississippian ?) + lesser amounts of porphyritic granitioid.	na
DA2020C	**DA2021C**	**DA2022C**	**na**
70-75	67-72	53-58	na
Medium brown, silt to medium sand. 30-50% larger clasts, angular to subangular, up to 30x15x10 cm (most < 10 cm across). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to fine sand. 5-15% larger clasts, subangular, up to 10x5x3 cm (most < 3 cm). Clasts >1 cm across excluded from sample.	Medium brown, silt to fine sand. 5-15% larger clasts, subangular, up to 12x8x5 cm (moss < 5 cm across). Clasts >1 cm across excluded from sample.	na
DA2020B	**DA2021B**	**DA2022B**	**na**
35-40	4 to 9	23-28	na
Medium (orangey) brown, silt to fine sand. 10-1=30% larger clasts, angular to subangular, most < 10 cm across. Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to fine sand. 5-15% larger clasts, subangular, most < 3 cm across. 0.5-1% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium brown, silt to fine sand. 5-15% larger clasts, subangular, mainly < 5 cm across. About 1% organics (fine roots). Clasts >1 cm across excluded from sample.	na
Open area near creek, just west of old disturbance by bulldozer (?).	Ash locally present (one side of pit) below Ah.	Locally Ah is mixed into B horizon material (avoided in sample).	No samples. No good sample sites apparent to east of this site.

DA2023	**DA2024**	**DA2025**
393349	393409	393453
6884305	6884305	6884303
1147	1147	1148
Montgomery Creek area	Montgomery Creek area	Montgomery Creek area
2017_08_27	2017_08_27	2017_08_27
gentle to 150°	gentle to 180°	gentle to 165°
(buck brush), (willow), Labrador tea, lichen, grass, moss, scattered spruce (nearest is 4 m away)	(buck brush), (willows), Labrador tea, lichen, (moss), (grass), "mini juniper" (blue berries, 3-6 cm tall), scattered spruce (nearest is 4 m away).	buck brush, (willow), Labrador tea, lichen, moss, ("mini-juniper"), (grass), scattered spruce
70	75	70
0-20 cm: Ah. Dark brown changing downward to black. 20-35 cm: Ash. White to very light grey, 90-95% light coloured minerals (white feldspar > quartz), 5-10% dark mineral (possibly hornblende), very fine to fine sand, no silt. 35-38 cm: Ah. Black, very decomposed organics. 38-50 cm: B. 50-70 cm: C.	0-8 cm: Ah. Dark brown changing downward to black. 8-26 cm: Ash. 26-35 cm: B. 35-75 cm: C.	0-10 cm: Ah. Black. 10-13 cm: Ash. 13-30 cm: Mixed. Discontinuous layers of B, Ah (black), and minor ash. 30-40 cm: B. 40-70 cm: C.
Approximately equal mix of foliated bi-rich and quartzose rock (Mississippian ?) and feldspar porphyritic granitoid.	Mainly foliated quartzose rock with some biotite-rich rock (Mississippian ?).	
DA2023C	**DA2024C**	**DA2025C**
65-70	70-75	65-70
Medium brown, silt to fine sand. 40-60% larger clasts, angular to subangular, up to 12x7x4 cm (most < 5 cm across). Water saturated. Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to fine sand. 10-30% larger clasts, subangular to angular, most < 5 cm across. Water saturated. Clasts >1 cm across excluded from sample.	Medium brown, silt to fine sand. 5-15% larger clasts, subangular to angular, up to 12x10x4 cm (most < 3 cm across). Water saturated. Clasts >1 cm across excluded from sample.
DA2023B	**DA2024B**	**DA2025B**
38-43	26-31	30-35
Medium brown, silt to fine sand, 10-30% larger clasts, angular to subangular, mainly < 5 cm across. About 1% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to fine sand. 20-40% larger clasts, subangular to angular, up to 15x10x4 cm (most < 10 cm). Up to 1% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium brown, silt to fine sand. 5-15% larger clasts, subangular to angular, mainly < 3 cm across. About 1% organics (fine roots). Clasts >1 cm across excluded from sample.
Stoniness increases downward.	Most larger clasts (gravel +)above 35 cm.	

DA2026	**DA2027**	**DA2028**	**DA2029**
393499	396917	396815	396707
6884302	6885509	6885536	6885549
1148	1242	1252	1248
Montgomery Creek area	Wind Zone area	Wind Zone area	Wind Zone area
2017_08_27	2017_09_01	2017_09_01	2017_09_01
gentle to 165°	gentle-moderate to 040°	moderate to 015°	moderate-steep to 005°
buck brush, (willows), Labrador tea, lichen, moss, mini-juniper, (grass), scattered spruce	buck brush, ((willow)), moss, lichen, open slope with very scattered spruce (nearest is ~15 m away)	buck brush, ((willow)), lichen, moss	buck brush (willow), lichen, moss, open slope
70	40	50	70
0-18 cm: Ah. Dark brown changing downward to black. 18-26 cm: Ash. 26-40 cm: B. 40-70 cm: C.	0-18 cm: Ah. Medium brown changing downward to dark brown. 18-24 cm: Ash. 24-30 cm: B. 30-40 cm C. Permafrost at 40 cm.	0-24 cm: Ah. Medium brown changing downward to dark brown. 24-25 cm: Ah. Black. 25-26 cm: Ash (varies form 0 to 3 cm thick). 26-35 cm: B. 35-50 cm: C. Permafrost at 50 cm.	0-12 cm: Ah. 12-35 cm: B. 35-70 cm: C.
	Mainly foliated, quartzose rock (Mississippian?). About 10% display clay alteration, moderate pervasive to spotty, light brown (limonitic) Fe-oxide and weak spotty Mn-oxide.	Foliated quartzose rocks, commonly biotite-rich (Mississippian?).	Well foliated, quartzose, mainly biotite-rich rock (Mississippian?).
DA2026C	**DA2027C**	**DA2028C**	**DA2029C**
65-70	35-40	45-50	65-70
Medium brown, silt to fine sand. 2-5% larger clasts, subangular, up to 10x6x5 cm (most < 3 cm across). Water saturated. Clasts >1 cm across excluded from sample.	Medium brown. Scree with silt to fine sand matrix. 60-90% larger clasts, angular to subangular, up to 10x10x8 cm (most < 7 cm across). Clasts larger than 2 cm excluded from sample.	Medium brown, silt to very fine sand. 10-30% larger clasts, angular to subangular, up to 12x9x7 cm (most < 8 cm across). Clasts >1 cm across excluded from sample.	Medium (orangey) brown. Silt to very fine sand matrix. 60-90% lager clasts, angular to subangular, up to 20x8x3 cm (most < 10 cm). Clasts tend to be platy. Clasts larger than 2 cm excluded form sample.
DA2026B	**DA2027B**	**DA2028B**	**DA2029B**
	24-29	26-31	Dec-17
Medium brown, silt to fine sand. 3-5% larger clasts, subangular, mainly < 3 cm across. About 1% organics 9fine roots). Clasts >1 cm across excluded from sample.	Medium brown, silt to fine sand. 20-50% larger clasts, angular to subangular. 1-2% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium brown, silt to very fine sand (quite silty = sandy silt). 5-15% larger clasts, angular to subangular, mainly < 5 cm across. 1-2% organics (fine roots). Clasts >1 cm across excluded from sample.	Silt to very fine sand with muscovite common. 30-50% larger clasts, angular to subangular, mainly < 5 cm across. 1-2% organics (fine roots). Clasts >1 cm across excluded from sample.
Some mixing of Ah into B horizon (avoided in sample).		Stoniness increases downwards.	About 5 m below break in slope with gentler slope above.

DA2030	**DA2031**	**DA2032**
396584	396509	393346
6885554	6885636	6884410
1267	1279	1164
Wind Zone area	Wind Zone area	Montgomery Creek area
2017_09_01	2017_09_01	2017_09_03
moderate-steep to 350°	gentle-moderate to 040°	gentle to 155°
buck brush, (willow), lichen, moss	buck brush, (willow), Labrador tea, lichen, (moss)	(buck brush), ((willow)), lichen, mini-juniper, spruce forest (nearest is ~6 m away)
60	65	85
0-10 cm: Ah. 10-12 cm: Ash. Locally absent. 12-30 cm: B. 30-60 cm: C.	0-7 cm: Ah. 7-15 cm: Ash. 15-35 cm: B. 35-65 cm: C.	0-5 cm: Ah. Medium to dark brown. 5-27 cm: Ash. Very fine to fine grained, anhedral, white overall, 1-5% quartz, 3-7% mafic minerals (mainly hornblende but may include some biotite), when smeared/powdered the feldspar breaks down to silt/clay (clay-altered). 27-28 cm: Ash. Orange-brown, pervasive Fe-oxide alteration. 28-33 cm: Black, organic-rich, sandy (very fine grained) silt. 50-75% organic material (possibly burned layer?). Varies form 2 to 6 cm thick. 33-48 cm: B. 48-85 cm: C.
Well foliated quartzose rock, mainly biotite-rich but some muscovite-rich (Mississippian?).	Foliated quartzose rock, some biotite-bearing, some muscovite-bearing (Mississippian?).	Mainly foliated, quartzose rock (Mississippian?). ~5% weakly foliated feldspar porphyry with light pink, anhedral feldspar phenocrysts (somewhat augen-like) up to 1 cm across in medium green, aphanitic matrix (does not appear "fresh"). ~2% very fine to fine grained rock with strong, pervasive orange-brown (limonitic) Fe-oxide (cannot determine rock type). ~2% quartz gabbro/norite or amphibolite.
DA2030C	**DA2031C**	**DA2032C**
55-60	60-65	80-85
Scree. Medium brown, silt to fine sand matrix with muscovite "flakes" common. 60-90% larger clasts, angular to subangular, up to 15x10x3 cm (most < 10 cm across). Clasts larger that 2 cm excluded from sample.	Scree. Medium (orangey) brown, silt to fine sand matrix. 40-80% larger clasts, angular to subangular, up to 10x6x4 cm (most < 5 cm). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to very fine sand. 20-60% larger clasts, subangular to angular, up to 20x8x7 cm (most < 10 cm). Clasts >1 cm across excluded from sample.
DA2030B	**DA2031B**	**DA2032B**
12 to 17		33-38
Scree. Medium brown, silt to very fine sand matrix. 50-80% larger clasts, subangular to angular, mainly < 10 cm across. 1-2% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to very fine sand (very silty = sandy silt). 2-10% larger clasts, angular to subangular, mainly < 5 cm across. 1-2% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to very fine sand. 5-15% larger clasts, angular to subangular, mainly < 10 cm across. 0.5-1% organics (fine roots). Clasts >1 cm across excluded from sample.
		Stoniness increases downwards.

DA2033	**DA2034**	**DA2035**
393402	393454	393492
6884407	6884401	6884412
1160	1155	1158
Montgomery Creek area	Montgomery Creek area	Montgomery Creek area
2017_09_03	2017_09_03	2017_09_03
gentle to 180°	gentle to 155°	gentle to 170°
(buck brush), (willow), (Labrador tea), lichen, mini-juniper, (cranberries)	(willow), (buck brush), (Labrador tea), moss, lichen, mini-juniper, spruce forest (nearest is 2 m away)	(willow), (buck brush), moss, lichen (cranberries), (mini-juniper), spruce forest (nearest is 4 m away)
68	65	70
0-10 cm: Ah. Dark brown. 10-26 cm: Ash. 26-27 cm: B. Sandy silt (silt>sand). 27-36: B. Silt to very fine sand (sand>silt), stony. 36-68 cm: C.	0-20 cm: Ah. Dark brown changing downward to black. 20-28 cm: Ash. 28-45 cm: Mixed B horizon material (silt to very fine sand + larger clasts) and black Ah horizon material. 45-65: C.	0-9 cm: Ah. Dark brown changing downward to black. 9-27 cm: Ash. 27-50 cm: B. 50-70 cm: C.
Vast majority are foliated, quartzose rocks (Mississippian?). About 5% are feldspar-rich pegmatite containing light pink, subhedral to euhedral, feldspar up to 2 cm across.	Mainly foliated, quartzose rocks (Mississippian?), many with weak orangey-brown Fe-oxide alteration.	
DA2033C	**DA2034C**	**DA2035C**
63-68	60-65	65-70
Medium (orangey) brown, silt to very fine sand matrix. 55-90% larger clasts, angular to subangular, up to 15x8x6 cm (most < 10 cm across). Clasts >1 cm across excluded from sample.	Medium brown, silt to very fine sand. 15-30% larger clasts, angular to subangular, Water saturated (very cold, near permafrost?). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to very fine sand. 5-15% larger clasts, angular to subangular, up to 7x5x3 cm (most < 5 cm across). Water saturated (very cold, near permafrost?). Clasts >1 cm across excluded from sample.
DA2033B	**na**	**DA2035B**
	na	27-32
Silt to very fine sand matrix (sand > silt). 40-60% clasts, angular to subangular. Approximately 1 cm thick sandy (very fine grained) silt unit lies just below ash (included in sample). 0.5 to 1% organics (fine roots). Clasts >1 cm across excluded from sample.	na	Medium (orangey) brown, silt to very fine sand. 5-15% larger clasts, angular to subangular, mainly < 3 cm across. About 1% organics (fine roots). Clasts >1 cm across excluded from sample.
	Ground is slightly spongy. Digging of pit stopped by water flooding and caving.	Bottom of pit floods, pit depth limited by flooding/caving.

DA2036	**DA2037**
393554	393557
6884423	6884521
1157	1170
Montgomery Creek area	Montgomery Creek area
2017_09_03	2017_09_04
very gentle to 160°	gentle to 160°
(buck brush), (willow), (Labrador tea), moss, lichen, grass, open spruce forest (some stunted, some standing dead)	(willow), Labrador tea, lichen, (moss), mini-juniper, open spruce forest (nearest is 3 m away)
70	70
0-15 cm: Ah. Brown changing downward to black. 15-40 cm: Mixed (chaotic) unit of ash, B horizon material (silt to fine sand with larger clasts), black organic (Ah) material, and some fine (small diameter) roots. 40-70 cm: Mixed (chaotic) unit of silt to fine sand with larger clasts and black organic (Ah) material.	0-13 cm: Ah. Medium brown changing downward to black. 13-47 cm: Mainly organic (black Ah) with up to 25% silt to fine sand (probably includes both Ash and B horizon material). 47-70: C.
Mainly foliated, quartzose rocks (Mississippian?).	Nearly all quartz-feldspar porphyry (QFP) with minor quartz vein material. QFP: 3-5% clear to light grey, glassy, round quartz "eyes" up to 3 mm across (most about 2 mm across), 1-2% white feldspar pseudomorphs up to 2 mm across (clay altered). Groundmass is felsic, light grey. Not foliated. Weak to moderate spotty to disseminated limonitic Fe-oxide.
DA2036C	**DA2037C**
65-70	65-70
Medium (orangey) brown, silt to fine sand. 5-15% larger clasts, angular to subangular, up to 10x8x4 cm (mainly < 5 cm across). Water saturated, very cold (near permafrost?). Organic material excluded from sample. Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to fine sand matrix. 50-90% larger clasts, angular to subangular, up to 16x8x3 cm (most < 10 cm across). Water saturated. Clasts >1 cm across excluded from sample.
na	**na**
na	na
na	na
Pit digging stopped by flooding/caving.	Pit floods at bottom.

