

### **Assessment Report**

Describing

# Diamond Drilling, Reverse Circulation Drilling, Trenching, Soil Sampling, and Prospecting

Performed on the

Goldcorp Inc. 100% Owned Coffee Property

March 1<sup>st</sup>, 2017 to November 15<sup>th</sup> 2017

NTS map sheets 115J/13, 115J/14 and 115J/15

Latitude 62°52'N and Longitude 139°20' W

In the Whitehorse Mining District

## 2017 Exploration Assessment Report for the Coffee Gold Project, Yukon Territory, Canada

Prepared For: Goldcorp Kaminak Ltd. 3400-666 Burrard Street Vancouver, BC V6C 2X8

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### Company

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## 1 Introduction

This is an assessment report on the Coffee Gold Project ("the Project"), detailing drilling, trenching, and prospecting conducted on the property during the 2017 field season

The Project is located in the Dawson Range, west-central Yukon, and comprises multiple gold occurrences within a large ~600 km2 exploration concession. In 2017, 117 core boreholes (18,421 m) and 528 reverse circulation boreholes (50,851 m) were drilled for exploration, infill, condemnation, metallurgical, and geotechnical purposes. An infill soil sampling program (2,953 samples) and a single exploration trench was excavated. A total of \$14,167,315 was spent over the course of this work.

## **2** Property Description and Location

The Coffee Project is located in west-central Yukon, within the Whitehorse Mining District, Canada, 130 kilometers (km) south of Dawson (Figure 4.1). The Project comprises 3,129 contiguous claims covering an aggregate area of approximately 62,630 hectares (ha). Claims are summarized in Table 4.1. The Coffee property covers parts of 1:50 000 scale national topographic system (NTS) map sheets 115J-13, 115J-14, and 115J-15. The main mineralized zones at the Project are centred at the UTM NAD83 coordinates of 6,974,000mN and 584,000mE.

### 2.1 Mineral Tenure

The main Coffee Project claim block consists of 3,129 registered claims (2,927 Coffee, 108 Coffee NW, 68 Cream, 16 Lion, and 10 Sugar). The entire claim block covers an area measuring approximately 50 km by 12 km (Figure 4.1). The boundaries of the individual claims have not been legally surveyed. The list of claims is presented in Figure 4.2.

The mineral rights include surface rights under the Yukon Territory Quartz Mining Act, including access to the property under a Class 4 Mining Land Use Permit to undertake exploration activities (see Section 4.3) and the right to extract mineralized material from surface pursuant to the grant of a Quartz Lease (see Section 4.4).

### 2.2 Underlying Agreements

Kaminak's rights to the Coffee claims were acquired from prospector Mr. Shawn Ryan of Dawson City, through an agreement dated April 27, 2009 (amended and restated on June 9, 2009 and further amended on March 25, 2010 and March 30, 2011). Pursuant to that agreement, in 2011 Kaminak earned a 100% legal and beneficial interest in the property by making cash payments of \$400,000; issuing 2,000,000 shares; and fulfilling a \$1,800,000 work commitment.

There is a 2% net smelter returns royalty (NSR) on the property, payable to Mr. Ryan, subject at any time to a 1% buy-back for C\$2.0 M, with annual advance royalty payments of \$20,000 commencing December 31, 2013. Subject to the 2% NSR payable to Mr. Ryan, the property is free and clear of all liens and third party interests.

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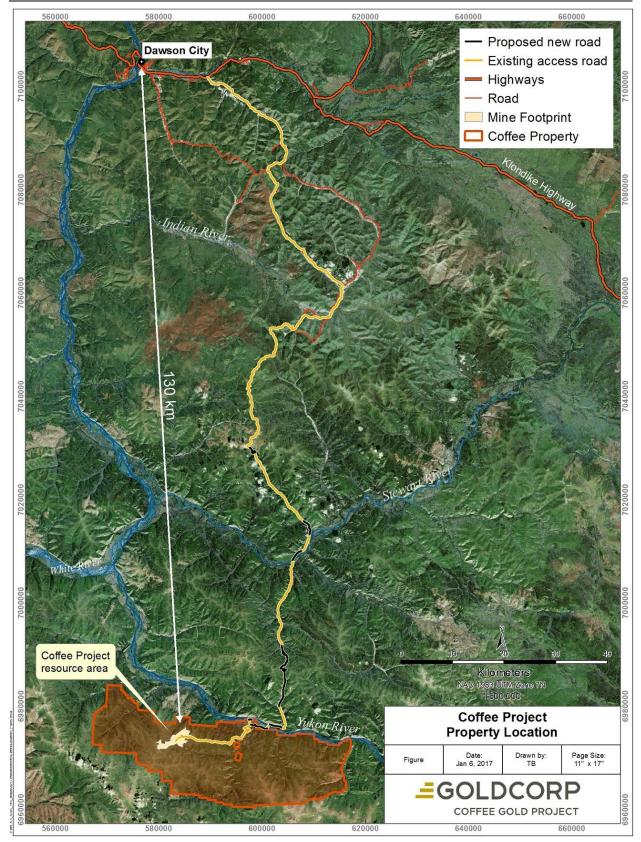


