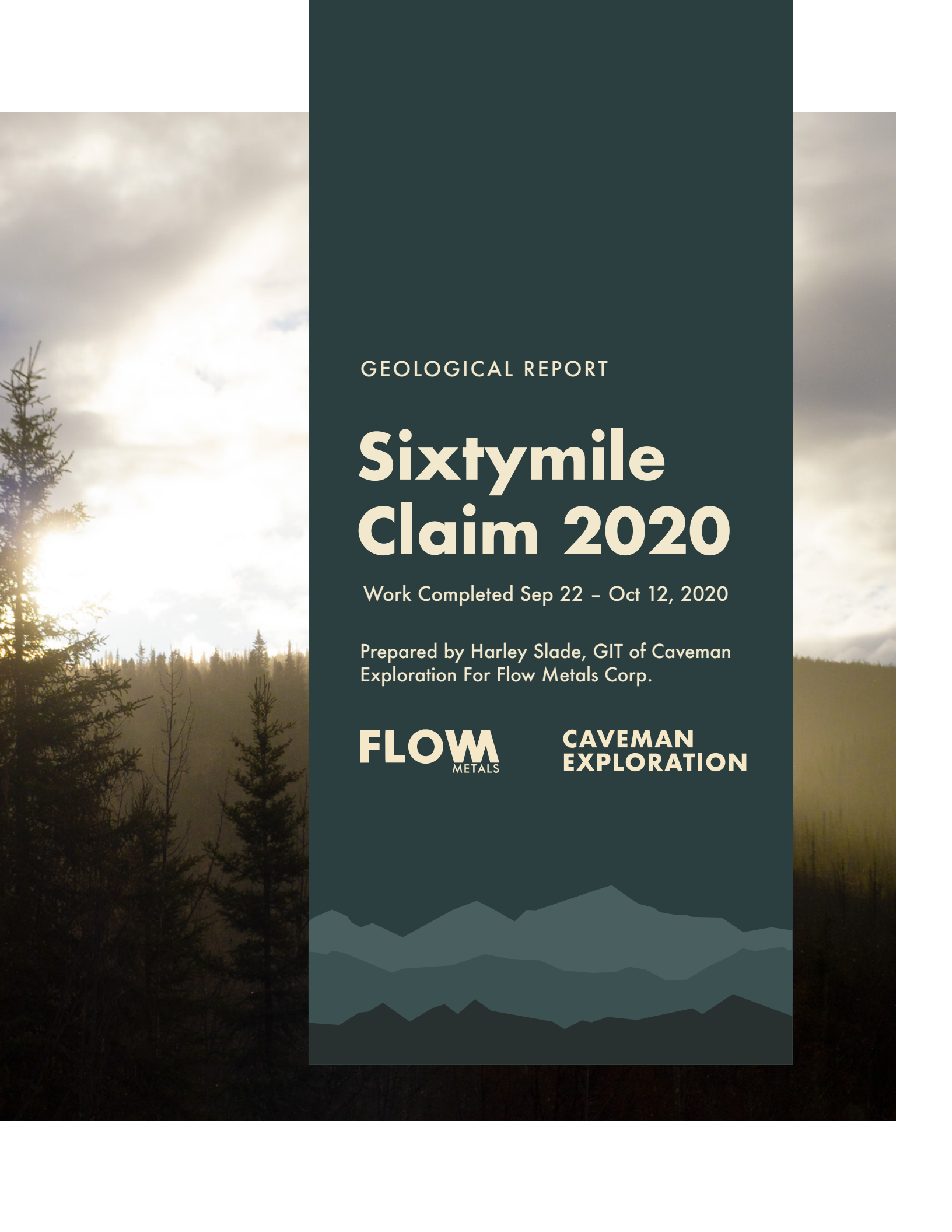




GEOLOGICAL REPORT

Sixtymile Claim 2020

Work Completed Sep 22 - Oct 12, 2020

Prepared by Harley Slade, GIT of Caveman
Exploration For Flow Metals Corp.

FLOW
METALS

**CAVEMAN
EXPLORATION**

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Summary

In 2020, Harley Slade of Caveman Exploration relogged 100m of historic core and mapped roughly 200m of trenches for Flow Metals Corp. The purpose was to gain an understanding of the controls on gold mineralization and build a framework for future targeting and gold exploration.

The 2020 core relogging program was conducted from September 22nd to October 12th. We photographed and evaluated eight drill holes from 2010 and 2011 for lithology, alteration, structure and mineralization. Historical core logging and assay results were checked and verified for validity. The highest gold intercepts were re-sampled with metallic screen analysis to assay for coarse-grained gold that would have been omitted by traditional fire assay. This had varying results but one sample returned 12.6g/ton gold, largely in the coarse grained fraction. This proves the importance of metallic screen assay for accurate gold assessment.

The structural data collected from trenching, RAB drilling and televising in 2020 is used in conjunction with the verified historical data to create a tentative structural framework for upper Glacier Creek and the Sixtymile Property in general.

Special attention was given to find potential correlations between gold mineralization and veining. A working hypothesis has been developed.

The most common rock types on the Sixtymile Property are quartz-biotite +/- graphite schist (Nasina) and quartz-muscovite schist (Klondike). The biotite schist is locally altered to chlorite/hematite and graphite schist. The predominant schistosity dips 20 degrees to the east and south-east but is locally deflected by faults. The deflections can be subtle but revealed and confirmed vergence of thrust faults

Gold is associated with two vein sets: D4 quartz, feldspar veins with kink folds, likely related to the thrust faulting event, and D5 vertical quartz, arsenopyrite (APY) veins associated with dextral strike-slip faults.