DA2038	**DA2039**	**DA2040**
393599	393646	393714
6884511	6884516	6884510
1170	1167	1165
Montgomery Creek area	Montgomery Creek area	Montgomery Creek area
2017_09_04	2017_09_04	2017_09_04
gentle to 175°	gentle to 160°	gentle to 180°
willow, Labrador tea, mini-juniper, lichen, moss, (grass), open spruce forest (nearest is ~5 m away)	open spruce forest (nearest ~ 4 m away)	willow, Labrador tea, lichen, mini-juniper, moss, open spruce forest (nearest ~ 5 m away)
	75	90
0-11 cm: Ah. Medium brown changing downward to black. 11-14: Ash. 14-31 cm: B horizon material (silt to very coarse sand with larger clasts) with some lenses of Ah material in upper part (disturbed profile). 31-60: C.	0-16 cm: Ah. Medium brown changing downward to black. 16-20 cm: Ash. 20-30 cm: Black, organic-rich material with about 25% silt and sand and some roots. 30-75 cm: C.	0-13 cm: Ah. Medium brown changing downward to black. 13-17 cm: Ash. Varies form 2-6 cm thick. 17-80 cm: Mixed mineral soil and black organic (Ah) intervals (about 50% mineral soil and 50% organics). 80-90 cm: C.
~30% quartzose, foliated rock (Mississippian?). 10-20% coarse feldspar porphyry with white, subhedral to euhedral feldspar phenocrysts up to 1 cm long in white, felsic/siliceous groundmass (not foliated). ~50% aphanitic to fine grained felsic rocks in which the feldspar is white, anhedral and partly to totally altered to clay, these clasts display weak to strong fracture-controlled to pervasive , orangey brown limonitic Fe-oxide.	Mainly foliated, quartzose rocks (Mississippian?). ~20% non-foliated, felsic, aphanitic to fine grained rocks with clay altered white feldspar pseudomorphs and weak fracture-controlled to spotty orangey brown limonitic Fe-oxide. Very minor component of vein quartz material.	Nearly all quartzose, foliated rocks (Mississippian?). About 5% coarse feldspar porphyry containing 25-50% white, subhedral to euhedral feldspar phenocrysts up to 1 cm across in a felsic groundmass, not foliated; weak pervasive, orangey-brown, limonitic Fe-oxide.
DA2038C	**DA2039C**	**DA2040C**
55-60	70-75	85-90
Medium (orangey) brown, silt to very coarse sand matrix. 70-90% larger clasts, angular to subangular, up to 12x6x4 cm (most < 10 cm across). Water saturated. Clasts >1 cm across excluded from sample.	Medium orangey brown, silt to medium sand matrix. 45-80% larger clasts, angular to subangular, up to 8x7x3 cm (most < 5 cm across).	Medium (orangey) brown, silt to fine sand. 20-60% larger clasts, subangular to angular, up to 12x10x2 cm (most < 5 cm across). Water saturated. Clasts >1 cm across excluded from sample.
na	**na**	**na**
na	na	na
na	na	na
Pit floods at bottom.		Bottom of pit floods.

DA2041	**DA2042**	**DA2043**
393503	393507	393547
6884493	6884602	6884607
1175	1191	1189
Montgomery Creek area	Montgomery Creek area	Montgomery Creek area
2017_09_06	2017_09_06	2017_09_06
gentle to 140°	gentle to 170°	gentle to 155°
willow, moss, (lichen), mini-juniper, spruce forest (nearest ~6 m away)	buck brush, willow, moss, (lichen), mini-juniper, (grass), moderate density spruce forest (nearest ~ 8 m away)	willow, (buck brush), Labrador tea, lichen, moss, mini-juniper, spruce forest (moderate density, nearest is ~5 m away)
60	50	85
0-30 cm: Ah. Medium brown changing downward to black, includes a minor component of ash locally. 30-60 cm: Mixed (chaotic) mineral soil (~50%) and black, organic-rich (Ah) material (~50%). Permafrost at 60 cm.	0-15 cm: Ah. Dark brown changing downward to black. 15-30 cm: Ash. 30-50 cm: Black organic-rich (Ah) material with minor (<5%) ash in irregular lenses. Permafrost at 50 cm.	0-15 cm: Ah. Medium brown changing downward to black. 15-29 cm: Ash. 29-32 cm: Black organic material (Ah). 32-65 cm: B. B/C boundary based on compositional change. 65-85 C. Permafrost at 85 cm.
Mixture of 5 lithologies: (i) Pegmatitic feldspar porphyry with 25-50% euhedral to subhedral, white feldspar phenocrysts up to 3 cm across in a felsic groundmass. (ii) Coarse grained, subequigranular biotite granodiorite. (iii) Foliated quartzose rock (Mississippian?). (iv) Non-foliated, medium greenish brown, aphanitic rock (andesite?). (v) "Rotten" orangey brown, aphanitic, non-foliated clasts exhibiting strong, pervasive, Fe-oxide alteration.		Mainly quartzose foliated rocks with rare hematite alteration (Mississippian?). Minor amounts of pegmatitic feldspar porphyry.
DA2041C	**na**	**DA2043C**
50-60	na	80-85
Medium (orangey) brown, silt to medium sand. 25-55% larger clasts, angular to subangular, up to 18x7x5 cm (most <10 cm across). Water saturated. Sample contains 1-3% black, organic-rich material (majority of organic material excluded from sample). Clasts >1 cm across excluded from sample.	na	Medium orangey brown, silt to medium sand. 20-50% larger clasts, angular to subangular, up to 10x4x3 cm (most < 5 cm across). Water saturated. Clasts >1 cm across excluded from sample.
na	**na**	**DA2043B**
na	na	32-37
na	na	Medium brown, silt to fine sand. 5-15% larger clasts, angular to subangular, trace to 0.5% organics (fine roots down to ~45 cm). Clasts >1 cm across excluded from sample.
Pit floods.	No soil samples collected.	Bottom of pit floods.

DA2044	**DA2045**	**DA2046**	**DA3001**
393600	393657	393710	397651
6884601	6884598	6884613	6890955
1189	1183	1180	1343
Montgomery Creek area	Montgomery Creek area	Montgomery Creek area	Lee Zone
2017_09_06	2017_09_06	2017_09_06	2017_08_28
gentle to 155°	gentle to 160°	gentle to 165°	gentle to 130°
moderate density spruce forest (nearest is ~ 4 m away)	willow, Labrador tea, mini-juniper, moss, moderate density spruce forest (nearest is ~6 m away).	willow, Labrador tea, (mini-juniper), lichen, moss, spruce forest, moderate spacing (nearest ~ 4 m away)	buck brush, lichen, (mini-juniper), (moss), (cranberries)
82	85	75	60
0-18 cm: Ah. Medium brown changing downward to black. 18-26 cm: Ash. 26-36 cm: Black organic material (Ah). 36-43 cm: B: Mineral soil, medium (orangey) brown, silt to fine sand with larger clasts. 1-2% organics (fine roots). 43-47 cm: Black organic material (Ah). Deepest interval containing roots. 47-82 cm: C.	0-16 cm: Ah. Medium brown changing downward to black. 16-21 cm: Ash. 21-49 cm: Black organic material (Ah). 49-85 cm: C.	0-20 cm: Ah. Medium brown changing downward to black. 20-28 cm: Ash. 28-32 cm: Black organic material (Ah). 32-39 cm: B. Mineral soil. Abundant fine roots. 39-45 cm: Dark grey to black, organic-rich material (Ah) with ~25% mineral soil (B). 45-75 cm: C. Permafrost at 75 cm.	0-5 cm: Ah. Black. 5-11 cm: Ash. Fine sand, 5-10% quartz, 5-10% mafic mineral (hornblende?), 80-90% white feldspar. 11-23 cm: B. 23-60 cm: C. Sharp upper contact.
Mainly quartzose, foliated rocks (Mississippian?). Some pegmatitic feldspar porphyry. Rare aphanitic to fine grained, felsic rock with feldspar altered to clay and moderate pervasive Fe-oxide alteration and weak spotty Mn-oxide alteration.	~95% quartzose, foliated rock (Mississippian?). ~5% pegmatitic feldspar porphyry.	quartzose, foliated rocks (Mississippian?).	Foliated, quartzose rock (Mississippian?).
DA2044C	**DA2045C**	**DA2046C**	**DA3001C**
77-82	80-85	70-75	55-60
Medium (orangey) brown, silt to medium sand. 25-50% larger clasts, angular to subangular, up to 15x9x5 cm (most < 8 cm across). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to fine sand matrix. 40-80% larger clasts, angular to subangular, up to 12x9x5 cm (most < 8 cm across). Water saturated. Clasts >1 cm across excluded from sample.	Medium orangey brown, silt to fine sand. 30-60% larger clasts, angular to subangular, up to 13x8x3 cm (most < 5 cm across). 0.5 to 1% organics (fine roots). Water saturated. Clasts >1 cm across excluded from sample.	Medium brown. 15-30% silt to very coarse sand. 70-85% larger clasts, angular to subangular, up to 20x15x8 cm (most < 15 cm across). Majority of material falls into 2 mm to 2 cm size fraction. Clasts >1 cm across excluded from sample.
na	**na**	**DA2046B**	**DA3001B**
na	na	33-38	Nov-16
na	na	Medium brown, silt to fine sand. 10-30% larger clasts, angular to subangular, mainly < 5 cm across. 1-3% organics (fine roots and minor amount of Ah material). Clasts >1 cm across excluded from sample.	Medium-dark brown, silt to very fine sand (mainly silt). 1-5% larger clasts, mainly < 2 cm across. 1-2% organics (fine roots). Clasts >1 cm across excluded from sample.
		Pit floods.	

DA3002	**DA3003**	**DA3004**	**DA3005**
397673	397700	397725	397747
6890947	6890949	6890952	6890925
1337	1337	1334	1329
Lee Zone	Lee Zone	Lee Zone	Lee Zone
2017_08_28	2017_08_28	2017_08_28	2017_08_28
gentle to 145°	gentle to 160°	gentle to 145°	gentle to 130°
buck brush, (willow), lichen, mini-juniper, (moss), (cranberries)	buck brush, (willow), lichen, moss, mini-juniper, (cranberries)	buck brush, (willows), lichen, cranberries	buck brush, (willow), lichen, (moss), (mini-juniper), (cranberries)
50	55	60	55
0-2 cm: Ah. 2-5 cm: Ash. 5-17 cm: B. 17-50 cm: C. Sharp upper contact.	0-5 cm: Ah. Dark Brown. 2-13 cm: Ash. 13-20 cm: B. Sharp upper and lower contacts. 20-55 cm: C. Sharp upper contact.	0-6 cm: Ah. Dark brown. 6-15 cm: Ash. 15-30 cm: B. 30-60 cm: C. Gradational upper contact.	0-3 cm: Ah. Dark Brown. 3-8 cm: Ash. 8-30 cm: B. 30-55 cm: C.
Foliated quartzose rock more abundant than foliated biotite-rich rock (Mississippian?).	90-95% quartzose, foliated rock, 5-10% biotite-rich, foliated rock (Mississippian?)	~90% quartzose, foliated rock, ~10% biotite-rich, foliated rock (Mississippian?)	90-95% quartzose, foliated rock, 5-10% biotite-rich, foliated rock (Mississippian?)
DA3002C	**DA3003C**	**DA3004C**	**DA3005C**
45-50	50-55	55-60	50-55
Medium (orangey) brown. 5-10% silt to very coarse sand. 90-95% larger clasts, angular to subangular, up to 9x9x3 cm (most < 5 cm across). Clast supported.	Medium (weakly orangey) brown. 15-30% silt to fine sand. 70-85% larger clasts, angular to subangular, up to 25x25x10 cm (most < 20 cm across). Clast supported. Clasts >1 cm across excluded from sample.	Medium (orangey) brown. 20-50% silt to fine sand. 50-80% larger clasts up to 15x15x4 cm (most > 2 cm and < 10 cm across). Clasts >1 cm across excluded from sample.	Medium (orangey) brown. 20-50% silt to very fine sand. 50-80% larger clasts, angular to subangular, up to 10x5x4 cm (most >2 cm and < 5 cm across). Clasts >1 cm across excluded from sample.
DA3002B	**DA3003B**	**DA3004B**	**DA3005B**
05-Oct	13-18	06-Nov	Aug-13
Medium to dark brown, silt to very fine sand. 1-5% larger clasts, angular to subangular, up to 8 cm across (most < 2 cm). 1-2% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium brown, silt to very fine sand (mainly silt). 1-5% larger clasts, mainly < 5 cm across. 1-2% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to fine sand. <5% larger clasts, mainly < 3 cm across. About 1% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to very fine sand. 5-15% larger clasts, mainly < 5 cm across. About 1% organics (fine roots). Clasts >1 cm across excluded from sample.
		Abundance of large clasts increases downward.	

DA3006	**DA3007**	**DA3008**	**DA3009**
397775	397802	397827	397857
6890926	6890925	6890927	6890929
1326	1322	1317	1311
Lee Zone	Lee Zone	Lee Zone	Lee Zone
2017_08_28	2017_08_28	2017_08_30	2017_08_30
gentle to 145°	gentle to 125°	very gentle to 120°	gentle to 090°
buck brush, (willow), lichen, (moss), (cranberries)	buck brush, (willow), lichen, (mini-juniper), (moss), (cranberries), (Labrador tea)	buck brush, (willows), lichen, (moss), (cranberries)	buck brush, (willow), (Labrador tea), (mini-juniper), lichen, (moss)
65	65	70	70
0-5 cm: Ah. Very dark brown to black. 5-16 cm: Ash. 16-45 cm: B. 45-65 cm: C.	0-7 cm: Ah. Very dark brown. 7-17 cm: Ash. 17-35 cm: B. 35-65 cm: C.	0-8 cm: Ah. Dark brown changing downward to black. 8-10 cm: Ash. 10-40 cm: B. 40-70 cm: C.	0-3 cm: Ah. Dark brown. 3-11 cm: Ash. 11-30 cm: B. 30-70 cm: C.
quartzose, foliated rock (Mississippian?)	~90% quartzose, foliated rock, ~10% biotite-rich, foliated rock (Mississippian?)	Nearly all quartzose +/- biotite foliated rocks (Mississippian?) with minor bull quartz.	Mainly foliate quartzose +/- biotite rock (Mississippian) with minor bull quartz.
DA3006C	**DA3007C**	**DA3008C**	**DA3009C**
60-65	60-65	65-70	65-70
Medium (orangey) brown. 20-50% silt to very fine sand. 50-80% larger clasts, angular to subangular, up to 20x12x10 cm (most > 2 cm and < 15 cm across). Clasts >1 cm across excluded from sample.	Medium (orangey) brown. 40-65% silt to very fine sand. 35-60% larger clasts, angular to subangular, up to 20x12x5 cm (most >2 cm and < 15 cm across).	Medium orangey brown, silt to very fine sand. 30-60% larger clasts (mainly > 2 cm across), angular to subangular, up to 35x20x10 cm (exceptionally large, the second largest clast is 12x15x3 cm, most are < 10 cm). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to very fine sand. 30-70% larger clasts (mainly > 2 cm across), angular to subangular, up to 12x7x4 cm (mainly < 10 cm across). Clasts >1 cm across excluded from sample.
DA3006B	**DA3007B**	**DA3008B**	**DA3009B**
16-21	17-22	10 to 15	30-35
Medium orangey brown, silt to very fine sand. 10-20% larger clasts, mainly < 5 cm across. About 1% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium orangey brown, silt to very fine sand. 5-10% larger clasts, mainly < 3 cm across. 1-2% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to very fine sand. 5-15% larger clasts most < 5 cm. 1-2% organics (fine roots). Clasts >1 cm across excluded from sample.	Medium (orangey) brown, silt to very fine sand. 10-30% larger clasts, angular to subangular, mainly < 5 cm across. About 1% organics (fine roots). Clasts >1 cm across excluded from sample.