Figure 2.1: Coffee Project Location Map

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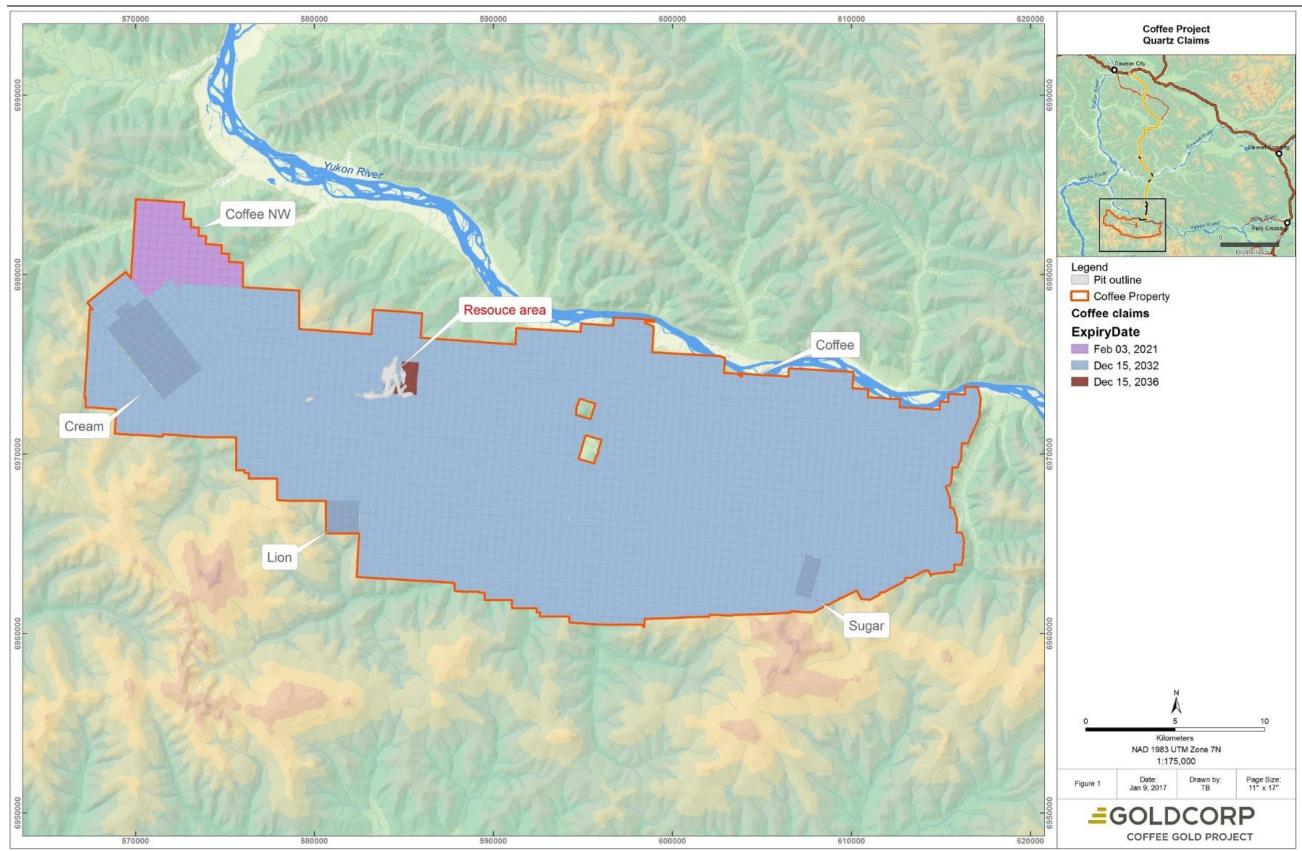


Figure 2.2: Mineral Tenure Map

Property	Claims Names	Grant numbers	Claim Expiry Date
COFFEE	COFFEE 1 - 6	YC46734 - YC46739	2032 12 15
COFFEE	COFFEE 7 - 16	YC46740 - YC46749	2036 12 15
COFFEE	COFFEE 17 - 36	YC53949 - YC53968	2032 12 15
COFFEE	COFFEE 37 - 92	YC54445 - YC54500	2032 12 15
COFFEE	COFFEE 93 - 112	YC60164 - YC60183	2032 12 15
COFFEE	COFFEE 113 - 226	YC83190 - YC83303	2032 12 15
COFFEE	COFFEE 227 - 276	YC83652 - YC83701	2032 12 15
COFFEE	COFFEE 277 - 344	YC89405 - YC89472	2032 12 15
COFFEE	COFFEE 345 - 404	YC93441 - YC93500	2032 12 15
COFFEE	COFFEE 405 - 410	YC97368 - YC97373	2032 12 15
COFFEE	COFFEE 411 - 610	YC92601 - YC92800	2032 12 15
COFFEE	COFFEE 611 - 625	YC93351 - YC93365	2032 12 15
COFFEE	COFFEE 627 - 726	YC96801 - YC96900	2032 12 15
COFFEE	COFFEE 727 - 792	YC92535 - YC92600	2032 12 15
COFFEE	COFFEE 793 - 865	YC92818 - YC92890	2032 12 15
COFFEE	COFFEE 866 - 894	YC93271 - YC93299	2032 12 15
COFFEE	COFFEE 895 - 910	YC92801 - YC92816	2032 12 15
COFFEE	COFFEE 911 - 960	YD12701 - YD12750	2032 12 15
COFFEE	COFFEE 961 - 969	YD13231 - YD13239	2032 12 15
COFFEE	COFFEE 970 - 1416	YD13241 - YD13687	2032 12 15
COFFEE	COFFEE 1421 - 1429	YD13692 - YD13700	2032 12 15
COFFEE	COFFEE 1430	YD42501	2032 12 15
COFFEE	COFFEE 1435 - 1496	YD42506 - YD42567	2032 12 15
COFFEE	COFFEE 1497 - 1714	YD42701 - YD42918	2032 12 15
COFFEE	COFFEE 1715 - 1718	YD43085 - YD43088	2032 12 15
COFFEE	COFFEE 1719 - 1954	YD43929 - YD44164	2032 12 15
COFFEE	COFFEE 1955 - 2124	YD16283 - YD16452	2032 12 15
COFFEE	COFFEE 2125 - 2346	YD89255 - YD89476	2032 12 15
COFFEE	COFFEE 2347 - 2846	YD91501 - YD92000	2032 12 15
COFFEE	COFFEE 2847 - 2936	YD90101 - YD90190	2032 12 15
COFFEE NW	COFFEE NW 1 - 108	YF01901 - YF02008	2021 02 03
CREAM	CREAM 1 - 22	YC60088 - YC60109	2032 12 15
CREAM	CREAM 23 - 68	YC83144 - YC83189	2032 12 15
LION	LION 1 - 16	YC83761 - YC83776	2032 12 15
SUGAR	SUGAR 1 - 10	YC95568 - YC95577	2032 12 15