Historical geochemical results indicate a weak correlation of arsenic to gold (R2). This is corroborated by the occurrence of arsenopyrite veins directly underneath coarse and irregular placer deposits as well as gold in RAB proximal to large arsenic anomalies. Some placer nuggets also exhibit weathered sulphides and irregular shapes (figure 1).

Introduction

The Sixtymile property (the property) is located west of the Sixtymile river and encompasses a large block spanning north of glacier creek to south of bedrock creek. The region has been extensively mined for placer gold since the late 1800's and continues to produce gold to the present (Hulstein, 2012). The property was drilled in 2010 and 2011 by Radius Gold eight holes intercepting anomalous gold. Five diamond holes were drilled in the "Kex trench zone" (10-1,2,3 and 11-15,18) which was first drilled in 1988. The remaining three diamond holes targeted soil and geophysical anomalies on other parts of the claim to the north (11-19, 11-20) and west (10-04).

In 2019 Flow Metals Corp conducted a short preliminary mapping and sampling program that yielded a geological map. In 2020 Flow Metals returned to test a hypothesis that there could be a local bedrock source near the historic placer. A ground Mag/VLF grid was acquired and lineament analysis was conducted. Later that season 15 RAB holes were drilled to test if the lineaments or their contacts were gold bearing. The work re-logging and trenching was being conducted at the same time by Harley Slade with Caveman Exploration.

Most of the holes to date were drilled through greenschist to lower amphibolite facies metamorphic rocks of varying composition with minor intrusive rocks, faults and silica sinters encountered. There are multiple deformation events that took place that are preserved as fabrics and structures in the rocks. The property is also cut by multiple fault sets that create a network of parallel gulches and straight river valleys. These faults have veins associated with them and some have very high potential to host significant gold mineralization.

KLONDIKE SCHIST

- 95% quartz + muscovite +/- graphite
- Weathers bright orange
- Formed in Late Jurassic

NASINA BIOTITE SCHIST

- 95% quartz, biotite + graphite
- Commonly silicified
- Retrograde chlorite alteration
- Hosts most of the gold mineralization

NASINA INTRUSIVE

- Light grey foliated intrusive
- "Augen" texture porphyroclasts
- Euhedral to subhedral diss. APY

NASINA CHLORITE SCHIST

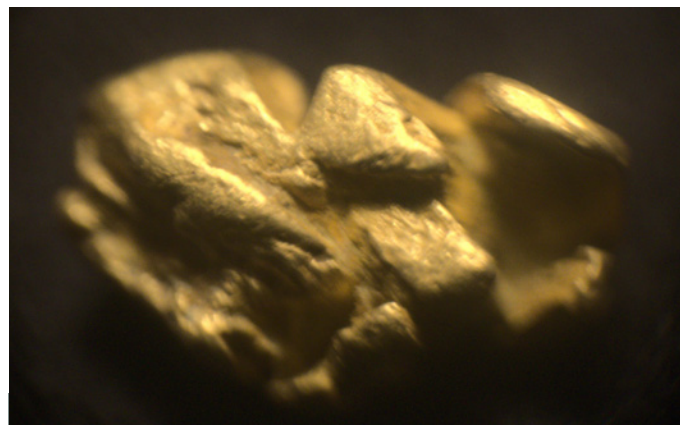
- Green schist, not much quartz
- Typically partially to fully hematized
- Very rare so far

CARMACKS VOLCANICS

- Green schist, not much quartz
- Typically partially to fully hematized
- Very rare so far

**Figure 1a**

Coarse delicate placer gold which suggests very limited river transport.

**Figure 1b**

Nugget showing remnant sulphide shape. Formed amongst sulphides that have since weathered away.

Project Geology

The property is in the northern Omineca belt and is dominated by amphibolite facies schists of the Yukon-Tanana terrane (YTT) with overlying minor Carmacks volcanics in the east. The two dominant rock packages are the Klondike schist and Nasina subterrane. Klondike schist is an orange weathering, muscovite quartz schist that has boudinaged quartz veins that can be up to a meter wide. This was formed in the early Triassic, late Jurassic (Metcalf et al. 1983). The Nasina subterrane contains a quartz biotite schist that is roughly 200 Ma old (Wheeler et al. 1988). Nasina also has minor felsic to intermediate intrusive rocks that are locally deformed to an augen schist. Carmacks volcanics are cretaceous andesites that overlie the schist (Clarke 1992). This volcanism related to the track of the Yellowstone Hotspot and is the most likely candidate for the silica sinter/epithermal style rocks found in the west of the claim (Hulstein, 2012).

Two fault sets are clearly visible in the trenches. The first is a series of 10 to 20 meter spaced orange, clay or

graphite-filled west-northwest verging thrust faults that run roughly parallel to the foliation. These thrust faults have been rotated in some areas giving an apparent northwest trending oblique-slip movement. They have the same fault gouge and vergence as the thrust faults so are likely coeval. The second set are east-west trending, dextral strike slip faults associated with the Sixtymile fault system.

The region has been extensively explored for placer and mined since the late 1800's with operations in production to this day. There have been significant placer discoveries on Miller and Glacier Creek with economic placer deposits recently discovered at Bedrock Creek. The gold is often coarse grained with delicate edges (Figure 1) that would be destroyed with any significant river transport. The gold sometimes has red chalky powder on the pieces or are encased in rusty concretions, which is further evidence of a local gold source for the placer deposits.