Appendix 3

Stream Sediment Sample Descriptions

Location Coordinates: UTM Zone 8V, NAD83

Sample	East	North	Elev. (m)	Date	Site Description	Stream Width (m)	Stream Depth (m)	Flow Rate	Flow Direction	Sample Composition (by volume)
DA5001	396869	6890472	1121	2017_09_09	Lee Creek.	2	0.25	moderate	340°	About 50% active stream sediment consisting of light grey silt to fine sand (mainly silt). About 50% moss mat.
DA5002	396944	6890369	1128	2017_09_09	Dry tributary on NE side of Lee Creek.	1	na	na	270°	Moss mat containing abundant light grey silt to fine sand.
DA5003	396801	6890217	1126	2017_09_09	Lee Creek.	1 to 2	0.2	moderate to fast	020°	~50% active stream sediment (light grey, silt to fine sand), ~50% moss mat containing abundant mineral sediment.
DA5004	396662	6890011	1141	2017_09_09	Tributary on west side of Lee Creek.	0.5	0.15	moderate	080°	~50% active stream sediment, medium (brownish) grey, silt to fine sand (silty). ~50% moss mat containing abundant mineral sediment.
DA5005	396633	6889807	1147	2017_09_09	Lee Creek.	2	0.1	moderate to fast	025°	~50% active stream sediment, medium (brownish) grey, silt to fine sand (silty). ~50% moss mat containing abundant mineral sediment.
DA5006	396810	6889829	1150	2017_09_09	Tributary on east side of Lee Creek.	1	0.2	moderate to fast	350°	~50% active stream sediment, silt to fine sand (silty), mainly medium (brownish) grey but some is white (ash?). ~50% moss mat containing abundant mineral sediment.
DA5007	397020	6890375	1135	2017_09_09	Tributary on NE side of Lee Creek. Upstream from sample DA5002 (same tributary).	0.5	0.1	moderate	265°	Moss mat containing abundant mineral sediment (medium brownish grey, silt to fine sand).

Appendix 4

Rock Sample Analytical Results

Multi-Element Analyses

TSL LABORATORIES
2 - 302 48th Street • Saskatoon, SK • S7K 6A4
P (306) 931-1033 F (306) 242-4717 E info@tsllabs.com

Company:	Mr. Glen Prior	TSL Report:	S54870
Geologist:	G. Prior	Date Received:	Nov 28, 2017
Project:	DA	Date Reported:	Dec 18, 2017
Purchase Order:		Invoice:	75149

Sample Type:	Number	Size Fraction	Sample Preparation
Rock	36	Reject ~ 70% at -10 mesh (1.70 mm) Pulp ~ 95% at -150 mesh (106 µm)	Crush, Riffle Split, Pulverize
Pulp	0		None

Pulp Size: ~250 gram

ICP-MS Aqua Regia Digestion HCl-HNO_3

The Aqua Regia Leach digestion liberates most of the metals except those marked with an asterisk where the digestion will not be complete.

Element Name	Lower Detection Limit	Upper Detection Limit	Element Name	Lower Detection Limit	Upper Detection Limit
Ag	0.1 ppm	100 ppm	Mn *	1 ppm	10000 ppm
Al *	0.01 %	10 %	Mo	0.1 ppm	2000 ppm
As	0.5 ppm	10000 ppm	Na *	0.001%	10 %
Au	0.5 ppb	100 ppm	Ni	0.1 ppm	10000 ppm
B *	1 ppm	2000 ppm	P *	0.001%	5 %
Ba *	1 ppm	1000 ppm	Pb	0.1 ppm	10000 ppm
Bi	0.1 ppm	2000 ppm	S	0.05 %	10 %
Ca *	0.01%	40 %	Sb	0.1 ppm	2000 ppm
Cd	0.1 ppm	2000 ppm	Sc	0.1 ppm	100 ppm
Co	0.1 ppm	2000 ppm	Se	0.5 ppm	1000 ppm
Cr *	1 ppm	10000 ppm	Sr *	1 ppm	10000 ppm
Cu	0.1 ppm	10000 ppm	Te	1 ppm	2000 ppm
Fe *	0.01%	40 %	Th *	0.1 ppm	2000 ppm
Ga *	1 ppm	1000 ppm	Ti *	0.001%	10 %
Hg	0.01 ppm	100 ppm	Tl	0.1 ppm	1000 ppm
K *	0.01%	10 %	U *	0.1 ppm	2000 ppm
La *	1 ppm	10000 ppm	V *	2 ppm	10000 ppm
Mg *	0.01%	30 %	W *	0.1 ppm	100 ppm
			Zn	1 ppm	10000 ppm

TSL LABORATORIES INC.

2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

Mr. Glen Prior
Attention: G. Prior
Project: DA
Sample: 36 Rock/0 Pulp

Report No: S54870
Date: December 18, 2017

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element Sample	Ag ppm	Al %	As ppm	Au ppb	B ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %
DA2001R	0.1	0.13	3.6	12.5	<20	38	0.2	0.13	0.1	5.2	156	12.9	2.23	<1	<0.01	0.05	5	0.06	408	3.4	0.02	24.7	0.024
DA2002R	0.2	0.42	4.3	0.8	<20	428	<0.1	0.11	0.3	1.7	180	45.3	1.62	2	0.02	0.09	2	0.14	62	45.8	0.033	24	0.021
DA2008R1	0.1	0.32	2.7	0.6	<20	187	<0.1	0.34	0.4	5.8	152	44.8	1.3	1	<0.01	0.07	10	0.14	122	2.6	0.052	45.3	0.047
DA2008R2	0.1	0.25	9.4	<0.5	<20	190	<0.1	0.38	0.4	4.1	133	40.6	1.1	1	<0.01	0.06	5	0.16	94	1.9	0.041	22.7	0.083
DA2037R	0.1	0.28	9.5	2.4	<20	2456	<0.1	0.05	<0.1	7.9	183	9.1	1.29	<1	0.21	0.07	8	0.02	358	1.1	0.06	9.6	0.008
DA2038R	<0.1	0.3	15.6	<0.5	<20	3819	<0.1	0.07	<0.1	2.6	84	12.2	1.57	<1	0.01	0.19	17	0.03	553	0.8	0.018	4.2	0.013
DA2044R	<0.1	0.52	9.9	<0.5	<20	312	<0.1	0.19	<0.1	4.2	189	16.2	1.79	2	0.05	0.23	16	0.04	445	0.9	0.09	9.9	0.054
DA4001	<0.1	0.19	<0.5	385.1	<20	62	<0.1	0.28	0.3	0.7	73	1.4	0.16	<1	17.94	0.05	3	<0.01	30	0.5	<0.001	2.6	0.001
DA4002	<0.1	0.24	2.1	75	<20	95	<0.1	0.15	0.6	3.6	139	5.2	0.5	1	7.68	0.08	8	<0.01	58	0.6	<0.001	8.8	0.002
DA4003	<0.1	0.3	34.3	4.6	<20	2956	<0.1	0.02	<0.1	2.6	120	5.2	1.19	1	4.67	0.14	13	0.01	92	3	0.002	3.8	0.004
DA4004	<0.1	0.18	8.2	43.3	<20	126	<0.1	0.02	0.3	2.7	153	2.7	1.49	<1	18.05	0.07	<1	<0.01	112	3.9	<0.001	7	0.003
DA4005	<0.1	0.31	10.7	11	<20	474	<0.1	0.01	<0.1	2.2	123	3.4	0.3	<1	4.05	0.13	<1	<0.01	20	4.7	0.002	4.4	0.002
DA4006	<0.1	0.31	11.8	21.3	<20	455	<0.1	0.03	0.1	1.8	104	3.1	0.5	1	4.34	0.03	5	<0.01	26	23.5	<0.001	4.5	0.003
DA4007	<0.1	0.18	3.1	25.3	<20	60	<0.1	0.17	0.6	2.5	94	3.2	0.2	<1	34.24	0.07	<1	<0.01	31	3.2	<0.001	3.4	0.002
DA4008	<0.1	0.24	15.6	5.7	<20	321	<0.1	0.14	0.2	3	126	2.8	0.88	<1	31.68	0.1	77	<0.01	103	1.7	0.007	6.6	0.006
DA4009	<0.1	0.36	2.1	11.8	<20	178	<0.1	0.11	0.2	2.1	77	1.3	0.8	2	9.47	0.09	5	0.01	102	2.4	0.002	2.6	0.006
DA4010	<0.1	0.31	6.3	4.7	<20	4059	<0.1	0.02	<0.1	0.9	97	1.6	0.33	1	16.37	0.19	14	0.02	45	1.9	0.002	3.7	0.005
DA4011	<0.1	0.31	2.5	1.8	<20	140	0.1	0.02	0.1	1	89	2.6	0.44	<1	1.97	0.12	30	<0.01	38	0.5	0.005	2.5	0.006
DA4012	0.1	0.35	25.3	18.5	<20	1090	0.4	0.03	0.1	2.7	113	4.2	0.56	1	8.02	0.16	12	0.01	35	4.8	0.004	5.1	0.011
DA4013	<0.1	0.33	2.4	50.6	<20	309	<0.1	0.15	0.5	3	96	0.5	0.73	1	10.34	0.08	14	0.02	240	1.9	0.002	4.7	0.005
DA4014	<0.1	0.31	21.7	<0.5	<20	216	<0.1	0.01	<0.1	5.3	120	6.1	2.7	1	6.7	0.11	42	<0.01	835	1.7	0.005	5	0.011
DA4015	<0.1	0.27	1.6	1.1	<20	141	0.4	0.02	<0.1	0.6	69	3.4	0.72	<1	0.25	0.13	10	<0.01	37	0.7	0.051	1.7	0.019
DA4016	<0.1	0.17	1.2	<0.5	<20	104	0.4	<0.01	<0.1	0.4	89	3	0.31	<1	0.21	0.15	51	<0.01	19	0.5	0.033	3.3	0.007
DA4017	<0.1	0.25	<0.5	7.6	<20	77	<0.1	0.14	0.2	1.1	93	2.1	0.14	<1	8.63	0.06	14	0.01	59	<0.1	<0.001	3.4	0.002
DA4018	<0.1	0.28	4.5	2.3	<20	325	<0.1	0.06	0.7	1.9	112	3	0.42	<1	9.77	0.14	24	0.01	40	1.7	0.002	4.9	0.006
DA4019	<0.1	0.4	9.6	<0.5	<20	644	<0.1	0.01	<0.1	1.1	83	4.2	0.64	1	4.17	0.12	4	0.01	68	9.2	0.002	2.5	0.007
DA4020	<0.1	0.27	15.3	1.9	<20	996	<0.1	0.02	<0.1	2.1	115	5	0.88	<1	4.56	0.1	8	<0.01	113	1.7	0.002	4.8	0.008
DA4021	<0.1	0.47	11.4	<0.5	<20	84	<0.1	0.04	0.1	3.4	83	9.3	0.77	2	0.66	0.19	9	0.04	270	0.4	0.004	2.7	0.015
DA4022	<0.1	0.89	8.5	<0.5	<20	149	0.4	0.08	<0.1	4.8	81	5.5	2.18	4	0.69	0.43	16	0.25	157	0.4	0.003	3.4	0.038
DA4023	<0.1	0.46	8	<0.5	<20	112	<0.1	0.02	0.1	3.4	44	2.7	4.11	<1	0.56	0.12	5	<0.01	440	0.8	0.001	2.8	0.03
DA4024	<0.1	0.35	7.8	<0.5	<20	53	<0.1	0.01	<0.1	1.4	78	3.6	1.1	<1	2.95	0.13	11	<0.01	159	0.5	0.002	3.5	0.011
DA4025	<0.1	0.29	6	<0.5	<20	66	<0.1	<0.01	<0.1	0.8	61	6.5	0.49	<1	1.01	0.11	19	<0.01	176	0.3	0.004	1.6	0.003
DA4026	<0.1	0.81	56.8	<0.5	<20	350	<0.1	0.22	0.2	19.3	69	12.7	4.35	3	0.16	0.09	9	0.08	1584	0.8	0.005	30.5	0.093
DA4027	<0.1	0.69	25.4	<0.5	<20	195	<0.1	14.24	0.3	26.8	56	16	3.07	3	0.12	0.05	9	0.46	986	0.4	0.003	23.4	0.06
DA4028	<0.1	0.69	802.3	<0.5	<20	723	<0.1	0.31	0.8	132.9	70	22	7.85	2	0.21	0.05	15	0.06	3232	8.8	0.003	73.5	0.074
DA4029	<0.1	0.72	52.4	3.1	<20	754	<0.1	0.19	0.2	17.9	42	8.2	16.17	2	0.28	0.05	11	0.06	2898	1.7	<0.001	10.9	0.073
STD OREAS45EA	0.3	3.57	11.4	59.7	<20	158	0.3	0.03	<0.1	58.9	783	727.9	23.11	14	<0.01	0.06	8	0.08	422	1.7	0.019	384.6	0.03
STD DS11	1.8	1.18	45.3	62	<20	447	13.7	1.08	2.8	14.2	60	155.3	3.12	5	0.28	0.41	20	0.85	1047	15.6	0.074	75	0.062
BLK	<0.1	<0.01	<0.5	<0.5	<20	<1	<0.1	<0.01	<0.1	<0.1	<1	<0.1	<0.01	<1	<0.01	<0.01	<1	<0.01	<1	<0.1	<0.001	<0.1	<0.001

A 0.5 g sample is digested with HCl-HNO3

Signed: ________________
Mark Acres - Quality Assurance

TSL LABORATORIES INC.