### Table 2-1: Kaminak Coffee Property Claims

### 2.3 **Permits and Authorization**

Kaminak has obtained all permits and authorizations required from governmental agencies to allow surface drilling and exploration activities on the Coffee Project.

The Energy, Mines and Resources Department of the Yukon Government issued a Class 4 Quartz Mining Permit on July 12<sup>th</sup>, 2011, amended on February 29, 2012, and again on April 21, 2016, with an expiry date of July 11, 2021. The Class 4 Permit includes provisions for: an 80-person camp (Coffee camp) located on the Yukon River near the confluence with Coffee Creek, a 40 km access road, temporary trails to allow improved access to the property, a winter road, and surface drilling and exploration activities on the Coffee Project. The Class 4 Mining Land Use Permit (#LQ00312b) is the sole permit necessary for the exploration work currently undertaken.

The Yukon Water Board issued a Class B Water Licence on April 18, 2012 (licence number MN12-014), with an expiry date of July 11, 2016. The Class B Water Licence was required when the camp numbers increased from 50 persons. The Class B Water Licence was renewed by the Yukon Water Board as MN16-034 on July 12, 2016, with expiry date of July 11, 2026.

Apart from those disclosed herein, the Qualified Persons are unaware of any other significant factors and risks that may affect access, title, or the right or ability to perform the exploration work recommended for the Coffee Project.

### 2.4 Mining Rights in the Yukon

The Yukon mining industry is governed by the Quartz Mining Act. A basic overview of mining rights in the Yukon is given as follows from the government's website (www.emr.gov.yk.ca/mining):

"The Quartz Mining Act [QMA] is the primary legislation governing hard rock mining activities on lands in Yukon. The purpose of the QMA is to encourage prospecting, exploration, staking and development of mineral resources by providing an orderly system of allocation of exclusive rights to minerals. Specific permission must be obtained where the surface is occupied by others.

"Mineral tenure is granted under the free entry system in Yukon. This system gives individuals exclusive right to publicly-owned mineral substances from the surface of their claim to an unlimited extension downward vertically from the boundary of the claim or lease. All Commissioner's lands are open for staking and mineral exploration unless they are expressly excluded or withdrawn by order-in-council (e.g. parks, interim protected lands, buildings, dwelling houses, cemeteries, agricultural lands, settlement lands)."

A Mineral Claim (claim) is a parcel of land granted for hard rock mining, which also includes any ditches, water rights or other things used for mining the claim. A claim is a rectangular plot of land, which does not exceed 1,500 ft by 1,500 ft. All angles of a claim must be right angles, except for fractional claims, which consist of land found between and bounded on opposite sides by previously located mineral claims. A fractional claim does not need to be rectangular in form and the angles do not need to be right angles.

Staking a claim requires that claim tags be obtained from the Mining Recorder prior to staking in the field and that posts be placed in the ground according to specific regulated requirements. Tenure to the mineral rights is dependent on performing exploration work on the claims. To renew claims, a full report of the work done must be submitted to the Mining Recorder when work has been done on claims. Renewal of a claim requires that \$100 of work be done per claim per year, based on the Schedule of Representation Work outlined in the Quartz Mining Act. Where work is not performed,

a payment in lieu of work can be filed. Claims can be grouped to allow for assessed work performed on one claim to be distributed to adjoining claims.

A Quartz Lease (lease) can be acquired by upgrading claims which have known vein or lode mineral deposits. A lease is considered the most secure mineral right in Yukon. Companies contemplating production will take their claims to lease to provide secure title. Leases are issued for 21-year periods.

## 3 Accessibility, Climate, Local Resources, Infrastructure & Physiography

### 3.1 Accessibility

The Coffee Gold Project is located, approximately 130 km south of Dawson and approximately 160 km northwest of Carmacks within the Dawson Range. The Casino copper-gold porphyry deposit (Western Copper Corporation) is located approximately 30 km southeast of the main drilled zones of the Project.

Access to the property is by airplane or helicopter from Whitehorse and/or Dawson or by barge via the Yukon River. In 2011, Kaminak constructed a 23 km road from the barge landing at the Coffee Gold Project camp to the Supremo and Latte drilling areas. This road was the main access for exploration activities from 2012 through 2017. A 6.5 km westward extension of the access road to the Kona deposit was completed in late 2017.

### 3.2 Local Resources and Infrastructure

There are currently no all-weather or winter roads connecting the Coffee Gold Project to any of the major communities in the Yukon. However, the Feasibility Study proposes the construction of a 214 km all-weather gravel road between Dawson and the Coffee property. Crossing of the Stewart and Yukon Rivers will be by barge in summer and ice road in winter. An airstrip is located at the Coffee Gold Project camp approximately 10 km from the areas of gold mineralization.