Scope of Work

100 meters of core was relogged and assessed for rock type, mineralization, veining, structures, alteration and relative timing. This was to gain a better understanding of the controls on mineralization in the region. The core was relogged and assayed to verify the historic core logs and assay results that were conducted by Radius Gold in 2010 and 2011. Over the work program three trenches were excavated exposing bedrock on the upper reaches of Glacier Creek. These were mapped, sampled and assessed for structures. Stereonet analysis indicated drag folding associated with the clay filled reverse faults and confirmed their vergence to the northwest.

Drill Core Observations

LITHOLOGY

Three dominant lithologies were encountered in the core, two of which are part of the Nasina Subterrane. The first is the Klondike Schist which is an orange/tan quartz muscovite schist (Figure 2) with large boudinaged quartz veins. This formed in the Early Jurassic to Late Triassic (Metcalf et al. 1983). The second is the Nasina biotite schist that formed in the Mezo Paleozoic. This unit is a blue-grey quartz biotite schist (Figure 3) that is often silicified and graphitic (Allan, 2011). The third is a light grey quartz-orthoclase phyrlic, lightly foliated intrusive (Figure 4) that is locally sheared/psuedomylonitic to produce a schist with augen feldspar texture (Figure 5). Significant silica sinter was intercepted that exhibits bladed euhedral quartz-lined vugs, sometimes filled with kaolinite (Figure 6). These sinters are locally brecciated with a pyrite/apy matrix.

Other lithologies that were intercepted include a green chlorite-hematite altered schist (Figure 7), sericite-quartz hydrothermal breccia (Figure 8), and fault gouge (Figure 9). More information can be found in Appendix A - Rock Library.



Figure 3

Nasina biotite schist: red-brown weathering, bluish grey, graphitic biotite schist, often partially (below) to fully silicified (above) with retrograde metamorphosis to chlorite (greenish)

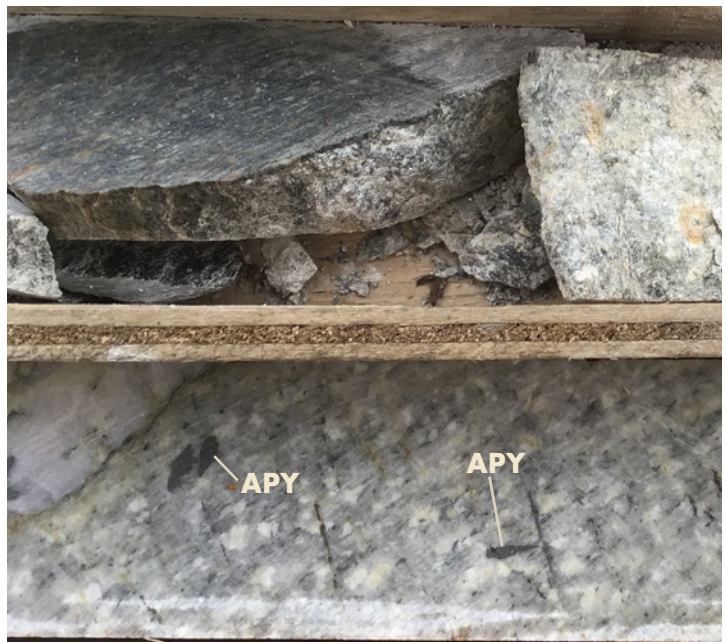


Figure 4

Nasina int: felsic to intermediate medium grained foliated intrusive intercepted at depth in some of the KEX diamond drill holes. Often exhibits disseminated euhedral to subhedral arsenopyrite.



Figure 2

Klondike schist: orange weathering muscovite schist with boudinaged quartz veins that are parallel to foliation.

In outcrop these boudins can be up to 1m thick



Figure 5

Nasina intrusive, felsic to intermediate medium grained foliated intrusive exhibiting augen texture with rotated porphyroclasts.

Some show pseudomylonitic texture (above).



Figure 6

Silica sinter, yellow weathering medium grey fine grained sinter with bladed euhedral quartz-lined vugs. These vugs are sometimes filled with kaolinite.

Samples often contain over 10% arsenic arsenopyrite is fine grained and hard to see in hand specimen.



Figure 7

Relatively rare chlorite-hematite Nasina schist.



Figure 8

Hydrothermal breccia where quartz veining is large enough and fractures the host rock. Sometimes contains sphalerite, pyrite and other sulphides.



Figure 9a

Fault gouge: sericite/clay(orange), most often associated with low angle, foliation parallel, west verging reverse faults.



Figure 9b

Fault gouge: Graphite, sometimes next to the orange clay gouge 10a.



Figure 9c:

Fault gouge: Chlorite, found near Bedrock Creek.

STRUCTURE

The naming of structures are largely following those laid out by previous work done by Murray Allan(2011) and others. Observations were made on the core prior to reading the report and the interpretations were similar enough to warrant keeping the names.

S1 are small centimeter scale quartz-rich and mica-rich layers that may represent a primary compositional feature of a sedimentary protolith seen in (Figure 3).

S2 is a well-defined foliation that is roughly parallel to S1 and gently dips about 20 degrees to the east and southeast. The foliation has a rotational aspect with localized asymmetrical porphyroclasts implying some component of shear rather than just compressional burial metamorphism (Figure 6).