2 - 302 48th Street East, Saskatoon, Saskatchewan, S7K 6A4
Tel: (306) 931-1033 Fax: (306) 242-4717

Mr. Glen Prior
Attention: G. Prior
Project: DA
Sample: 36 Rock/0 Pulp

Report No: S54870
Date: December 18, 2017

MULTIELEMENT ICP-MS ANALYSIS

Aqua Regia Digestion

Element	Pb	S	Sb	Sc	Se	Sr	Te	Th	Ti	Tl	V	W	Zn
Sample	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
DA2001R	5.3	0.55	0.8	2.3	0.5	5	0.3	1	0.003	<0.1	31	<0.1	31
DA2002R	3.1	0.09	1.2	5.6	5	18	<0.2	1.5	0.013	<0.1	516	0.1	217
DA2008R1	1.9	0.46	0.3	1.2	1.8	22	<0.2	2.6	0.06	0.2	32	<0.1	48
DA2008R2	1.6	0.22	0.8	1.5	1.4	20	<0.2	1.8	0.053	<0.1	23	<0.1	43
DA2037R	7.5	0.07	1.9	4.3	<0.5	50	<0.2	1.4	0.001	0.1	21	<0.1	33
DA2038R	6.1	0.1	2	1.6	<0.5	23	<0.2	5	0.001	0.1	3	<0.1	22
DA2044R	9.6	0.13	2.4	3.4	<0.5	28	<0.2	5.4	0.004	<0.1	16	<0.1	35
DA4001	<0.1	2.66	>2000.0	<0.1	<0.5	13	1.9	<0.1	<0.001	2.6	<2	<0.1	22
DA4002	<0.1	2.09	>2000.0	0.2	<0.5	9	2.2	<0.1	<0.001	3.4	<2	<0.1	66
DA4003	19.5	0.23	>2000.0	1.4	3.2	58	2.1	7.4	<0.001	0.5	7	<0.1	35
DA4004	<0.1	1.95	>2000.0	0.4	<0.5	6	2.2	<0.1	<0.001	1.9	4	<0.1	151
DA4005	2.7	0.85	>2000.0	0.6	2.5	10	1.9	1.6	<0.001	0.6	3	<0.1	23
DA4006	0.2	0.99	>2000.0	1.5	3.4	14	2	3.8	0.001	1	5	<0.1	19
DA4007	<0.1	3.89	>2000.0	0.1	<0.5	15	2	<0.1	<0.001	11	<2	<0.1	85
DA4008	1.3	0.62	>2000.0	1	<0.5	42	2.3	47.9	<0.001	2.1	2	<0.1	56
DA4009	<0.1	0.9	>2000.0	0.6	<0.5	15	2	<0.1	<0.001	1.5	8	<0.1	70
DA4010	6.1	0.16	>2000.0	1.3	<0.5	63	2	13.7	<0.001	0.2	3	<0.1	10
DA4011	3.8	<0.05	>2000.0	1.9	<0.5	6	2	16.5	<0.001	0.1	3	<0.1	6
DA4012	7.2	0.68	>2000.0	1.5	<0.5	20	1.7	10.1	0.001	1.4	5	<0.1	19
DA4013	<0.1	1.04	>2000.0	0.5	<0.5	17	2	0.7	<0.001	3.3	3	<0.1	53
DA4014	5.5	<0.05	105.7	0.9	<0.5	5	<0.2	32	<0.001	0.3	3	0.6	51
DA4015	72	0.1	110.4	1.3	<0.5	22	<0.2	5.7	<0.001	<0.1	4	<0.1	3
DA4016	12.6	<0.05	22.1	0.6	<0.5	14	<0.2	12.3	<0.001	<0.1	<2	<0.1	1
DA4017	<0.1	1.82	>2000.0	<0.1	<0.5	6	2	<0.1	<0.001	2.6	<2	<0.1	12
DA4018	2.7	<0.05	>2000.0	0.9	<0.5	15	1.9	10.4	0.001	0.7	4	<0.1	19
DA4019	19.7	<0.05	359.2	1.4	<0.5	8	<0.2	1.4	0.001	0.1	13	0.2	17
DA4020	7.2	<0.05	1330.8	1.6	<0.5	10	1.9	2.5	<0.001	0.1	9	<0.1	12
DA4021	3.2	<0.05	23.3	2.3	<0.5	17	<0.2	8.3	0.015	0.2	11	0.7	21
DA4022	4.2	<0.05	12.5	4.1	<0.5	69	<0.2	8	0.069	0.4	25	2	31
DA4023	7	<0.05	8.9	1.2	<0.5	5	<0.2	3	<0.001	0.1	7	0.1	80
DA4024	3.8	<0.05	5.6	0.8	<0.5	8	<0.2	7.2	<0.001	0.1	2	0.1	23
DA4025	4.2	<0.05	11.4	0.6	<0.5	2	<0.2	16.8	<0.001	<0.1	<2	<0.1	8
DA4026	7.3	<0.05	4.6	15	<0.5	27	<0.2	3.2	0.008	0.4	102	<0.1	140
DA4027	6.5	<0.05	2.9	10.1	<0.5	67	<0.2	2.3	0.01	0.1	69	<0.1	93
DA4028	16.7	<0.05	23.5	28	<0.5	34	<0.2	2.8	0.013	1.5	146	<0.1	215
DA4029	5.1	<0.05	3.9	38.4	0.7	22	<0.2	2.4	0.004	0.2	240	<0.1	278
STD OREAS45EA	15.9	<0.05	0.3	86.4	0.9	4	<0.2	11.1	0.109	<0.1	312	<0.1	35
STD DS11	145.2	0.31	8.6	3.6	1.7	72	4.8	7.8	0.099	4.7	48	3.1	356
BLK	<0.1	<0.05	<0.1	<0.1	<0.5	<1	<0.2	<0.1	<0.001	<0.1	<2	<0.1	<1

A 0.5 g sample is digested with HCl-HNO3

Signed: ______________________
Mark Acres - Quality Assurance

Appendix 5

Rock Sample Analytical Results

Antimony Assays and Repeat Gold Analyses

TSL LABORATORIES
2 - 302 48th Street • Saskatoon, SK • S7K 6A4
P (306) 931-1033 F (306) 242-4717 E info@tsllabs.com

Company: Mr. Glen Prior
Geologist: G. Prior
Project: GE

TSL Report: S54896
Date Received: Jan 04, 2018
Date Reported: Jan 09, 2018
Invoice: 75155

Remarks:

Sample Type:	Number	Size Fraction	Sample Preparation
Pulp	16		None

Standard Procedure:

Samples for Au Fire Assay/AA (ppb) are weighed at 30 grams.
Samples for Sb (%) are weighed at 0.5 gram.

Element Name	Unit	Extraction Technique	Lower Detection Limit	Upper Detection Limit
Au	ppb	Fire Assay/AA	5	1000
Sb	%	HNO3-HCl/AA	0.01	20%

TSL LABORATORIES
#2 - 302 48th Street · Saskatoon, SK · S7K 6A4
P (306) 931-1033 F (306) 242-4717 E info@tsllabs.com

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Mr. Glen Prior
793 Birch Avenue
Sherwood Park, Alberta T8A 1X2

REPORT No.
S54896

SAMPLE(S) OF 16 Pulp

INVOICE #:75155
P.O.:

G. Prior
Project: GE

Over-Range ICP on S54870

	Au ppb	Au1 ppb	Sb %	File Name
DA4001	350	340	13.61	S54896
DA4002			8.82	S54896
DA4003			0.58	S54896
DA4004	35		6.98	S54896
DA4005			2.08	S54896
DA4006			2.53	S54896
DA4007			13.24	S54896
DA4008			2.52	S54896
DA4009			3.80	S54896
DA4010			0.32	S54896
DA4011			0.30	S54896
DA4012			1.73	S54896
DA4013	45		4.57	S54896
DA4017			8.78	S54896
DA4018			0.53	S54896
DA4028	<5			S54896
GS1P5P	1550			S54896

COPIES TO:
INVOICE TO: G. Prior, Alberta

Jan 21/18

SIGNED ____________
Mark Acres - Quality Assurance

Appendix 6

C-Horizon Soil Analytical Results

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: GLEN PRIOR
793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

Finalized Date: 22-OCT-2017
This copy reported on
23-OCT-2017
Account: PRIGLE

CERTIFICATE WH17195226

Project: DA

This report is for 53 Rock samples submitted to our lab in Whitehorse, YT, Canada on 12-SEP-2017.

The following have access to data associated with this certificate:

GLEN PRIOR

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-32	Pulverize 1000g to 85% < 75 um

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
AuME-TL43	25g Trace Au + Multi Element PKG	ICP-MS

To: GLEN PRIOR
ATTN: GLEN PRIOR
793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: GLEN PRIOR
793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

Finalized Date: 22-OCT-2017
Account: PRIGLE

Project: DA

CERTIFICATE OF ANALYSIS WH17195226

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	AuME-TL43 Au ppm 0.001	AuME-TL43 Ag ppm 0.01	AuME-TL43 Al % 0.01	AuME-TL43 As ppm 0.1	AuME-TL43 B ppm 10	AuME-TL43 Ba ppm 10	AuME-TL43 Be ppm 0.05	AuME-TL43 Bi ppm 0.01	AuME-TL43 Ca % 0.01	AuME-TL43 Cd ppm 0.01	AuME-TL43 Ce ppm 0.02	AuME-TL43 Co ppm 0.1	AuME-TL43 Cr ppm 1	AuME-TL43 Cs ppm 0.05
DA2001C		0.30	0.002	0.05	0.40	18.7	10	70	0.22	0.09	0.13	0.19	12.75	6.7	43	0.75
DA2002C		0.32	0.001	0.23	1.40	27.9	10	200	0.48	0.08	0.28	0.78	23.4	6.0	41	1.97
DA2004C		0.37	0.001	0.03	1.47	36.4	10	210	0.56	0.04	0.16	0.27	21.6	12.9	72	2.10
DA2005C		0.61	<0.001	0.07	1.27	31.4	10	190	0.41	0.06	0.19	0.23	19.30	8.9	53	1.75
DA2006C		0.87	<0.001	0.08	0.91	16.0	10	110	0.37	0.07	0.14	0.49	18.50	11.4	59	1.92
DA2007C		0.51	0.001	0.04	0.86	11.4	10	80	0.31	0.08	0.24	0.16	20.7	5.1	21	0.63
DA2008C		0.50	0.011	0.12	1.07	62.1	10	190	0.40	0.04	0.23	0.24	22.6	10.5	50	1.97
DA2009C		0.59	0.004	0.17	0.74	174.5	10	120	0.68	0.04	0.20	0.24	33.0	11.4	32	2.05
DA2010C		0.48	<0.001	0.05	1.94	75.2	10	410	0.63	0.03	0.20	0.17	40.1	13.4	107	3.66
DA2011C		0.51	0.003	0.11	2.27	38.0	10	200	0.54	0.11	0.23	0.25	26.1	10.4	52	2.46
DA2012C		0.86	0.001	0.08	0.97	54.5	10	90	0.31	0.05	0.19	0.11	19.80	6.9	34	1.40
DA2013C		0.87	0.002	0.05	1.09	19.6	10	130	0.36	0.08	0.19	0.08	18.60	7.7	36	1.44
DA2014C		0.73	0.002	0.04	0.98	12.7	10	180	0.38	0.06	0.19	0.05	19.35	7.8	35	1.27
DA2015C		0.44	0.010	0.03	1.21	8.1	10	180	0.37	0.06	0.20	0.06	20.2	6.8	40	1.45
DA2016C		0.43	0.004	0.02	1.50	11.5	10	220	0.44	0.08	0.21	0.05	22.6	9.9	52	1.86
DA2017C		0.50	0.001	0.01	2.07	11.6	10	450	0.62	0.19	0.18	0.07	27.0	14.0	75	3.46
DA2018C		0.27	0.006	0.03	0.84	3.9	10	120	0.27	0.05	0.35	0.08	22.2	3.7	15	0.46
DA2019C		0.60	0.001	0.02	0.66	10.8	10	140	0.26	0.06	0.21	0.10	19.75	4.5	14	1.00
DA2020C		0.46	0.007	0.03	0.79	7.3	10	140	0.23	0.09	0.28	0.06	24.7	3.9	17	1.03
DA2021C		0.41	0.011	0.02	0.78	5.3	10	120	0.26	0.05	0.26	0.04	18.95	3.7	14	1.13
DA2022C		0.60	0.001	0.01	0.61	5.6	10	130	0.22	0.04	0.22	0.03	17.00	3.9	12	1.30
DA2023C		0.78	0.001	0.03	0.83	7.2	10	190	0.38	0.04	0.26	0.08	38.7	11.1	24	2.75
DA2024C		0.73	0.004	0.02	0.61	5.0	10	120	0.24	0.07	0.28	0.04	21.8	3.8	14	1.11
DA2025C		0.70	0.005	0.03	0.75	9.2	10	170	0.34	0.05	0.28	0.06	21.3	5.6	15	2.08
DA2026C		0.79	0.006	0.02	0.62	4.6	10	110	0.18	0.05	0.26	0.03	16.30	2.9	12	0.77
DA2027C		0.54	<0.001	0.08	1.18	82.2	10	200	0.57	0.09	0.21	0.29	25.5	11.3	48	2.03
DA2028C		0.44	0.001	0.10	1.72	23.7	10	350	0.47	0.10	0.31	0.14	29.8	10.5	68	5.36
DA2029C		0.32	0.001	0.04	1.27	217	10	300	0.63	0.23	0.18	0.28	23.2	11.8	41	1.81
DA2030C		0.48	0.001	0.10	1.81	51.6	10	330	0.58	0.13	0.21	0.21	23.3	11.2	62	2.61
DA2031C		0.35	0.007	0.07	0.79	78.4	10	190	0.93	0.17	0.11	0.34	52.1	8.1	12	1.02
DA2032C		0.34	0.001	0.01	1.20	8.6	10	190	0.49	0.05	0.34	0.04	24.8	8.9	24	5.31
DA2033C		0.48	0.012	0.02	0.83	7.9	10	150	0.47	0.05	0.21	0.05	26.3	7.0	16	4.75
DA2034C		0.65	0.001	0.03	0.64	7.6	10	130	0.34	0.07	0.28	0.03	21.4	3.7	14	2.29
DA2035C		0.57	0.001	0.02	0.79	6.8	10	110	0.26	0.07	0.30	0.02	21.3	4.2	17	1.39
DA2036C		0.47	0.003	0.03	0.75	6.1	10	150	0.27	0.05	0.36	0.03	23.7	3.5	16	1.44
DA2037C		0.62	0.017	0.03	0.68	18.4	10	260	0.53	0.10	0.24	0.06	20.7	4.8	15	2.69
DA2038C		0.54	0.006	0.02	0.51	9.7	10	360	0.34	0.05	0.17	0.05	21.4	4.3	11	1.75
DA2039C		0.34	0.020	0.08	0.82	83.5	10	280	0.95	0.15	0.29	0.24	40.2	11.5	14	4.57
DA2040C		0.66	0.028	0.03	1.20	19.6	10	230	0.46	0.05	0.33	0.07	23.0	11.2	15	7.23
DA2041C		0.80	0.001	0.04	1.08	17.8	10	240	0.49	0.16	0.36	0.04	26.6	10.4	24	6.48