Currently, river transport along the Yukon River, with multiple barge access points to the Coffee Gold Project exploration camp, is available for five months during the summer period when the river is free of ice.

### 3.3 Climate

The Yukon has a subarctic, continental climate with a summer mean temperature of 10°C and a winter mean temperature of -23°C. Summer and winter temperatures can reach up to 35°C and -55°C respectively. Dawson, the nearest access point, has a daily temperature average above freezing for 180 days of the year.

### 3.4 Physiography

The Coffee property is located in the northern Dawson Range, forming a moderate plateau that escaped Pleistocene glaciation. As such, the topography of the area is defined by stream erosion resulting in gently rounded hills with tightly incised valleys. Across the property, elevations range from 400 to 1,500 m above sea level. The majority of the property is above tree line and contains short shrubby vegetation.

The Coffee Gold Project claims encompass an area of partially tree-covered hills on the Yukon Plateau, incised by mature drainages that are part of the Yukon River watershed. The property has local mature pine forests with thick moss cover on the ground. Bedrock exposures are scarce (Figure 5.1).

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### Figure 3.1: Typical Landscape in the Project Area

- A. View of the Coffee Gold Project exploration camp looking south
- B. Core yard at Coffee Gold Project camp looking north
- C. Active core drilling at Double Double looking southeast
- D. View looking west-southwest towards Latte from the Supremo Zone
- E. Aerial view, looking northwest, of the Espresso, Kona, Latte, Supremo and Double Double mineralized zones.

Source: Kaminak 2014

## 4 Property History

The Coffee Gold Project area has a limited hard rock exploration history and only minor placer activity. The Coffee Gold Project site has experienced sporadic exploration for placer gold from the turn of the last century until 1981. Prior to 1981, hard rock exploration in the area was limited to a period of reconnaissance in the 1960s and 1970s for porphyry copper.

C.D.N. Taylor, P.Eng., reported that soil and silt samples collected from Coffee Creek, near the confluence of the Yukon River, contained "uniformly high, double digit arsenic values." Taylor recommended that Coffee Creek be re-sampled during low water table levels (Jaworski and Meyer, 2000; Taylor, 1981).

Deltango Gold Ltd. conducted silt and soil sampling in 1999 in the area of the Coffee Gold Project claims and recommended further work, based on anomalous results (Jilson, 2000). During 1999 and 2000, a brief exploration program was conducted by Prospector International Resources. This program involved stream sediment sampling of secondary drainages, contour and ridgeline reconnaissance soil sampling, rock sampling of available outcrop and prospecting pits, and minor fluid inclusion work. The 1999 work, at a wide sample spacing, identified an open-ended soil gold anomaly. The 2000 work further delineated the extent of this anomaly to be approximately 400 by 900 m, resulting in the recommendation that further soil sampling be undertaken together with mechanized trenching (Jaworski and Meyer 2000; Jaworski and Vanwermeskerken 2001). The recommendation to undertake additional exploration, made by the exploration geologists, was not followed by management and the properties were subsequently idle and assessments not met, until they lapsed in 2006.

In 2006, within days of the Deltango and Prospector International claims lapsing Shawn Ryan began staking the 'Coffee' claims. Then in 2006 and 2007, utilizing YMEP grants made by Yukon Government, Ryanwood Exploration conducted grid sampling and ridge-top soil sampling traverses on the Coffee Gold Project claims (Ryan, 2007; Ryan, 2008).

In June 2009 Kaminak executed an option agreement with Mr. Shawn Ryan to acquire the Coffee Gold Project. Following this agreement, Kaminak expanded the soil sampling grid in the Coffee areas, developing targets at Supremo, Latte, Kona, Espresso and Double Double. Trenching, geological mapping, and prospecting were conducted at all of these target areas. Kaminak pursued drilling programs from 2010 through 2017 on Supremo, Latte, Latte West, Sumatra, Arabica, Double Double, Americano, Americano Central, Americano West, Espresso, Kona, Kona North, Kona Periphery, AmeriKona, Macchiato, Supremiato, Kazaar, Cappuccino, French Press, Dolce, and Sugar.

The exploration and drilling activities completed by Kaminak from 2009 to 2017 are discussed in Section 7 and 8.

## **5** Geological Setting and Mineralization

### 5.1 Regional Geology

The Coffee Project is located in the Yukon-Tanana Terrane (YTT), an accreted pericratonic rock sequence that covers a large portion of the Omineca Belt in the Yukon and extends into Alaska and British Columbia. The YTT underlies part of the Tintina gold belt and hosts multiple gold deposits, including the Sonora Gulch gold deposit, the Casino copper-gold-molybdenum porphyry, the Boulevard gold prospect, and the Golden Saddle gold deposit (Bennett et al., 2010; Allan et al., 2013). The YTT also hosts volcanogenic massive sulphide (VMS) and Mississippi Valley-type (MVT) deposits (Figure 5.1).

The YTT is composed of a basalt metasiliclastic sequence overlain by three subsequent volcanic arcs. The oldest component of the YTT is the Snowcap assemblage which was deposited prior to the Late Devonian, which consists of metasediments including psammitic schist, quartzite, and carbonaceous schist in addition to local amphibolite, greenstone, and ultramafic rocks (Piercey and Colpron, 2009). The Snowcap assemblage was deposited on the ancient Laurentian margin in a passive marine setting (Piercey and Colpron, 2009). The beginning of eastward subduction of the paleo-Pacific plate led to the formation of a magmatic arc at approximately 365 Ma (Colpron et al., 2006a). Rapid westward slab rollback caused significant extension, which initiated the formation of the Slide Mountain Ocean back-arc basin by approximately 360 Ma (Colpron et al., 2007). Arc volcanism during the Wolverine-Finlayson magmatic cycle (365-342 Ma) deposited submarine mafic and felsic volcanic rocks of the widespread Finlayson assemblage onto the Snowcap assemblage (Colpron et al., 2006b).