D3 is a set of 1 cm scale crenulations with axial planes that cuts D2 at roughly 60 degrees. These crenulations are rarely seen in core but were occasionally intercepted. One good exposure of the D3 crenulations can be seen on the west wall of the entrance to the addit at Miller creek (in Appendix A). The crenulation



Figure 10

Silicification of graphitic biotite schist (above) with D4 fracture/wavy-sided quartz vein.

Sericitization(below) high angle quartz vein with minor sphalerite and arsenopyrite exhibiting typical sericitization in host schist.



Figure 11:

Sericite alteration is often near high angle sharp sided quartz veins and brittle structures that crosscut foliation at 90 degrees.



Figure 12

VG in glassy-white quartz vein

may be evidence for larger regional folding. D4 is represented by a set of high angle brittle-ductile features that include tension gashes, drag folds and quartz veining that cut foliation at 45 degrees. There is significant evidence of shearing along these structures but nothing to suggest a large amount of displacement. D5 is a set of strike slip faults and quartz veining associated with the Sixtymile Fault (Lowe and Cassidy, 1995). These can create flower structures and rotate the foliation, though no clear examples have been seen. One potential example of this is the "oblique-slip" fault from T1. This is likely one of the thrust faults that was rotated.

ALTERATION

Common alteration in the rocks include silicification, sericitization, kaolinization, chlorite and graphite alteration. Silicification is most commonly found in the Nasina subterranean rocks and is often accompanied by fine-quartz stockwork veining that cross foliation at random angles (Figure 10). Silicification can also be seen near some brittle faults with core loss and silica sinter zones, but not always.

Sericite alteration is often near D4 veining and structures.

The alteration gives the rocks a lighter halo of around structures (Figure 11). This suggests significant fluid flow and metasomatism near these structures. Sericite alteration is also present in fault gouge in D4 thrust faults where it shows up as orange pearly clay.

Kaolinization is an alteration product of feldspar near and within some of the D4 veins. These veins are sometimes accompanied by sphalerite, pyrite and minor arsenopyrite (Figure 9). Kaolinite also fills quartz lined vugs in the silica sinters (Figure 7).

Chlorite alteration is represented as a regional retrograde metamorphism of the biotite schist, chlorite is also present in some fault gouge (Figure 10c) and the chlorite-hematite schist (Figure 8).

FAULTS

West to northwest verging thrust faults have clay and graphite gouge and alteration. Near these faults the foliation is deflected and completely transposed to be parallel, though the undeflected foliation orientation is relatively close. Meter scale drag folds were uncovered on the hanging and footwalls of the thrust faults at Glacier creek T2. This allowed us to determine that the

faults verge to the west and are, in fact reverse faults. There is also significant sericitization and silicification near most of these features, which suggests significant flow along these structures and potential conduits for gold mobilization.

These thrust faults are locally deflected giving an apparent oblique slip movement. They can be correctly identified by observing the composition of the fault gouge and their west/northwest vergence.

Dextral strike slip faults cross-cut all others and are expressed as steeply dipping, east-west faults that may show up in topography as straight benches and ledges that run parallel to upper-glacier creek. There are quartz splays that also show dextral strike slip movement but trend northwest (D5 veining). These structures are perfectly aligned with maximum extension of an E/W dextral strike slip fault.

VEINS

S2 veins are thick, 10cm to over a meter thick, boudinaged clear quartz veins that are the earliest stage of quartz veining. These intruded prior to or during the development of the S2 foliation. They are more commonly found in the Klondike schist but can be seen in the Nasina biotite schist as well. These sometimes have graphite around the edges and minor sulphides within.

D4 veins are high angle anastomosing milky quartz-feldspar veins accompanied by sericitization and sometimes silicification. The feldspar is usually completely pseudomorphed by clay minerals or sericite. D4 veins usually have some euhedral arsenopyrite and other minor sulphides such as chalcopyrite and sphalerite. These veins are sometimes cut and folded by more D4 deformation and significant strain was accommodated as minute tension gashes within the veins. This suggests that there were two stages of D4 deformation, an earlier more ductile stage of D4 deformation that had significant quartz, feldspar veining, and a second more brittle phase that further deformed the rocks.

D5 veins are high angle, straight edged typically white, shiny quartz veins. These often have pyrite and arsenopyrite concentrated near the margins. These veins generally strike northwest to southeast and are likely a result of en-echelon extension associated with the dextral

strike slip faults. These veins weather deep red at surface and can be up to 80% arsenopyrite.

There are also pyrite/apy filled drag folds and tension gashes close to the epithermal, low sulphidation sinter zone. The sinter is locally brecciated with a pyrite/arsenopyrite matrix and bladed quartz lined vugs are common. This is likely a more recent overprinting. These intercepts can be over 10% arsenic by weight. There has been some gold recovered in these sinter zones and Rackla found some good intercepts in the sinter and adjacent porphyry to the east of the claim. There also seems to be two chemical signatures of the placer gold with most regions having high gold to silver ratio but others with higher silver and a more typical epithermal style gold.

MINERALIZATION

Gold mineralization is likely originally associated with orogenic, shear-hosted, disseminated arsenopyrite that has undergone multiple styles of gold concentration with varying degrees of success. The gold is concentrated in faults and veins and also in epithermal style silica sinters.

Gold is concentrated in the Nasina schists with the majority of gold occurring with D4 deformation and veining present (Figure 12). This is often accompanied by sericitization of the host rock and increased disseminated arsenopyrite and euhedral APY near D4 vein boundaries.