***** See Appendix Page for comments regarding this certificate *****

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To: GLEN PRIOR
793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

Finalized Date: 22-OCT-2017
Account: PRIGLE

Project: DA

CERTIFICATE OF ANALYSIS WH17195226

Sample Description	Method	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43
	Analyte	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
	LOR	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05
DA2001C		29.5	2.25	1.94	<0.05	<0.02	<0.01	0.020	0.12	6.4	1.4	0.07	329	3.14	0.04	0.07
DA2002C		57.5	3.63	6.79	0.06	<0.02	0.02	0.034	0.21	13.7	9.6	0.39	221	7.37	0.10	0.46
DA2004C		50.8	3.38	6.15	0.05	0.02	0.01	0.045	0.40	10.6	6.6	0.50	377	3.84	0.06	0.26
DA2005C		31.2	2.83	5.29	0.05	0.02	0.01	0.027	0.31	10.2	6.6	0.48	315	2.28	0.05	0.49
DA2006C		37.5	2.93	4.16	<0.05	<0.02	0.01	0.027	0.19	9.3	4.6	0.32	456	3.28	0.03	0.32
DA2007C		14.9	1.77	2.78	<0.05	<0.02	0.01	0.016	0.09	10.1	4.8	0.22	202	0.91	0.04	0.44
DA2008C		38.4	3.18	4.59	0.05	<0.02	0.02	0.029	0.34	11.4	5.1	0.44	428	3.13	0.05	0.47
DA2009C		43.5	3.59	2.99	0.05	0.02	0.10	0.033	0.19	16.8	3.4	0.16	522	3.33	0.03	0.17
DA2010C		62.8	3.90	8.08	0.09	0.05	0.02	0.036	0.78	23.0	9.6	1.19	405	3.25	0.06	0.18
DA2011C		26.6	3.31	7.66	<0.05	0.02	0.03	0.031	0.21	14.1	15.4	0.67	437	1.90	0.02	0.92
DA2012C		19.7	2.27	4.12	<0.05	0.02	0.03	0.021	0.17	10.0	7.5	0.36	268	0.89	0.02	0.46
DA2013C		22.0	2.60	4.61	<0.05	0.02	0.01	0.023	0.20	9.6	9.5	0.42	286	1.49	0.03	0.64
DA2014C		22.0	2.41	3.89	<0.05	0.02	0.01	0.020	0.26	9.8	7.2	0.40	304	0.87	0.05	0.38
DA2015C		21.9	2.61	4.77	0.05	0.04	<0.01	0.019	0.38	10.1	8.7	0.51	252	0.69	0.06	0.38
DA2016C		25.2	2.94	5.98	0.05	0.03	<0.01	0.022	0.37	11.2	12.5	0.69	302	0.69	0.06	0.31
DA2017C		42.6	3.82	7.83	0.07	0.03	<0.01	0.034	0.85	12.9	13.5	1.07	363	0.70	0.05	0.20
DA2018C		10.0	1.66	2.71	<0.05	0.06	0.01	0.009	0.13	11.2	4.2	0.22	219	0.48	0.10	0.35
DA2019C		13.5	2.06	2.64	<0.05	<0.02	0.01	0.016	0.12	10.2	3.9	0.18	309	0.57	0.05	0.33
DA2020C		10.4	2.20	3.26	<0.05	0.02	0.01	0.016	0.11	12.8	6.4	0.24	248	0.52	0.06	0.55
DA2021C		9.2	1.69	2.72	<0.05	0.03	0.01	0.013	0.12	9.4	4.1	0.21	221	0.45	0.07	0.28
DA2022C		9.1	1.66	2.56	<0.05	<0.02	0.01	0.016	0.09	8.3	3.9	0.21	250	0.43	0.04	0.46
DA2023C		15.6	2.56	3.75	0.05	0.02	0.03	0.025	0.17	13.6	5.7	0.32	1040	0.57	0.04	0.49
DA2024C		7.4	1.86	2.51	0.05	0.03	0.01	0.011	0.09	10.9	4.2	0.21	209	0.41	0.05	0.37
DA2025C		11.3	2.10	2.89	<0.05	0.02	0.06	0.016	0.11	11.2	4.6	0.22	363	0.47	0.04	0.47
DA2026C		6.4	1.35	2.20	<0.05	<0.02	0.02	0.010	0.09	8.4	4.3	0.19	160	0.39	0.05	0.52
DA2027C		34.5	3.56	5.04	<0.05	0.02	0.02	0.040	0.32	12.0	6.4	0.45	558	2.71	0.03	0.84
DA2028C		37.4	3.77	7.22	0.06	0.02	0.02	0.042	0.50	14.5	10.2	0.87	432	1.42	0.04	1.93
DA2029C		39.0	3.64	4.39	<0.05	0.04	0.01	0.031	0.56	11.0	5.8	0.52	417	2.00	0.03	0.35
DA2030C		34.3	3.77	6.78	0.05	0.02	0.01	0.032	0.63	11.4	11.7	0.87	410	1.98	0.05	0.94
DA2031C		41.6	3.27	2.84	0.05	0.12	0.04	0.051	0.22	23.8	2.7	0.12	953	6.36	0.02	0.09
DA2032C		18.7	3.16	4.63	0.05	0.02	0.04	0.028	0.24	10.4	6.9	0.36	588	0.64	0.10	0.34
DA2033C		13.8	2.45	3.36	<0.05	<0.02	0.06	0.028	0.16	8.0	4.7	0.23	743	0.48	0.05	0.28
DA2034C		8.6	2.00	2.36	<0.05	0.02	0.05	0.014	0.12	11.3	3.6	0.17	215	0.48	0.05	0.42
DA2035C		8.5	2.07	2.93	<0.05	<0.02	0.02	0.013	0.11	10.9	5.9	0.25	235	0.48	0.05	0.49
DA2036C		8.6	2.02	2.75	<0.05	0.03	0.03	0.012	0.13	12.0	5.0	0.22	245	0.54	0.08	0.57
DA2037C		9.3	2.46	2.22	<0.05	0.03	0.12	0.018	0.13	10.4	11.2	0.12	294	0.67	0.02	0.28
DA2038C		11.4	2.08	1.90	<0.05	0.02	0.03	0.013	0.17	9.8	2.4	0.10	529	0.53	0.04	0.24
DA2039C		36.5	4.54	3.14	0.06	0.02	0.12	0.051	0.26	18.8	4.6	0.13	893	1.45	0.01	0.12
DA2040C		22.7	3.93	4.61	0.05	0.03	0.05	0.038	0.46	10.3	7.2	0.51	598	0.74	0.05	0.35
DA2041C		22.3	3.18	4.26	0.05	0.02	0.13	0.031	0.19	14.3	6.9	0.41	614	0.76	0.04	0.49

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SHERWOOD PARK AB T8A 1X2

Finalized Date: 22-OCT-2017
Account: PRIGLE

Project: DA

CERTIFICATE OF ANALYSIS WH17195226

Sample Description	Method Analyte Units LOR	AuME-TL43 Ni ppm 0.2	AuME-TL43 P ppm 10	AuME-TL43 Pb ppm 0.2	AuME-TL43 Rb ppm 0.1	AuME-TL43 Re ppm 0.001	AuME-TL43 S % 0.01	AuME-TL43 Sb ppm 0.05	AuME-TL43 Sc ppm 0.1	AuME-TL43 Se ppm 0.2	AuME-TL43 Sn ppm 0.2	AuME-TL43 Sr ppm 0.2	AuME-TL43 Ta ppm 0.01	AuME-TL43 Te ppm 0.01	AuME-TL43 Th ppm 0.2	AuME-TL43 Ti % 0.005
DA2001C		32.0	530	3.9	6.6	0.001	0.13	0.67	3.4	0.8	0.7	15.8	<0.01	0.11	1.7	0.009
DA2002C		26.0	680	5.1	16.6	0.002	0.15	1.23	7.1	2.8	0.8	52.7	<0.01	0.12	1.8	0.049
DA2004C		56.3	670	4.3	23.5	0.001	0.03	1.37	9.5	1.1	0.8	30.9	<0.01	0.06	2.8	0.090
DA2005C		33.9	530	4.7	20.1	<0.001	0.05	0.77	6.1	0.9	0.7	25.3	<0.01	0.06	2.5	0.089
DA2006C		47.6	600	6.0	15.0	0.001	0.03	0.64	6.0	0.9	0.6	17.5	<0.01	0.06	1.7	0.052
DA2007C		17.9	610	5.2	6.7	<0.001	0.01	0.60	3.0	0.4	0.4	19.5	<0.01	0.03	2.7	0.038
DA2008C		41.8	580	5.7	21.5	<0.001	0.02	2.56	7.0	0.7	0.7	23.7	<0.01	0.06	2.5	0.068
DA2009C		48.1	690	12.4	11.9	<0.001	0.01	8.40	7.5	1.0	0.5	21.1	<0.01	0.07	3.8	0.017
DA2010C		71.9	630	4.4	44.4	0.002	0.17	5.88	11.0	1.8	0.9	53.4	<0.01	0.10	5.0	0.186
DA2011C		31.2	450	7.7	22.1	<0.001	0.01	6.63	7.1	0.4	0.8	27.2	<0.01	0.04	3.7	0.091
DA2012C		22.8	440	5.3	13.5	<0.001	<0.01	3.03	4.4	0.3	0.6	20.5	<0.01	0.03	2.6	0.060
DA2013C		25.0	320	6.8	14.8	0.001	0.01	0.99	4.1	0.3	0.6	21.0	<0.01	0.04	2.5	0.072
DA2014C		24.4	360	4.1	15.5	<0.001	0.01	0.71	4.4	0.2	0.7	22.3	<0.01	0.03	2.5	0.067
DA2015C		26.6	390	3.5	20.0	<0.001	0.01	0.37	4.6	0.2	0.9	21.1	<0.01	0.04	2.8	0.081
DA2016C		34.9	360	3.9	22.7	<0.001	<0.01	0.40	5.9	0.3	0.9	22.4	<0.01	0.04	3.2	0.099
DA2017C		50.4	530	4.3	44.8	<0.001	0.01	0.38	9.2	0.4	1.1	17.8	<0.01	0.08	3.8	0.154
DA2018C		7.8	330	2.9	6.2	<0.001	<0.01	0.35	2.3	<0.2	0.7	34.9	<0.01	0.01	3.0	0.055
DA2019C		7.8	390	4.1	6.9	<0.001	<0.01	1.14	3.0	<0.2	0.6	18.8	<0.01	0.02	2.6	0.037
DA2020C		8.0	290	3.9	6.8	<0.001	0.01	0.69	3.1	<0.2	0.7	22.7	<0.01	0.02	3.2	0.051
DA2021C		7.6	270	3.3	6.9	<0.001	<0.01	0.57	2.5	<0.2	0.6	24.4	<0.01	0.01	2.7	0.044
DA2022C		6.0	240	3.4	6.4	<0.001	<0.01	0.65	2.5	<0.2	0.5	15.6	<0.01	0.02	1.9	0.032
DA2023C		11.0	320	4.2	13.2	<0.001	0.01	0.78	4.5	<0.2	0.7	18.4	<0.01	0.03	3.2	0.048
DA2024C		6.6	370	3.3	5.7	<0.001	<0.01	0.69	2.2	<0.2	0.6	20.7	<0.01	0.02	3.1	0.045
DA2025C		7.8	350	4.0	7.2	<0.001	0.01	1.12	3.4	<0.2	0.5	19.2	<0.01	0.02	2.0	0.026
DA2026C		6.0	320	3.2	5.4	<0.001	<0.01	0.47	1.9	<0.2	0.5	19.6	<0.01	0.01	2.2	0.038
DA2027C		38.0	520	8.0	22.6	<0.001	0.01	1.67	7.4	0.4	1.1	23.2	<0.01	0.04	2.9	0.067
DA2028C		42.6	540	5.5	44.9	<0.001	0.02	0.96	10.2	0.5	1.5	24.9	<0.01	0.03	3.8	0.125
DA2029C		46.8	530	9.9	29.2	<0.001	<0.01	0.79	5.1	0.7	1.0	16.0	<0.01	0.05	3.2	0.074
DA2030C		39.5	470	7.7	38.0	<0.001	0.03	0.56	6.7	0.4	1.5	21.1	<0.01	0.04	3.3	0.119
DA2031C		20.5	360	13.3	11.5	<0.001	0.01	1.87	6.2	0.5	1.0	14.5	<0.01	0.06	10.9	0.008
DA2032C		12.8	400	4.8	14.9	<0.001	<0.01	1.67	5.5	0.2	1.0	27.8	<0.01	0.02	2.8	0.052
DA2033C		9.4	250	4.8	11.4	<0.001	<0.01	1.72	4.4	<0.2	0.7	15.5	<0.01	0.01	2.3	0.027
DA2034C		6.3	340	4.4	6.9	<0.001	<0.01	1.22	2.7	<0.2	0.7	20.0	<0.01	0.01	2.8	0.034
DA2035C		7.7	330	4.1	6.2	<0.001	<0.01	0.77	2.6	<0.2	0.6	21.3	<0.01	0.01	2.8	0.045
DA2036C		7.0	370	4.0	6.8	<0.001	<0.01	0.77	2.5	<0.2	0.8	28.5	<0.01	0.01	3.1	0.049
DA2037C		7.5	250	9.4	7.5	<0.001	0.01	2.62	4.3	<0.2	0.6	27.7	<0.01	0.01	3.1	0.007
DA2038C		4.6	240	7.1	7.2	<0.001	0.01	2.54	2.4	<0.2	0.6	14.7	<0.01	0.01	2.8	0.019
DA2039C		18.8	850	14.5	13.7	<0.001	0.01	13.20	8.0	0.4	0.6	21.5	<0.01	0.09	5.2	0.006
DA2040C		9.6	600	5.5	25.7	<0.001	<0.01	4.07	10.4	0.2	0.7	19.6	<0.01	0.02	2.7	0.097
DA2041C		13.9	320	4.4	15.0	<0.001	<0.01	1.61	7.6	0.2	0.7	19.8	<0.01	0.03	2.3	0.047