A reversal of subduction polarity during the Late Permian resulted in the western margin of Slide Mountain Ocean subducting beneath the evolving YTT (Erdmer et al., 1998). This subduction initiated a magmatic arc which was active from 269-253 Ma and formed the Klondike arc assemblage, the youngest member of the outboard YTT (Allan et al., 2013; Colpron et al., 2006a). Closure of the Slide Mountain Ocean by the Latest Permian to Early Jurassic led to the obduction of the YTT onto the Laurentian margin, causing a collisional event responsible for lower amphibolite facies metamorphism in the Coffee Project area (Beranek and Mortensen, 2011). In addition, collision resulted in the development of a low-angle transpositional foliation recognized throughout the YTT (S2 of Berman et al., 2007).

Following accretion of the YTT onto Laurentia, easterly subduction caused intra-arc shortening and compressional deformation. In the Klondike and the area of the Coffee Project, thrust faultbounded panels of Slide Mountain assemblage greenstone and serpentinized ultramafic occur within the tectonic stratigraphy of the YTT (Buitenhuis, 2014; MacKenzie et al., 2008).

These thrust-emplaced slices are generally less than 100 m in thickness, dip to the southwest, and persist for tens of kilometres in some areas (MacKenzie and Craw, 2010 and 2012). The emplacement of these slices is contemporaneous with northeast-vergent, open to tight folding dated between 195 and 187 Ma (Berman et al., 2007).

Beginning in the early- to mid-Cretaceous, localized rapid uplift and exhumation occurred throughout the YTT in Yukon and Alaska, including the Dawson Range (McCausland et al., 2006; Dusel-Bacon et al., 2002; Gabrielese and Yorath, 1991). Extension and unroofing of the rocks of the Dawson Range was accompanied by the emplacement of the Coffee Creek granite and Dawson Range batholith (~110-90 Ma; McKenzie et al., 2013; Wainwright et al., 2011;

Colpron et al., 2006; Mortensen, 1992). This localized extension and exhumation is recorded by an apparent age-resetting event observed in white mica in western Yukon-Tanana at roughly 90 Ma (Douglas et al., 2002), in rhenium-osmium dates in molybdenite (92.4 Ma), and U-Pb dates in monazite (92.5 Ma) from plutons in east-central Alaskan YTT (Selby et al., 2002). At the Coffee property, this extension resulted in the activation of the Coffee Creek fault system, a set of dextral strike-slip faults and associated north-to-northeast brittle faults interpreted as splays off of the regional Big Creek fault to the south-east (Sánchez et al., 2013; Johnston, 1999).

### 5.2 Property Geology

The Coffee Project area is underlain by a package of metamorphosed Paleozoic rocks of the YTT that was intruded by a large granitic body in the Late Cretaceous. The Paleozoic rock package consists of a mafic schistose to gneissic panel which overlies the Sulphur Creek orthogneiss. Both packages form the southwestern limb of a northwest-trending antiformal fold with limbs dipping shallowly to the northeast and southwest.

The schistose and gneissic mafic rock package comprises a thick panel of biotite (+ feldspar + quartz + muscovite  $\pm$  carbonate) schist with rare lenses of amphibolite which overlies a panel of amphibolite and metagabbro with arc-derived geochemical signatures. Within the schistose panel, slices of 20 m thick serpentinized ultramafic are in tectonic contact with the surrounding rocks. This rock sequence overlies the augen orthogneiss. These rocks are in contact to the southwest with the 98.2  $\pm$  1.3 Ma Coffee Creek granite. Both the Paleozoic metamorphic rocks and Cretaceous granite are cut by intermediate to felsic dykes of andesitic to dacitic composition.

Due to only rare outcrop exposure on the property (< 5%), the geological map (Figure 7.2 and Figure 7.3) has been compiled from a combination of geological traverses, bedrock mapping, borehole data, soil geochemistry, and geophysics (magnetic and radiometric).

The magnesium number from soil samples (Mg# = Mg/Mg+Fe) was used to discern mafic from felsic units with the granite being the most felsic, followed by the felsic gneiss. The mafic schist unit was further subdivided into felsic-intermediate schist, biotite schist, amphibolite, and ultramafic rocks (Table 5-1).