The gold was concentrated once again in some of the D5 veins near thrust faults. To date the D5 veins have only contained up to 1 g/ton Au but the presence of auriferous fluids with arsenopyrite gives credence to the potential of these veins. Further to the west on the claim and near Miller Creek there is more of an epithermal signature. DDH10-04 intercepted a large body of typical low sulphidation silica sinter complete with bladed quartz lined vugs and boiling structures. There are also known cinnabar occurrences on Miller Creek and extensive Carmacks volcanics to the east. These are likely responsible for re-mobilizing some gold and concentrating the gold in boiling zones. There are some occurrences of placer gold that have a relatively low gold to silver ratio compared to typical placer workings in the area. It is possible that epithermal gold (electrum) is a separate source for these placer deposits.

S1 BANDING



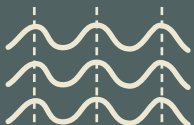
- Primary composition of pelitic protolith
- Parallel to S2 foliation

S2 FOLIATION



- Dips 20 to East/Southeast
- Affects topography

D3 CRENUATIONS



- Rarely seen
- May be evidence for large folding

D4 VEINS



- Strikes North to Northeast
- Milky quartz
- Tension gashes in vein
- Clay after feldspar

D5 VEINS



- Strikes Northwest
- Sharp-sided
- Milky but glassy quartz
- Weathers red/orange
- Massive apy

RELATIVE TIMING

The timing of structures and veins can be determined by texture and cross-cutting relationships seen in core and outcrop. The first main fabric that can be seen is the S2 foliations with boudinaged quartz veins. These veins intruded either before or during the deformation event that created the S2 foliation. This large deformation event is interpreted as a large predominantly compressional regional metamorphism up to amphibolite facies. Some component of shear is present in a few locations as evidenced by the rotated porphyroclasts in the meta-intrusive.

The next deformation event was the small D3 2-centimeter scale crenulations with a steeply dipping axial plane. These crenulations may be associated with meter scale localized folding but seem to be somewhat random in outcrop.

The next event to take place was the early D4 veining and more ductile deformation. This is likely associated with regional thrust faulting possibly from the accretion of terranes to the west. Alternatively these faults could have been a result of the Tintina-Denali system that rotates to the west in north-central Yukon. This rotation requires that some of the strike-slip component is accommodated by thrusting.

This D4 deformation continued and became more brittle style with sharp breaks, kink folds and minute sulphide-filled tension gashes within the veins.

The Carmacks volcanics then formed 70MYa and unconformably overly the metamorphic rocks. The silica sinter likely formed at this time along with some of the silicification associated with the sinter. The Carmacks volcanics are undeformed and only offset by the strikes-slip faults.

D5 Faulting and veining was the final event. This is associated with the dextral Sixty-mile Fault and en-echelon splays. This is a continuation of the Tintina-Denali fault system that runs to the north and south. These strike slip splays are responsible for the straight E-W oriented river valleys on the claim. The system has been known to produce reverse flower structures in the region though none have been confirmed on the claim. The D5 quartz-arsenic veins are aligned with extension expected in a right-lateral strike slip stress regime. These thin continuous veins cross cut all other structures except for some thin strike slip faults.

Trench and RAB Drill Observations

LITHOLOGY

The trenches crossed two main rock types. And orange weathering quartz muscovite-sericite schist interpreted as the Klondike schist, and a dark brown weathering quartz biotite-graphite schist (Nasina biotite schist). Both units can be locally silicified and sericitized.

These two units were intercepted in the RAB drill holes along with a pyrite rich sinter zone near Glacier Creek.

STRUCTURE

All structures recorded in the trench map have the correct orientation. Detailed Trench logs and maps can be seen in Appendix B. The dominant orientation of foliation dips roughly 20 to the east. The foliation is locally folded and can be used to determine the movement along multiple faults. One fault set was clearly visible in Trench 1 as an east-west striking dextral strike slip fault. The rocks within the fault zone weathered dark brown and had a gossanous texture. The second set of faults exposed are close to the same orientation as the foliation but slightly steeper and dip to the east-northeast (figure 14). These faults show up as orange clay/sericite +/- graphite bands of gouge at the surface. The widest intercepts of one of these faults was around 4 meters wide. These are interpreted as thrust faults that verge to the northwest based on deflected foliation in the

hanging and footwalls. In trench 2 and 3 minor parasitic folds verge in the same direction as the thrust faults and are interpreted as being correlated. The structural relationships of these structures can be seen with a stereonet in figure 13.

VEINS

Two Common styles of veining were observed in the trench. Foliation parallel veins that always have the same strike as the dominant foliation but dip more steeply in some instances (mapped as foliation parallel quartz veins). These likely needed to be observed more closely to determine if they were S2 veins or D4 veins. Checking to see if the quartz was milky or clear could have differentiated these two styles of veining.

The second style of veining observed in all trenches are nearly vertical, linear quartz-arsenopyrite veins that trend northwest. These veins weather deep red and are conspicuous in outcrop. They have between 20cm to 2m spacing with orientations of 112 to 120 degrees. These are the likeliest source for arsenic anomalies found in the drill holes and the trenches. One sample in T2 contained massive arsenopyrite nodules with VG-lined quartz. Unfortunately, the gold was a thin veneer at the quartz-APY interface and only graded around 1g/ton.