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SHERWOOD PARK AB T8A 1X2

Finalized Date: 22-OCT-2017
Account: PRIGLE

Project: DA

CERTIFICATE OF ANALYSIS WH17195226

Sample Description	Method / Analyte / Units / LOR	AuME-TL43 Tl ppm 0.02	AuME-TL43 U ppm 0.05	AuME-TL43 V ppm 1	AuME-TL43 W ppm 0.05	AuME-TL43 Y ppm 0.05	AuME-TL43 Zn ppm 2	AuME-TL43 Zr ppm 0.5
DA2001C		0.09	0.73	54	0.09	5.36	76	<0.5
DA2002C		0.19	1.06	159	0.11	12.90	130	<0.5
DA2004C		0.27	0.94	141	0.10	7.59	132	0.8
DA2005C		0.20	0.73	105	0.15	6.99	97	0.7
DA2006C		0.17	0.95	108	0.09	8.94	126	<0.5
DA2007C		0.06	0.60	44	0.19	5.39	43	0.5
DA2008C		0.24	0.70	90	0.09	8.47	95	0.6
DA2009C		0.17	0.75	64	0.10	10.30	127	0.7
DA2010C		0.40	0.83	162	0.06	10.35	166	2.3
DA2011C		0.21	0.87	96	0.14	6.91	82	1.1
DA2012C		0.12	0.45	55	0.13	5.32	54	0.8
DA2013C		0.13	0.45	65	0.14	4.51	54	1.0
DA2014C		0.15	0.50	57	0.11	4.92	47	0.9
DA2015C		0.12	0.51	58	0.13	4.92	38	1.7
DA2016C		0.14	0.56	69	0.11	5.65	42	1.6
DA2017C		0.24	0.65	92	0.15	7.07	58	1.7
DA2018C		0.05	0.44	30	0.14	5.00	19	2.1
DA2019C		0.06	0.42	36	0.16	4.79	36	<0.5
DA2020C		0.07	0.51	42	0.21	5.92	30	0.8
DA2021C		0.07	0.38	29	0.14	4.42	24	1.3
DA2022C		0.06	0.30	28	0.13	4.62	26	<0.5
DA2023C		0.13	0.50	39	0.12	8.44	40	0.9
DA2024C		0.06	0.39	37	0.20	4.90	23	1.3
DA2025C		0.10	0.48	35	0.14	7.25	28	<0.5
DA2026C		0.05	0.31	27	0.16	3.42	19	0.6
DA2027C		0.40	0.76	73	0.11	7.47	129	0.6
DA2028C		0.30	0.84	88	0.14	9.85	72	1.1
DA2029C		0.35	0.75	56	0.12	5.71	111	2.1
DA2030C		0.28	0.70	76	0.17	6.12	94	1.1
DA2031C		0.29	0.92	18	0.06	9.87	154	10.0
DA2032C		0.17	0.44	50	0.11	7.34	47	1.2
DA2033C		0.16	0.38	36	0.13	6.05	43	<0.5
DA2034C		0.13	0.40	29	0.15	6.77	24	1.1
DA2035C		0.08	0.41	40	0.21	4.87	24	<0.5
DA2036C		0.08	0.45	35	0.18	5.32	24	1.1
DA2037C		0.23	0.62	37	0.16	5.58	41	0.9
DA2038C		0.09	0.39	29	0.17	4.94	27	1.1
DA2039C		0.43	0.97	57	0.18	9.29	102	0.9
DA2040C		0.23	0.45	75	0.14	8.48	65	1.3
DA2041C		0.29	0.59	60	0.23	12.00	49	0.5

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Project: DA

CERTIFICATE OF ANALYSIS WH17195226

Sample Description	Method	WEI-21	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43
	Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs
	Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.001	0.01	0.01	0.1	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05
DA2043C		0.80	0.013	0.03	0.79	18.8	10	210	0.46	0.07	0.31	0.07	23.6	8.6	19	4.65
DA2044C		0.55	0.021	0.04	0.87	15.8	10	160	0.45	0.08	0.28	0.16	22.1	7.7	22	2.94
DA2045C		0.52	0.006	0.06	0.94	22.6	10	220	0.69	0.10	0.32	0.15	26.9	13.5	13	5.88
DA2046C		0.64	0.018	0.06	0.89	146.5	10	290	0.81	0.27	0.29	0.12	21.9	20.3	15	7.95
DA3001C		0.37	0.002	0.02	0.73	6.1	10	100	0.43	0.05	0.05	0.04	42.3	5.0	7	1.65
DA3002C		0.31	<0.001	0.02	0.94	6.0	10	80	0.40	0.10	0.07	0.03	41.6	4.2	10	1.64
DA3003C		0.33	0.002	0.02	1.30	8.0	10	80	0.49	0.07	0.11	0.08	53.5	7.7	13	2.96
DA3004C		0.33	0.001	0.02	1.23	7.1	10	100	0.50	0.06	0.15	0.05	51.6	6.5	15	1.78
DA3005C		0.33	0.001	0.02	1.08	5.2	10	100	0.52	0.04	0.13	0.03	52.0	5.5	12	1.86
DA3006C		0.35	0.002	0.02	1.35	7.0	10	90	0.48	0.06	0.12	0.07	44.1	6.1	16	1.79
DA3007C		0.40	0.007	0.02	1.37	5.9	10	110	0.48	0.06	0.17	0.04	36.1	5.7	18	2.03
DA3008C		0.44	0.012	0.02	1.16	6.5	10	110	0.45	0.06	0.17	0.05	35.0	5.4	16	1.70
DA3009C		0.52	0.002	0.03	1.50	9.2	10	140	0.62	0.08	0.18	0.06	52.9	7.6	20	4.04

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793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

Finalized Date: 22-OCT-2017
Account: PRIGLE

Project: DA

CERTIFICATE OF ANALYSIS WH17195226

Sample Description	Method / Analyte / Units / LOR	AuME-TL43 Cu ppm 0.2	AuME-TL43 Fe % 0.01	AuME-TL43 Ga ppm 0.05	AuME-TL43 Ge ppm 0.05	AuME-TL43 Hf ppm 0.02	AuME-TL43 Hg ppm 0.01	AuME-TL43 In ppm 0.005	AuME-TL43 K % 0.01	AuME-TL43 La ppm 0.2	AuME-TL43 Li ppm 0.1	AuME-TL43 Mg % 0.01	AuME-TL43 Mn ppm 5	AuME-TL43 Mo ppm 0.05	AuME-TL43 Na % 0.01	AuME-TL43 Nb ppm 0.05
DA2043C		16.5	3.10	3.10	<0.05	0.03	0.04	0.025	0.16	10.9	4.1	0.27	563	0.57	0.05	0.25
DA2044C		14.7	2.96	3.21	<0.05	0.03	0.08	0.023	0.15	10.5	4.8	0.25	427	0.64	0.05	0.39
DA2045C		36.3	4.06	3.60	0.05	0.03	0.08	0.036	0.23	11.4	4.5	0.28	967	0.64	0.05	0.20
DA2046C		39.4	4.78	3.27	0.05	0.03	0.09	0.037	0.26	9.0	3.5	0.26	820	0.80	0.02	0.17
DA3001C		9.9	1.98	2.47	<0.05	0.02	2.21	0.017	0.17	19.4	2.5	0.07	526	0.53	0.03	0.12
DA3002C		7.5	1.88	3.03	<0.05	0.02	0.42	0.019	0.17	19.8	4.0	0.12	343	0.42	0.04	0.24
DA3003C		12.1	2.61	4.26	0.06	0.03	0.67	0.020	0.21	25.5	6.0	0.17	527	0.83	0.05	0.48
DA3004C		12.6	2.31	3.64	0.05	0.04	0.92	0.017	0.18	22.5	6.0	0.22	461	0.68	0.05	0.36
DA3005C		9.5	2.18	3.33	0.05	0.03	0.81	0.021	0.20	23.5	4.0	0.15	416	0.60	0.05	0.28
DA3006C		12.8	2.15	3.95	<0.05	0.03	1.05	0.017	0.18	20.9	6.4	0.21	355	0.62	0.04	0.46
DA3007C		12.5	2.09	4.03	<0.05	0.04	0.66	0.017	0.17	15.9	6.3	0.25	359	0.58	0.06	0.36
DA3008C		12.2	2.08	3.50	<0.05	0.03	0.43	0.016	0.15	15.6	6.2	0.25	342	0.53	0.04	0.56
DA3009C		13.3	2.53	4.84	0.05	0.03	1.56	0.022	0.20	25.2	7.6	0.29	405	0.65	0.04	0.40

***** See Appendix Page for comments regarding this certificate *****

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Sample Description	Method Analyte Units LOR	AuME-TL43 Ni ppm 0.2	AuME-TL43 P ppm 10	AuME-TL43 Pb ppm 0.2	AuME-TL43 Rb ppm 0.1	AuME-TL43 Re ppm 0.001	AuME-TL43 S % 0.01	AuME-TL43 Sb ppm 0.05	AuME-TL43 Sc ppm 0.1	AuME-TL43 Se ppm 0.2	AuME-TL43 Sn ppm 0.2	AuME-TL43 Sr ppm 0.2	AuME-TL43 Ta ppm 0.01	AuME-TL43 Te ppm 0.01	AuME-TL43 Th ppm 0.2	AuME-TL43 Ti % 0.005
DA2043C		10.4	480	5.3	11.3	<0.001	<0.01	2.09	5.6	0.2	0.6	20.1	<0.01	0.02	3.2	0.041
DA2044C		12.3	280	6.1	9.2	<0.001	<0.01	2.29	4.9	<0.2	0.6	22.0	<0.01	0.02	3.1	0.035
DA2045C		9.4	630	7.3	14.6	<0.001	<0.01	4.57	9.0	0.2	0.5	22.3	<0.01	0.04	3.0	0.035
DA2046C		13.6	650	9.2	17.8	<0.001	<0.01	8.79	11.9	0.2	0.4	17.6	<0.01	0.10	2.3	0.028
DA3001C		3.2	140	4.6	13.7	<0.001	<0.01	5.17	2.4	<0.2	0.8	10.5	<0.01	0.01	10.8	0.011
DA3002C		4.8	130	5.4	14.5	<0.001	<0.01	2.13	2.5	<0.2	0.8	12.0	<0.01	<0.01	10.2	0.020
DA3003C		6.7	260	6.5	21.2	<0.001	<0.01	90.8	3.3	<0.2	1.1	15.0	<0.01	0.01	12.4	0.031
DA3004C		8.6	210	5.6	15.0	<0.001	<0.01	31.2	3.3	<0.2	0.8	17.7	<0.01	0.01	12.9	0.042
DA3005C		5.6	190	5.6	16.3	<0.001	<0.01	43.9	2.8	<0.2	0.9	17.0	<0.01	<0.01	11.4	0.028
DA3006C		9.7	180	5.6	16.6	<0.001	<0.01	116.0	3.2	<0.2	0.9	15.4	<0.01	0.01	10.5	0.039
DA3007C		9.9	170	5.9	15.3	<0.001	<0.01	60.6	3.2	<0.2	0.9	22.7	<0.01	0.02	9.0	0.050
DA3008C		9.8	250	6.2	13.5	<0.001	<0.01	23.3	3.0	<0.2	0.9	16.9	<0.01	0.01	8.1	0.045
DA3009C		11.5	200	15.6	20.0	<0.001	<0.01	30.1	4.3	0.2	1.1	20.1	<0.01	0.01	10.5	0.051

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Project: DA

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Sample Description	Method / Analyte / Units / LOR	AuME-TL43 Tl ppm 0.02	AuME-TL43 U ppm 0.05	AuME-TL43 V ppm 1	AuME-TL43 W ppm 0.05	AuME-TL43 Y ppm 0.05	AuME-TL43 Zn ppm 2	AuME-TL43 Zr ppm 0.5
DA2043C		0.28	0.50	59	0.24	7.12	47	1.3
DA2044C		0.13	0.49	53	0.20	5.31	43	1.0
DA2045C		0.22	0.55	70	1.55	7.79	69	1.3
DA2046C		0.20	0.52	79	0.16	7.17	65	1.3
DA3001C		0.11	1.97	15	0.22	10.95	42	0.8
DA3002C		0.11	1.46	20	0.16	10.05	43	0.8
DA3003C		0.16	2.19	30	0.13	11.70	50	1.2
DA3004C		0.15	2.23	29	0.16	9.47	40	1.9
DA3005C		0.14	2.36	24	0.19	11.10	37	0.8
DA3006C		0.14	2.05	28	0.13	8.97	36	1.2
DA3007C		0.14	1.56	31	0.13	7.24	35	1.8
DA3008C		0.13	1.41	30	0.20	6.94	36	1.5
DA3009C		0.26	2.10	37	0.30	10.90	50	1.1

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CERTIFICATE OF ANALYSIS WH17195226

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method:	CRU-31	CRU-QC	LOG-22	PUL-32
	PUL-QC	SPL-21	WEI-21	

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:	AuME-TL43

Appendix 7

B-Horizon Soil and Stream Sediment Analytical Results

ALS Canada Ltd.

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Finalized Date: 2-OCT-2017
Account: PRIGLE

CERTIFICATE WH17195229

Project: DA

This report is for 48 Soil samples submitted to our lab in Whitehorse, YT, Canada on 12-SEP-2017.

The following have access to data associated with this certificate:

GLEN PRIOR		

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SCR-41	Screen to -180um and save both

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
AuME-TL43	25g Trace Au + Multi Element PKG	ICP-MS

To: GLEN PRIOR
ATTN: GLEN PRIOR
793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature:
Colin Ramshaw, Vancouver Laboratory Manager

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CERTIFICATE OF ANALYSIS WH17195229