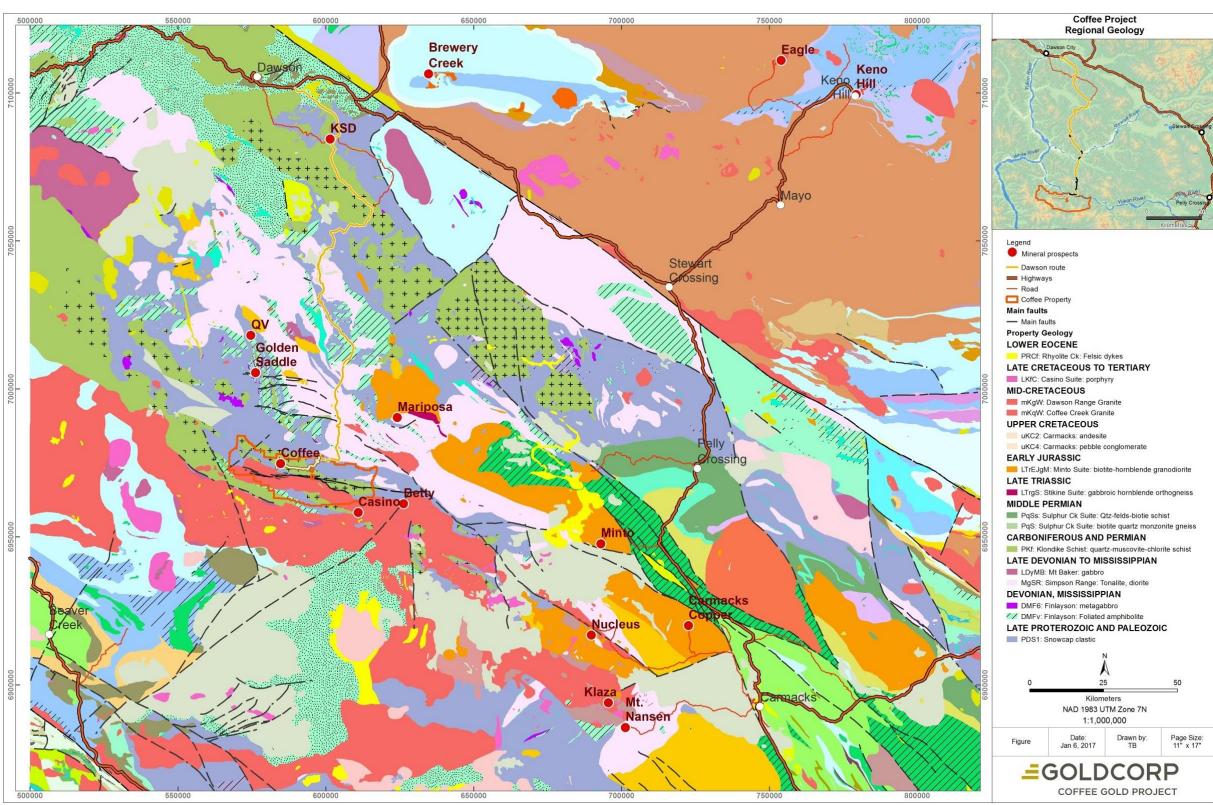


Figure 5.1: Geological Setting of the Coffee Gold Project Area Source: Grodzicki, K. R., Allan, M. M., Hart, C.J.R., 2015. Mineral Deposit Research Unit, University of British Columbia, Yukon

Rock Unit	Description	
Felsic Gneiss	Variable quartz + feldspar augen + biotite + muscovite. Typical Mg# 2-28. Low in potassium. Host to gold mineralized zones at Supremo.	
Biotite Schist	Biotite+/-feldspar+/-quartz+/-muscovite+/- amphibole. Commonly carbonate-rich. High in potassium. Typical Mg# 20 - 40. Locally mylonitic. Host to gold mineralized zones at Latte.	
Muscovite Schist	Mainly quartz + muscovite. Typical Mg# 10 - 20. Locally mylonitic.	
Biotite Amphibolite	Amphibole + feldspar + biotite. Typical Mg# 20 - 40. Biotite and amphibole both Fe-rich. Contains up to 20% biotite.	
Amphibolite	Found within the lower mafic footwall. Amphibole + feldspar ± biotite. Typical Mg# 30-50, biotite and amphibole more Mg-rich than biotite amphibolite. Contains up to 15% biotite.	
Metagabbro/Amphibolite	Interleaved metagabbro with coarse magnesiohornblende + feldspar, and fine- grained, massive amphibolite with >95% magnesiohornblende. Moderate to strong retrogression to actinolite. High Mg content of biotite, amphibole.	
Ultramafics	Serpentinite, pyroxenite or listwaenite. Typical Mg# 50 - 73, higher than all amphibolites and metagabbro. Very high in chromium and nickel.	
Granite	Coffee Creek granite and Dawson Range batholith. Both are phases of the Whitehorse Plutonic suite and are uranium-rich. Dawson Range batholith higher in Thorium. Both are identifiable using airborne radiometrics.	
Dacite Dykes	Quartz + feldspar phenocryst porphyry. Generally strongly silicified and sericitized. Strong spatial association with mineralized gold zones.	
Andesite Dykes	Feldspar phenocrystic. Aphanitic in gold-bearing structures where all original textures are destroyed by intense silicification and sericitization. Strong spatial association with mineralized gold zones.	