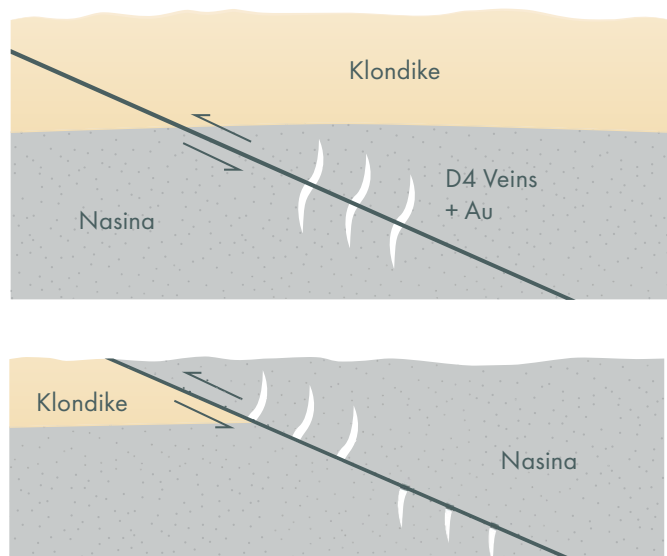


Figure 14

Possible model for thrust fault related D4 veins and gold precipitation at depth. Potential reason for lack of gold mineralization in Klondike schist.

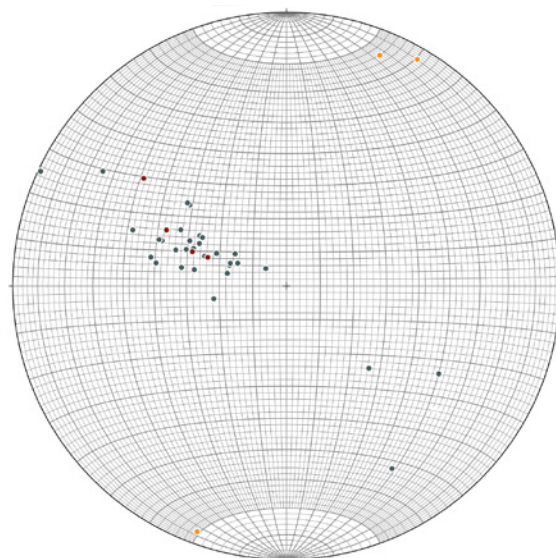


Figure 13

Stereonet analysis of trench 2 structures: Grey dots are poles to S2 foliation, red dots represent thrust faults and D4 deformation, yellow dots are poles to the D5 veins.

PARALLELS BETWEEN GLACIER CREEK AND KENNECOTT (KEX) TRENCH

The rocks at Kex are strongly foliated and gently dip to the south-east. Multiple sets of limonitic (apy at depth) quartz veins were uncovered with 5 to 20m spacing. The veins have an orientation that ranges between 355 and 30 (M. Allan 2011). These veins were intersected at depth with the diamond drill holes 10-01 and 10-02 with apparent dips ranging between 75 and 90 degrees (M. Allan 2011). VG was seen in and adjacent to these veins in both the Glacier and Kex trenches as well as in core (figure 12).

Foliated Rocks at the Glacier creek trenches dip to the east-southeast at about 25 degrees. The auriferous quartz/ arsenopyrite veins uncovered at Glacier Creek are steeply dipping, trend roughly E-southeast and have

a conspicuous red-brown limonite weathering which was noted at the KEX zone as well (M. Allan, 2011). The consistent lithology, orientation and mineralization between the auriferous veins from Kex and those found at glacier creek is evidence that they are likely genetically related and part of the same gold bearing system.

There appears to be very consistent lithologies and style of gold bearing veins between the Kennecott and the upper Glacier Creek zone. This extends the previously described "thrust fault zone" 4.6 kilometers to the north. A preliminary look at a placer trench at Bedrock creek also revealed the same style of faulting and veins (figure 15). A walk along the creek-bed revealed sulphide rich boulders. This potentially extends the thrust fault zone all the way to the south to the placer bearing Bedrock Creek which spans 8 kilometers along strike.



Figure 15

Large fault with similar orientation and gouge composition as those found at Glacier creek.