Sample Description	Method / Analyte / Units / LOR	WEI-21 Recvd Wt. kg 0.02	AuME-TL43 Au ppm 0.001	AuME-TL43 Ag ppm 0.01	AuME-TL43 Al % 0.01	AuME-TL43 As ppm 0.1	AuME-TL43 B ppm 10	AuME-TL43 Ba ppm 10	AuME-TL43 Be ppm 0.05	AuME-TL43 Bi ppm 0.01	AuME-TL43 Ca % 0.01	AuME-TL43 Cd ppm 0.01	AuME-TL43 Ce ppm 0.02	AuME-TL43 Co ppm 0.1	AuME-TL43 Cr ppm 1	AuME-TL43 Cs ppm 0.05
DA2004B		0.34	<0.001	0.18	1.74	17.2	10	140	0.35	0.17	0.14	0.45	17.95	10.0	42	1.96
DA2005B		0.39	0.006	0.09	1.24	29.9	<10	140	0.40	0.09	0.18	0.33	20.0	7.6	46	2.18
DA2007B		0.39	<0.001	0.16	1.53	10.2	<10	120	0.34	0.13	0.13	0.55	13.05	6.9	26	0.67
DA2008B		0.38	0.001	0.08	1.40	69.4	10	150	0.46	0.06	0.27	0.39	30.1	12.9	82	3.04
DA2009B		0.47	0.006	0.19	0.96	338	10	160	0.92	0.08	0.36	0.45	49.2	15.7	51	6.44
DA2010B		0.37	0.007	0.25	2.50	71.5	10	180	0.76	0.16	0.21	0.19	26.9	14.1	60	2.52
DA2011B		0.41	0.001	0.05	1.26	30.5	<10	120	0.23	0.08	0.14	0.22	17.55	7.7	46	1.44
DA2012B		0.56	0.012	0.17	1.21	30.8	<10	100	0.30	0.12	0.14	0.14	19.30	6.2	32	1.28
DA2013B		0.54	0.001	0.08	1.06	18.5	<10	130	0.24	0.09	0.18	0.13	16.25	6.3	34	1.62
DA2014B		0.51	0.001	0.16	1.25	15.7	<10	210	0.39	0.06	0.23	0.05	18.45	7.6	47	1.91
DA2015B		0.38	0.015	0.06	1.72	19.0	<10	170	0.46	0.11	0.16	0.13	19.50	13.1	74	2.40
DA2016B		0.42	0.001	0.04	2.10	12.2	<10	380	0.50	0.11	0.22	0.07	24.8	12.0	95	3.04
DA2017B		0.36	0.013	0.03	1.39	20.2	<10	150	0.38	0.14	0.11	0.09	18.95	10.4	61	1.90
DA2018B		0.26	0.003	0.03	1.23	7.1	<10	80	0.19	0.12	0.10	0.12	12.85	5.0	22	0.75
DA2019B		0.28	0.001	0.03	0.71	5.5	<10	70	0.12	0.15	0.10	0.13	12.80	3.8	19	0.68
DA2020B		0.38	0.041	0.04	0.71	7.5	<10	140	0.20	0.07	0.22	0.05	22.0	4.2	21	0.84
DA2021B		0.42	0.001	0.01	0.77	6.1	<10	90	0.17	0.07	0.18	0.05	12.70	3.7	17	1.04
DA2022B		0.51	0.005	0.02	0.68	5.5	<10	150	0.17	0.08	0.25	0.04	15.45	5.9	13	1.57
DA2023B		0.39	0.029	0.04	1.08	6.8	<10	190	0.32	0.06	0.32	0.04	24.0	5.3	27	5.28
DA2024B		0.39	0.019	0.02	0.62	4.4	<10	120	0.22	0.08	0.24	0.03	19.55	4.5	15	1.67
DA2025B		0.47	0.009	0.04	0.90	7.1	<10	200	0.27	0.06	0.31	0.05	17.75	3.9	23	4.37
DA2026B		0.56	0.036	0.02	0.64	2.2	<10	110	0.11	0.05	0.23	0.04	13.60	2.5	12	0.84
DA2027B		0.43	0.001	0.13	1.71	105.5	<10	280	0.69	0.13	0.28	0.50	28.3	16.7	69	5.69
DA2028B		0.30	0.001	0.12	2.10	37.0	10	450	0.60	0.15	0.34	0.31	37.4	14.5	89	8.69
DA2029B		0.39	0.002	0.04	1.54	149.0	<10	210	0.70	0.16	0.20	0.33	24.2	16.4	55	5.01
DA2030B		0.43	0.001	0.09	1.57	68.0	<10	220	0.52	0.15	0.19	0.29	20.5	12.0	48	2.91
DA2031B		0.29	0.003	0.65	2.27	50.2	<10	260	0.81	0.25	0.16	0.47	17.60	11.4	44	2.46
DA2032B		0.31	0.010	0.02	1.03	6.6	<10	190	0.18	0.10	0.24	0.05	16.35	6.0	25	2.20
DA2033B		0.37	0.005	0.02	1.26	7.5	<10	210	0.38	0.09	0.30	0.05	20.1	7.1	27	3.37
DA2035B		0.42	0.003	0.02	1.24	8.8	<10	180	0.32	0.11	0.36	0.03	19.55	6.7	25	2.76
DA2043B		0.48	0.033	0.04	0.80	9.7	<10	170	0.30	0.08	0.27	0.05	27.0	6.7	28	4.18
DA2046B		0.49	0.017	0.04	0.79	13.8	<10	150	0.29	0.08	0.36	0.07	19.60	7.3	17	3.38
DA5001		0.45	0.004	0.10	1.03	4.9	<10	270	0.37	0.07	0.46	0.24	36.0	9.3	16	1.56
DA5002		0.34	0.002	0.13	1.11	5.6	<10	490	0.61	0.12	0.53	0.41	60.7	6.6	13	4.46
DA5003		0.59	0.011	0.10	1.00	3.5	<10	170	0.32	0.07	0.42	0.17	34.2	5.9	16	1.53
DA5004		0.57	0.004	0.06	0.85	4.3	<10	170	0.29	0.06	0.36	0.12	31.7	7.0	17	0.61
DA5005		0.57	0.010	0.08	0.92	2.6	10	140	0.19	0.05	0.43	0.17	26.3	5.9	13	1.57
DA5006		0.62	0.006	0.13	0.97	3.4	10	210	0.31	0.08	0.43	0.14	40.1	4.5	12	3.23
DA5007		0.42	0.009	0.17	1.21	5.3	10	540	0.62	0.15	0.54	0.26	63.3	5.7	15	4.59
DA3001B		0.24	0.001	0.04	1.80	9.2	10	140	0.34	0.17	0.15	0.08	15.00	9.4	32	1.33

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Finalized Date: 2-OCT-2017
Account: PRIGLE

Project: DA

CERTIFICATE OF ANALYSIS WH17195229

Sample Description	Method / Analyte / Units / LOR	AuME-TL43 Cu ppm 0.2	AuME-TL43 Fe % 0.01	AuME-TL43 Ga ppm 0.05	AuME-TL43 Ge ppm 0.05	AuME-TL43 Hf ppm 0.02	AuME-TL43 Hg ppm 0.01	AuME-TL43 In ppm 0.005	AuME-TL43 K % 0.01	AuME-TL43 La ppm 0.2	AuME-TL43 Li ppm 0.1	AuME-TL43 Mg % 0.01	AuME-TL43 Mn ppm 5	AuME-TL43 Mo ppm 0.05	AuME-TL43 Na % 0.01	AuME-TL43 Nb ppm 0.05
DA2004B		20.7	3.17	8.49	<0.05	<0.02	0.01	0.029	0.10	9.5	15.2	0.50	359	2.16	0.02	1.02
DA2005B		28.5	2.95	6.26	<0.05	0.03	0.02	0.029	0.20	10.8	8.3	0.46	232	2.54	0.02	0.78
DA2007B		12.6	2.44	5.02	<0.05	0.03	0.01	0.021	0.05	6.8	9.5	0.37	208	1.32	0.01	0.75
DA2008B		47.7	4.27	5.83	0.06	0.02	0.02	0.047	0.27	15.3	7.9	0.78	467	3.69	0.01	0.64
DA2009B		69.2	5.64	4.10	0.08	0.02	0.05	0.051	0.21	24.5	4.9	0.38	560	5.07	0.01	0.37
DA2010B		34.7	4.05	6.85	<0.05	0.07	0.06	0.041	0.21	13.7	15.2	0.66	431	2.42	0.01	0.97
DA2011B		21.5	2.74	6.25	<0.05	0.02	0.01	0.023	0.20	9.4	9.0	0.58	333	1.80	0.01	0.78
DA2012B		15.4	2.66	5.38	<0.05	0.02	0.02	0.019	0.11	9.9	10.4	0.40	222	1.15	0.01	0.66
DA2013B		15.4	2.33	4.97	<0.05	0.02	0.02	0.019	0.15	8.3	9.1	0.47	267	1.57	0.01	0.86
DA2014B		25.4	2.86	4.69	0.05	<0.02	0.02	0.024	0.26	10.1	9.3	0.59	226	0.99	0.01	0.62
DA2015B		36.0	3.79	7.59	0.05	0.04	0.01	0.031	0.41	9.8	17.3	0.87	399	1.13	0.01	0.68
DA2016B		26.8	4.04	10.10	0.08	0.03	0.01	0.035	0.44	14.0	16.5	1.28	324	0.85	0.01	0.48
DA2017B		32.6	3.49	7.31	0.05	0.04	0.01	0.025	0.27	9.5	9.1	0.71	242	0.89	0.01	0.62
DA2018B		9.4	2.41	5.42	<0.05	<0.02	0.01	0.015	0.03	6.7	10.3	0.24	199	0.91	0.01	0.64
DA2019B		8.0	2.17	5.86	<0.05	<0.02	0.01	0.012	0.05	6.6	5.1	0.17	180	1.00	0.01	0.50
DA2020B		8.0	2.41	3.13	<0.05	<0.02	0.01	0.014	0.05	11.8	7.8	0.27	185	0.40	0.01	0.52
DA2021B		6.7	1.78	3.85	<0.05	<0.02	0.01	0.013	0.05	6.6	7.2	0.29	137	0.56	0.01	0.53
DA2022B		8.5	1.52	2.68	<0.05	<0.02	0.02	0.014	0.06	8.4	5.5	0.25	280	0.36	0.01	0.46
DA2023B		10.9	2.46	4.55	0.05	0.02	0.03	0.025	0.17	14.1	10.9	0.47	213	0.44	0.01	0.75
DA2024B		6.3	1.66	2.51	<0.05	<0.02	0.02	0.013	0.05	10.2	5.7	0.24	222	0.32	0.01	0.37
DA2025B		11.1	1.82	3.36	<0.05	<0.02	0.08	0.019	0.10	9.8	8.1	0.34	152	0.36	0.01	0.49
DA2026B		5.7	0.84	2.41	<0.05	<0.02	0.02	0.009	0.05	7.6	7.0	0.25	99	0.16	0.01	0.41
DA2027B		41.4	4.64	7.49	0.13	0.02	0.02	0.064	0.29	13.1	12.7	0.81	899	2.65	0.02	1.35
DA2028B		48.9	4.71	9.39	0.52	0.04	0.02	0.057	0.51	18.2	19.0	1.22	485	1.76	0.01	2.09
DA2029B		40.9	4.29	6.18	0.39	0.03	0.01	0.038	0.39	12.2	16.0	0.77	396	2.98	0.01	0.83
DA2030B		27.1	3.27	6.50	0.05	0.02	0.02	0.030	0.36	10.4	16.9	0.78	366	2.00	0.01	1.12
DA2031B		29.8	3.66	6.62	<0.05	0.05	0.06	0.037	0.11	9.1	14.5	0.49	392	2.40	0.01	0.92
DA2032B		7.7	2.04	4.82	<0.05	0.03	0.01	0.016	0.10	8.4	13.3	0.43	216	0.61	0.01	0.80
DA2033B		10.5	2.38	4.89	<0.05	0.02	0.03	0.023	0.10	9.7	17.0	0.48	282	0.55	0.01	0.65
DA2035B		11.6	2.35	4.92	<0.05	<0.02	0.02	0.019	0.12	10.6	15.7	0.45	271	0.58	0.01	0.72
DA2043B		10.9	3.40	3.78	0.06	0.02	0.02	0.019	0.10	15.3	8.8	0.31	233	0.45	0.01	0.48
DA2046B		13.7	2.41	3.12	0.05	0.02	0.03	0.019	0.13	9.8	9.0	0.35	557	0.40	0.01	0.48
DA5001		13.2	1.74	3.28	0.05	0.02	0.10	0.017	0.06	22.5	9.5	0.33	1960	0.35	0.02	0.45
DA5002		12.2	1.85	3.89	0.11	0.03	0.18	0.021	0.10	53.8	9.0	0.23	853	0.41	0.02	0.49
DA5003		12.1	1.51	3.28	0.05	0.02	0.08	0.016	0.05	20.4	9.3	0.34	226	0.30	0.02	0.57
DA5004		11.7	1.61	2.86	0.06	0.02	0.05	0.014	0.04	21.2	6.0	0.22	404	0.33	0.02	0.47
DA5005		11.2	1.60	3.08	0.05	<0.02	0.05	0.013	0.05	13.9	7.2	0.38	248	0.29	0.05	0.46
DA5006		11.4	1.26	2.88	0.06	<0.02	0.12	0.013	0.07	28.2	9.1	0.27	209	0.30	0.05	0.46
DA5007		15.6	1.90	3.96	0.11	0.03	0.19	0.024	0.11	60.0	7.3	0.26	506	0.43	0.04	0.61
DA3001B		16.4	3.22	6.65	<0.05	0.09	0.05	0.026	0.06	7.3	14.3	0.45	338	1.04	0.01	1.27

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To: GLEN PRIOR
793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