### Table 5-1: Main Rock Units in the Coffee Gold Project Area

Source: Kaminak 2017

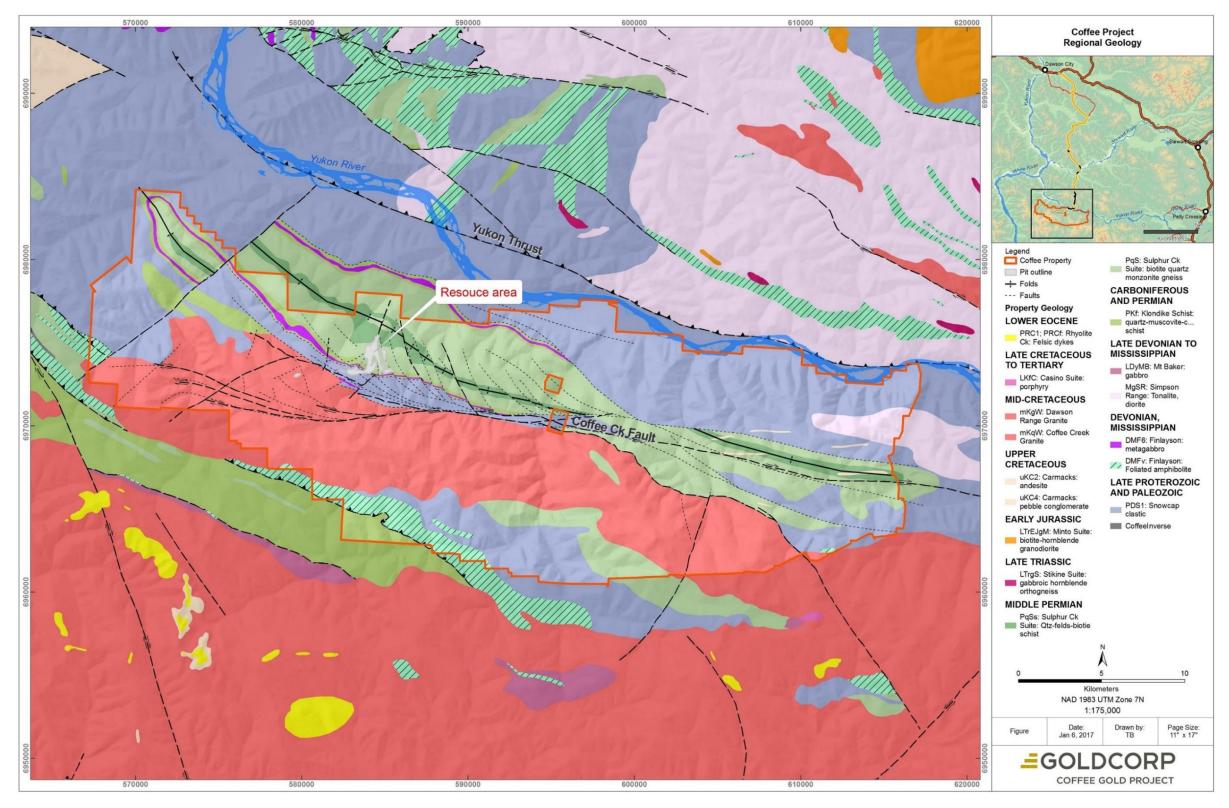


Figure 5.2: Geological Map of the Coffee Gold Project Area. Source: Grodzicki, K. R., Allan, M. M., Hart, C.J.R., and Smith, T. 2015. Geologic Map of the Coffee Gold deposit area, western Dawson Range, Yukon (MDRU Map M-9):

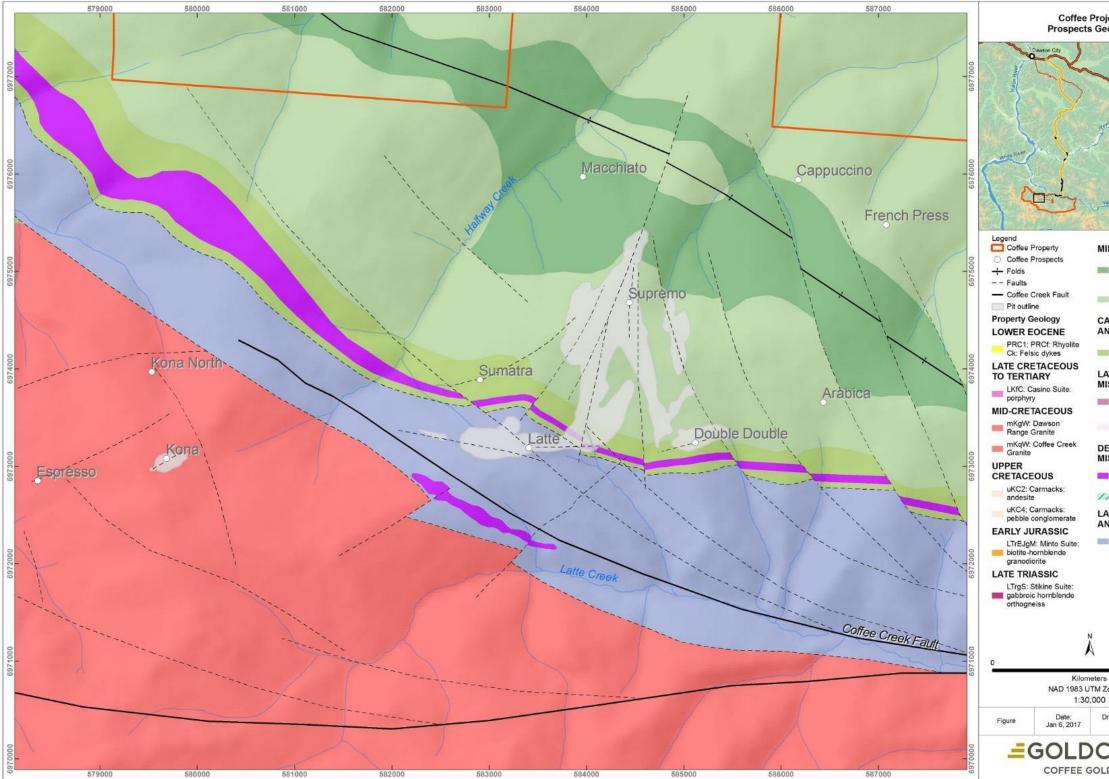


Figure 5.3: Geology in the Supremo, Latte, Double Double, and Kona Area. Source: Grodzicki, K. R., Allan, M. M., Hart, C.J.R., and Smith, T. 2015. Geologic Map of the Coffee Gold deposit area, western Dawson Range, Yukon (MDRU Map M-9):