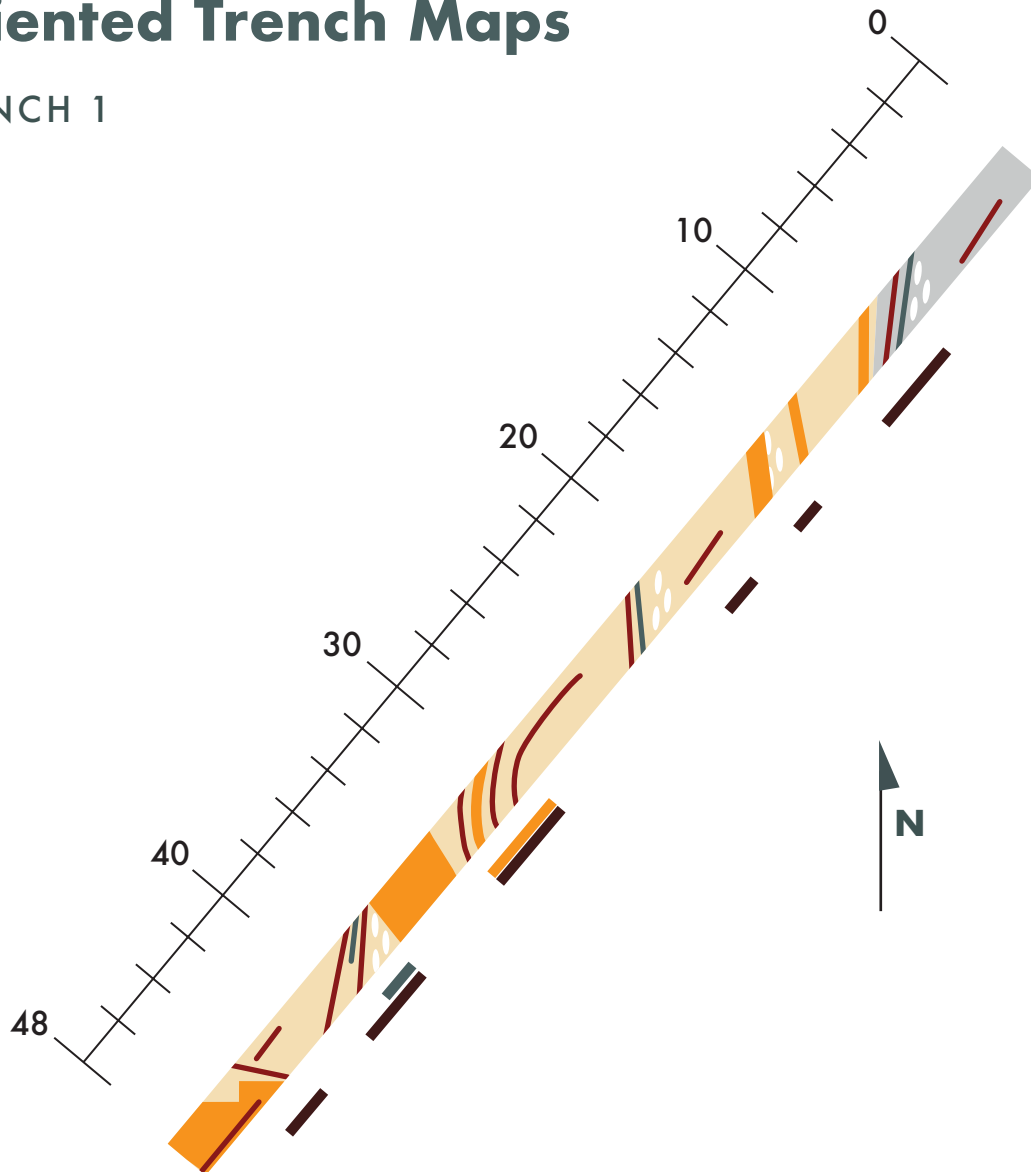


Figure 16

Rusty boulder and alteration found at Bedrock Creek, 8km south of Glacier Creek.

Oriented Trench Maps

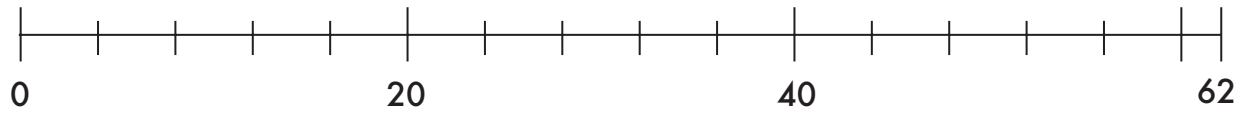
TRENCH 1



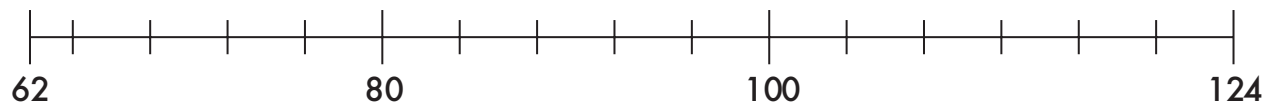
LEGEND

- | | | | |
|---|--|---|---|
|  | Silicification |  | Orange clay fault gouge |
|  | Sericitization |  | Orange weathering Klondike Schist |
|  | Graphite gouge or alteration |  | Foliation parallel quartz veins (D4/S2) |
|  | Brown weathering Nasina Biotite Schist |  | D5 Qtz/Apy veins |

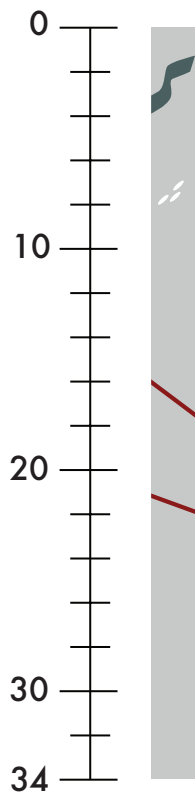
TRENCH 2A 0-62m



TRENCH 2B 62-124m



TRENCH 3



LEGEND

-  Silicification
-  Sericitization
-  Graphite gouge or alteration
-  Brown weathering
Nasina Biotite Schist
-  Orange clay fault gouge
-  Orange weathering Klondike
Schist
-  Foliation parallel quartz veins
(D4/S2)
-  D5 Qtz/Apy veins

Recommendations

LOGGING OF CORE AND CHIPS

The detailed core logs are reliable and can be used for further structural analysis. The most consistent mineralization had silicified schist with wavy quartz veins and disseminated arsenopyrite parallel to foliation. If silicified schist with disseminated euhedral arsenopyrite and pyrite is encountered, special attention should be paid to identify anastomosing quartz veins that run perpendicular to the foliation as these seem to concentrate the gold.