Finalized Date: 2-OCT-2017
Account: PRIGLE

Project: DA

CERTIFICATE OF ANALYSIS WH17195229

Sample Description	Method / Analyte / Units / LOR	AuME-TL43 Ni ppm 0.2	AuME-TL43 P ppm 10	AuME-TL43 Pb ppm 0.2	AuME-TL43 Rb ppm 0.1	AuME-TL43 Re ppm 0.001	AuME-TL43 S % 0.01	AuME-TL43 Sb ppm 0.05	AuME-TL43 Sc ppm 0.1	AuME-TL43 Se ppm 0.2	AuME-TL43 Sn ppm 0.2	AuME-TL43 Sr ppm 0.2	AuME-TL43 Ta ppm 0.01	AuME-TL43 Te ppm 0.01	AuME-TL43 Th ppm 0.2	AuME-TL43 Ti % 0.005
DA2004B		22.6	470	8.2	21.3	<0.001	0.03	0.53	4.3	0.4	0.6	17.9	<0.01	0.04	2.0	0.090
DA2005B		33.1	670	6.3	18.4	<0.001	0.05	0.84	5.8	0.6	0.5	18.4	<0.01	0.04	3.0	0.075
DA2007B		15.3	410	8.1	8.5	<0.001	0.01	0.46	2.7	0.3	0.5	13.9	<0.01	0.04	1.7	0.036
DA2008B		56.7	1020	8.6	23.8	<0.001	0.04	3.28	10.2	1.2	0.5	16.8	<0.01	0.08	4.0	0.123
DA2009B		68.5	1440	19.7	18.9	<0.001	0.01	16.05	11.5	1.9	0.4	22.9	<0.01	0.13	5.6	0.049
DA2010B		44.9	740	9.8	19.9	<0.001	0.03	12.50	7.8	0.6	0.6	24.1	<0.01	0.07	4.0	0.073
DA2011B		25.2	470	5.9	18.6	<0.001	0.05	5.53	5.3	0.5	0.5	17.7	<0.01	0.05	2.2	0.099
DA2012B		18.6	390	7.2	14.4	<0.001	0.01	1.68	4.0	0.2	0.5	12.8	<0.01	0.03	2.5	0.067
DA2013B		20.4	300	6.9	19.0	<0.001	0.01	0.66	3.7	0.3	0.5	17.7	<0.01	0.04	1.8	0.084
DA2014B		33.0	520	4.3	19.5	<0.001	0.01	0.70	6.1	0.3	0.5	18.3	<0.01	0.03	2.0	0.085
DA2015B		59.4	550	6.0	28.2	<0.001	0.02	0.49	7.7	0.4	0.8	12.6	<0.01	0.05	2.5	0.121
DA2016B		63.0	400	5.3	34.8	<0.001	0.01	0.34	11.4	0.3	0.9	18.2	<0.01	0.06	2.8	0.177
DA2017B		49.2	360	5.1	22.8	<0.001	0.01	0.54	6.5	0.3	0.7	13.4	<0.01	0.06	2.7	0.114
DA2018B		11.4	350	6.4	6.5	<0.001	0.01	0.52	2.0	<0.2	0.5	11.1	<0.01	0.03	1.2	0.042
DA2019B		9.5	310	5.6	10.6	<0.001	0.01	0.54	1.6	0.2	0.6	9.7	<0.01	0.03	0.6	0.060
DA2020B		9.6	240	4.1	6.0	<0.001	0.01	0.45	2.6	<0.2	0.3	13.1	<0.01	0.02	2.5	0.047
DA2021B		8.5	240	4.3	7.6	<0.001	<0.01	0.46	2.4	<0.2	0.5	10.1	<0.01	0.02	1.6	0.047
DA2022B		7.5	360	3.8	7.3	<0.001	0.01	0.47	2.4	<0.2	0.3	13.5	<0.01	0.01	1.3	0.033
DA2023B		12.2	440	4.7	18.9	<0.001	0.01	0.68	5.0	0.2	0.5	16.7	<0.01	0.01	3.0	0.069
DA2024B		7.8	380	3.6	5.4	<0.001	0.01	0.50	2.4	<0.2	0.3	12.8	<0.01	0.01	2.2	0.033
DA2025B		11.0	360	4.4	10.7	<0.001	0.01	0.90	3.4	0.2	0.3	17.2	<0.01	0.01	1.7	0.034
DA2026B		6.7	320	3.0	5.7	<0.001	0.01	0.25	1.8	<0.2	0.2	13.3	<0.01	<0.01	1.5	0.034
DA2027B		54.9	530	11.2	37.5	<0.001	0.02	1.86	11.8	0.6	1.1	24.5	<0.01	0.06	2.8	0.115
DA2028B		61.8	460	7.3	65.1	<0.001	0.02	0.60	14.7	0.7	1.4	29.0	<0.01	0.05	4.8	0.178
DA2029B		61.4	480	13.6	38.1	<0.001	0.02	1.02	7.8	0.5	0.8	16.5	<0.01	0.07	3.2	0.119
DA2030B		39.0	430	9.9	33.3	<0.001	0.03	0.69	6.4	0.5	0.8	17.5	<0.01	0.05	2.5	0.124
DA2031B		35.1	330	14.0	17.2	<0.001	0.01	1.22	6.2	0.3	0.7	15.6	<0.01	0.05	2.9	0.029
DA2032B		13.3	190	5.3	17.9	<0.001	<0.01	0.39	3.6	<0.2	0.5	16.6	<0.01	0.02	2.0	0.083
DA2033B		15.6	270	5.4	13.5	<0.001	0.01	0.65	5.0	<0.2	0.5	17.5	<0.01	0.02	2.2	0.068
DA2035B		12.8	290	5.6	13.6	<0.001	0.01	0.59	4.6	<0.2	0.5	21.9	<0.01	0.03	2.1	0.052
DA2043B		12.1	220	4.5	11.3	<0.001	0.01	0.79	5.7	<0.2	0.4	16.4	<0.01	0.02	3.2	0.050
DA2046B		10.3	450	4.2	13.1	<0.001	0.01	1.59	5.8	<0.2	0.3	21.5	<0.01	0.03	2.3	0.043
DA5001		10.2	650	5.7	8.6	<0.001	0.04	0.32	4.3	0.3	0.3	39.9	<0.01	0.02	2.2	0.028
DA5002		8.6	760	10.3	14.6	0.001	0.03	0.67	4.5	0.3	0.5	34.9	<0.01	0.02	3.5	0.020
DA5003		9.2	690	5.5	8.3	0.001	0.04	0.29	4.2	0.3	0.4	31.3	<0.01	0.02	2.6	0.035
DA5004		9.6	700	4.1	6.0	<0.001	0.03	0.33	3.2	0.2	0.3	27.0	<0.01	0.01	1.6	0.028
DA5005		7.0	790	5.0	7.1	<0.001	0.05	0.20	3.4	0.2	0.3	27.2	<0.01	0.01	2.3	0.052
DA5006		6.4	530	6.0	11.3	<0.001	0.07	0.30	2.5	<0.2	0.4	44.8	<0.01	0.01	2.0	0.016
DA5007		8.0	760	14.3	15.5	<0.001	0.06	0.80	4.2	0.2	0.6	35.6	<0.01	0.02	4.6	0.014
DA3001B		14.8	320	9.4	12.3	<0.001	<0.01	0.92	2.8	0.2	0.8	16.1	<0.01	0.04	2.7	0.070

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To: GLEN PRIOR
793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

Finalized Date: 2-OCT-2017
Account: PRIGLE

Project: DA

CERTIFICATE OF ANALYSIS WH17195229

Sample Description	Method Analyte Units LOR	AuME-TL43 Tl ppm 0.02	AuME-TL43 U ppm 0.05	AuME-TL43 V ppm 1	AuME-TL43 W ppm 0.05	AuME-TL43 Y ppm 0.05	AuME-TL43 Zn ppm 2	AuME-TL43 Zr ppm 0.5
DA2004B		0.16	0.45	97	0.21	3.06	71	0.7
DA2005B		0.19	0.69	107	0.36	6.52	91	1.5
DA2007B		0.08	0.38	60	0.19	2.27	65	1.0
DA2008B		0.31	0.86	145	0.12	11.15	163	0.8
DA2009B		0.24	1.02	121	0.14	15.65	216	1.1
DA2010B		0.21	0.68	103	0.19	6.98	100	2.7
DA2011B		0.14	0.42	101	0.16	3.82	73	0.7
DA2012B		0.11	0.42	72	0.24	4.06	50	0.7
DA2013B		0.13	0.35	70	0.16	3.49	49	0.6
DA2014B		0.16	0.45	77	0.12	5.48	60	0.5
DA2015B		0.17	0.48	104	0.18	5.21	72	1.7
DA2016B		0.17	0.45	115	0.12	5.77	50	1.6
DA2017B		0.13	0.44	94	0.20	3.63	55	1.6
DA2018B		0.07	0.28	62	0.15	1.95	37	<0.5
DA2019B		0.07	0.26	65	0.17	1.75	57	<0.5
DA2020B		0.04	0.43	64	0.26	4.52	31	<0.5
DA2021B		0.06	0.23	46	0.19	2.33	29	0.6
DA2022B		0.06	0.25	34	0.13	4.32	27	<0.5
DA2023B		0.16	0.41	58	0.18	8.17	48	0.9
DA2024B		0.05	0.31	39	0.20	4.06	24	<0.5
DA2025B		0.13	0.40	42	0.16	4.60	35	<0.5
DA2026B		0.04	0.23	21	0.14	2.76	20	<0.5
DA2027B		0.80	0.82	106	0.14	8.48	167	0.9
DA2028B		0.40	0.98	118	0.16	12.40	105	1.5
DA2029B		0.41	0.60	87	0.16	5.49	150	1.7
DA2030B		0.25	0.51	80	0.21	4.55	93	0.9
DA2031B		0.24	0.66	71	0.14	4.12	114	2.2
DA2032B		0.09	0.29	57	0.21	3.37	38	1.3
DA2033B		0.11	0.36	56	0.18	4.40	46	0.6
DA2035B		0.13	0.38	57	0.21	4.61	39	0.5
DA2043B		0.17	0.49	89	0.45	6.88	35	<0.5
DA2046B		0.10	0.41	55	0.25	4.74	39	0.6
DA5001		0.15	2.51	41	0.10	12.35	44	<0.5
DA5002		0.25	2.54	36	0.19	27.5	56	<0.5
DA5003		0.11	2.11	41	0.23	10.55	41	<0.5
DA5004		0.06	0.70	36	0.17	11.90	34	0.5
DA5005		0.09	0.92	48	0.25	7.87	44	<0.5
DA5006		0.18	3.08	25	0.14	12.10	35	<0.5
DA5007		0.25	2.80	34	0.34	30.4	54	0.5
DA3001B		0.10	0.41	71	0.22	2.47	52	3.2

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To: GLEN PRIOR
793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

Finalized Date: 2-OCT-2017
Account: PRIGLE

Project: DA

CERTIFICATE OF ANALYSIS WH17195229

Sample Description	WEI-21	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43
Analyte	Recvd Wt.	Au	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Ce	Co	Cr	Cs
Units	kg	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
LOR	0.02	0.001	0.01	0.01	0.1	10	10	0.05	0.01	0.01	0.01	0.02	0.1	1	0.05
DA3002B	0.26	0.001	0.08	2.50	12.3	10	140	0.50	0.20	0.15	0.14	20.7	10.4	37	1.76
DA3003B	0.23	0.001	0.05	1.10	7.3	10	80	0.19	0.19	0.10	0.10	15.40	5.3	20	1.12
DA3004B	0.26	0.001	0.09	1.95	8.6	10	120	0.34	0.16	0.14	0.11	17.05	7.3	30	1.16
DA3005B	0.27	0.001	0.04	1.84	11.9	10	170	0.39	0.14	0.14	0.12	18.65	8.5	26	1.41
DA3006B	0.29	<0.001	0.03	1.55	12.7	<10	160	0.33	0.16	0.19	0.11	19.70	6.2	25	1.39
DA3007B	0.34	0.001	0.07	1.71	10.5	10	140	0.38	0.14	0.18	0.09	20.2	7.4	28	1.24
DA3008B	0.30	0.001	0.08	1.77	8.6	10	120	0.41	0.12	0.13	0.07	19.40	7.5	25	1.64
DA3009B	0.37	0.001	0.10	1.54	11.0	10	140	0.46	0.14	0.15	0.08	30.9	5.7	21	3.52

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Finalized Date: 2-OCT-2017
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CERTIFICATE OF ANALYSIS WH17195229

Sample Description	Method	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43
	Analyte	Cu	Fe	Ga	Ge	Hf	Hg	In	K	La	Li	Mg	Mn	Mo	Na	Nb
	Units	ppm	%	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm
	LOR	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05	0.01	0.05
DA3002B		16.7	3.53	7.16	<0.05	0.11	0.05	0.036	0.11	9.9	18.2	0.54	314	1.00	0.01	1.42
DA3003B		9.8	2.51	7.55	<0.05	0.03	0.02	0.016	0.05	7.9	7.4	0.21	339	1.18	0.01	0.99
DA3004B		15.9	2.92	6.71	<0.05	0.06	0.05	0.023	0.07	8.2	12.4	0.42	196	0.94	0.01	1.21
DA3005B		15.2	3.24	6.55	<0.05	0.07	0.08	0.027	0.08	8.7	16.8	0.43	239	0.90	0.01	1.35
DA3006B		19.4	3.32	7.78	<0.05	0.03	0.04	0.025	0.09	9.7	14.9	0.39	210	0.96	0.01	1.07
DA3007B		16.4	2.95	6.10	<0.05	0.05	0.04	0.024	0.07	9.8	17.0	0.43	203	0.78	0.01	0.82
DA3008B		13.9	2.60	5.39	<0.05	0.07	0.09	0.022	0.07	9.4	14.1	0.40	202	0.70	0.01	0.92
DA3009B		13.6	2.76	6.27	<0.05	<0.02	0.50	0.025	0.09	13.8	12.3	0.34	219	0.85	0.04	0.99

***** See Appendix Page for comments regarding this certificate *****

ALS Canada Ltd.

2103 Dollarton Hwy
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Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: GLEN PRIOR
793 BIRCH AVENUE
SHERWOOD PARK AB T8A 1X2

Finalized Date: 2-OCT-2017
Account: PRIGLE

Project: DA

CERTIFICATE OF ANALYSIS WH17195229

Sample Description	Method / Analyte / Units / LOR	AuME-TL43 Ni ppm 0.2	AuME-TL43 P ppm 10	AuME-TL43 Pb ppm 0.2	AuME-TL43 Rb ppm 0.1	AuME-TL43 Re ppm 0.001	AuME-TL43 S % 0.01	AuME-TL43 Sb ppm 0.05	AuME-TL43 Sc ppm 0.1	AuME-TL43 Se ppm 0.2	AuME-TL43 Sn ppm 0.2	AuME-TL43 Sr ppm 0.2	AuME-TL43 Ta ppm 0.01	AuME-TL43 Te ppm 0.01	AuME-TL43 Th ppm 0.2	AuME-TL43 Ti % 0.005
DA3002B		21.0	350	9.8	15.9	<0.001	0.01	1.04	4.2	0.3	0.7	15.8	<0.01	0.05	4.5	0.081
DA3003B		8.7	390	9.4	14.1	<0.001	<0.01	4.06	1.9	<0.2	0.8	10.2	<0.01	0.04	2.3	0.074
DA3004B		15.0	360	8.2	10.9	<0.001	<0.01	3.76	3.3	0.3	0.7	15.7	<0.01	0.04	2.9	0.069
DA3005B		15.2	330	7.5	13.1	<0.001	<0.01	20.9	3.1	0.2	0.7	18.3	<0.01	0.04	3.6	0.059
DA3006B		13.7	350	8.7	14.8	<0.001	<0.01	17.75	3.2	0.2	0.7	23.2	<0.01	0.04	3.5	0.064
DA3007B		15.8	340	8.0	13.9	<0.001	<0.01	9.25	3.3	0.2	0.6	19.7	<0.01	0.04	3.9	0.069
DA3008B		13.3	250	7.1	12.7	<0.001	<0.01	11.40	3.1	0.2	0.6	14.3	<0.01	0.03	3.9	0.060
DA3009B		11.0	320	20.6	14.2	<0.001	0.03	25.3	3.4	0.2	0.9	16.2	<0.01	0.03	3.5	0.040

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Sample Description	Method	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43	AuME-TL43
	Analyte	Tl	U	V	W	Y	Zn	Zr
	Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	LOR	0.02	0.05	1	0.05	0.05	2	0.5
DA3002B		0.13	0.58	69	0.25	3.93	68	3.7
DA3003B		0.10	0.37	68	0.18	2.08	36	1.4
DA3004B		0.10	0.48	66	0.22	3.16	48	2.3
DA3005B		0.10	0.62	63	0.28	3.34	46	2.6
DA3006B		0.11	0.60	67	0.22	3.43	47	1.6
DA3007B		0.10	0.51	60	0.21	4.09	45	2.0
DA3008B		0.10	0.56	54	0.23	3.61	43	2.6
DA3009B		0.17	1.07	55	0.39	7.51	56	<0.5

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CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Whitehorse located at 78 Mt. Sima Rd, Whitehorse, YT, Canada.

Applies to Method: LOG-22 SCR-41 WEI-21

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method: AuME-TL43

Appendix 8

Expenditures on LEE Claims

Note: Only costs applicable to claims LEE 1 to LEE 4 are included.

Expenditures	**Subtotal**
Rock and soil sampling: 5 days x $500/day	$2,500.00
Rock geochemical analyses: 25 samples x $27.00	$675.00
Sb assays: 16 samples x $10.00	$160.00
B-horizon soil geochemical analyses: 9 samples x $38.00	$342.00
C-horizon soil geochemical analyses: 9 samples x $46.00	$414.00
Report writing: 1 day x $500	$500.00
Daily Field Expenses: 5 days x $100/day	$500.00
Truck (4x4): 5 days x $50.00/day	$250.00
ATV: 5 days x $40.00/day	$200.00
Total	**$5,541.00**

Dates of field work on claims LEE 1 to LEE 4:

2017_August_25
2017_August_28
2017_August_29
2017_August_30
2017_August_31