Chip logging can give a good idea of the schist composition, alteration and the presence or absence of sulphides and quartz veining. These can be important gold vectors and when combined with assay results and televue data, may be used to make a more accurate model for gold mineralization. Televue data is very useful when the holes are dry but at the air-water interface OTV data fails to be detailed enough to glean any information. Unfortunately the intercepts from the 2020 RAB program were within that murky zone.

Due to the coarse grained nature of the gold on the sixtymile property special attention needs to be given to ensure that no gold is missed. Most gold that was found in assay from the 2020 program was in the form of a few fine flakes recovered in the plus section of the metallic screen analysis. This shows the importance of testing as much of the sample as possible. Metallic screen analysis is the best technique we can use for now.

One possible technique for gold sampling, involves concentrating the entire RAB hole. This would require crushing all the extra RAB chips to 100 mesh and running the sample through a gravity concentrator. A concentrated sample can then be assayed and there would be no doubt of any missed gold. This would likely be time consuming and hard but is one possibility if results continue to be inconsistent across duplicate samples.

TARGETING OF STRUCTURES

West-northwest trending arsenopyrite veins are the

likely cause for the magnetic lineaments discovered by ground-mag. These have proven to be auriferous though low grade so far. They are highly prospective and easy to target based on their linear and conductive nature. D4 veins that are associated with the thrust-faulting are also highly prospective. Depending on the fault gouge within the thrust faults, they would likely be east dipping conductors. These are unfortunately difficult to drill through with RAB because the clay fills the bit and a lot of air pressure can be lost in the gouge causing poor recovery. One technique that could work to determine the spacing of D4 veins would be to drill down-dip parallel to the faults. Crossing the fault into the underlying Klondike schist would likely represent a discrete break in gold mineralization (figure 14).

TARGETING OF VEINS

Auriferous arsenopyrite and quartz veins discovered at the trench have consistent orientation between 112/75 and 120/80. These steeply dipping structures cross cut foliation at roughly 90 degrees. Veins at Kex have a consistent dip but orientations range from 360 to 30. The main similarity between these veins are their dips and a conspicuous red-brown limonite weathering colour. Targeting these D5 veins should be done by analyzing geophysics for linear conductors with consistent orientations. The stronger the lineation, the larger potential for closely spaced or wider D5 veins. One main factor to consider is the D5 veins have only been auriferous near the D4 thrusts. The orientation of the surveys also need to be planned out so that they do not run parallel to these structures.

Targeting D4 veins will be tricky since they seem to increase in size and frequency as they approach the thrust faults. They strike parallel to the dominant S2 foliation and were likely formed at depth before being transported further up juxtaposing an auriferous hanging-wall with a barren foot-wall. The footwalls are also likely auriferous at depth though targeting these may be difficult without a very good model of the sub-surface.

Conclusion

The Sixtymile property is a complex region that has significant local gold as seen by the rich coarse-grained placer gold. The Nasina subterranean rocks are likely the source of orogenic gold with local enrichment with various degrees of success from faults, veining and epithermal fluid flow. The most promising sources for the placer gold appear to be quartz veining associated with thrust faulting (D4) and massive APY veins associated with strike slip faulting (D5). A working hypothesis for the placer gold source was developed by core re-logging and trench mapping programs as well as conversations with the local placer miners on site. The likeliest source of gold at Glacier Creek are two the D4 and D5 veins associated with large scale faulting.

D5 veins are auriferous and exhibit textures that were seen in some of the placer nuggets, along with a weathered sulphide coating.

The D4 Veins are also highly prospective though difficult to distinguish in outcrop from S2 veining. Special care must be taken to identify which quartz vein system is being observed and take note of any preserved rock fabrics.

Some other potential placer source candidates include mineralized thrust faults/gouge and low sulphidation epithermal style silica sinter.

The Sixtymile property has enormous untapped gold potential because of the rich historic placer workings, widespread, consistent lithology and pervasive D4 deformation that may span over 8 kilometers across three gold-bearing river valleys on the claim.



References

Allen, M. Appendix B, Controls on Orogenic Veining in the Sixtymile, Assessment report on the sixtymile property 2011 geophysical survey and diamond drilling. Yukon Energy Mines and resources. Assessment report No. 096296 (2011)

Husltein, R. Assessment report on the sixtymile property 2011 geophysical survey and diamond drilling. Yukon Energy Mines and resources. Assessment report No. 096296 (2011)

Lowe, C. Cassidy, J.F., 1995. Geophysical Evidence for Crustal Thickness Variations between the Denali and Tintina Fault Systems in West-Central Yukon. *Tectonics*, Vol. 14, No. 4, pp 909-917.

Metcalf, P. and G. S. Clark
Rb-Sr whole-rock age of the Klondike Schist, Yukon Territory, *Can. J. Earth Sci.* 20, 886-891 (1983)

Wheeler, J.O., A.J. Brookfield, H. Gabrielse, J.W.H. Monger, H.W. Tipper, and G.J. Woodsworth,
Terrane map of the Canadian Cordillera, *Geol. Surv. Can. Open File*, (1894, 1988)

Stephen T. Johnston, P. Jane Wynne, Don Francis, Craig J. R. Hart, Randolph J. Enkin, David C. Engebretson,
Yellowstone in Yukon: The Late Cretaceous Carmacks Group,
Geology (1996) 24 (11): 997–1000