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### 5.2.1 Lithologies

### Felsic Gneiss/ Sulphur Creek Orthogneiss – Klondike Assemblage

Sulphur Creek orthogneiss ("felsic gneiss") of the Klondike assemblage is found at the stratigraphic bottom of the antiformal fold which cuts the property, centred on the topographic high in the central portion of the Supremo area. The gneiss comprises variable quartz, feldspar augen, biotite and muscovite (Figure 5.4). The felsic gneiss is intercalated with volumetrically minor biotite-feldspar (± quartz ± muscovite ± amphibole) schist, regionally described as Klondike Schist. Typical drill core intervals of biotite-feldspar schist within the dominant augen gneiss package vary in thickness from 0.3 to 10 m. They represent approximately 30% of the rock volume. Felsic gneiss hosts gold mineralization in the Supremo area.

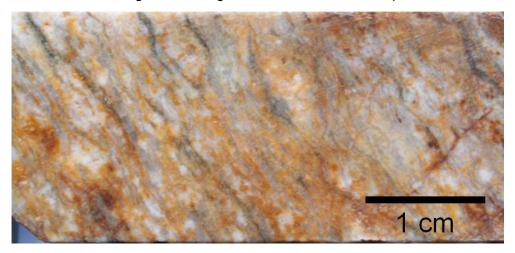


Figure 5.4: Quartzo-feldspathic Augen Bearing Gneiss from Supremo Area, Borehole CFD0002 at 144m

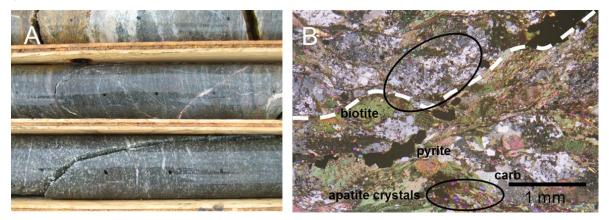
### Biotite Schist – Snowcap Assemblage

Biotite ( $\pm$  feldspar  $\pm$  quartz  $\pm$  muscovite  $\pm$  carbonate) schist of the Snowcap assemblage exhibits variable mineralogy and schistose to mylonitic textures (Figure 5.5). The rocks are variably retrogressed depending on their location relative to areas of metamorphic strain or mineralized intervals.

The schistose texture is defined by interconnected biotite laths up to 1.5 mm in size which wrap around relict and replaced feldspar porphyroblasts. The feldspars vary in size but are generally <2 mm, and laths of phengitic muscovite occur in close association with biotite. Retrogression of the biotite schist produced chlorite replacement of biotite and exsolution of ilmenite within individual biotite laths. Feldspars are replaced by illite/sericite, carbonate, quartz, and epidote or zoisite.

The biotite schists are locally intercalated with marble bands that range from 0.3 m to over 5.0 m in width. The marble bands increase in volumetric importance toward the top of the sequence, and typically occur in localized groupings where band frequency increases to multiple thin (10 - 30 cm) bands per metre.

Carbonate stringers occur throughout the biotite schist package and feldspars are for the most part entirely replaced by carbonate, sericite, and quartz. The biotite schist is the primary host for gold mineralization at Latte and Double Double.



### Figure 5.5: Biotite Schist in Drill Core and Thin Section

- A. Biotite Schist in core from Latte. Borehole CFD0012 at 147 m
- B. Polished thin section of (A) showing pyrite along the rock fabric and replacement of feldspar by quartz, sericite and carbonate (cross polarized light). White dashed line indicates rock fabric. Circled area in top centre of image highlights quartz-sericite alteration after plagioclase.

### Muscovite Schist – Snowcap Assemblage

Muscovite schist is mainly composed of quartz, muscovite, sericite/illite, and relict feldspar with a schistose texture which can locally grade to mylonitic. The schistose texture is defined by muscovite up to 2 mm in size which wraps around feldspar porphyroblasts replaced by sericite/illite and quartz, although up to 10 % biotite may be present (Figure 5.6). Minor cubic brassy pyrite is present as a foliation-concordant feature as seen in the biotite schist. Rare fine-grained ilmenite (< 0.1mm) is present along mica foliation, and the minor biotite present is readily replaced by chlorite.

The muscovite schist unit may have schistose or mylonitic texture locally. In contrast to biotite schist, it is rarely laterally traceable across drill sections, suggesting it is the product of a different, less mafic protolith which was sporadically deposited in the pre-metamorphic environment. It occurs at Latte and Double Double within the schistose and gneissic panels.



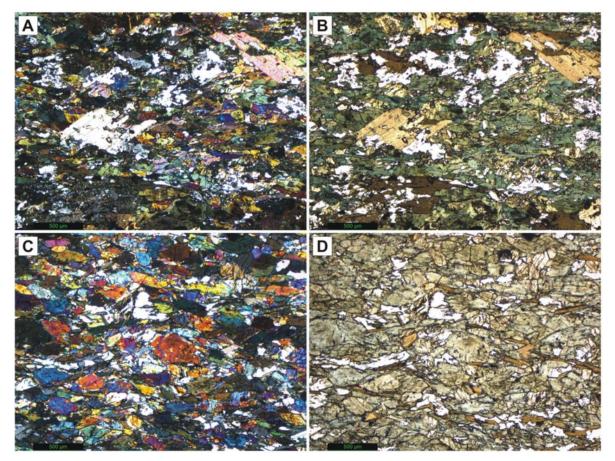
### Figure 5.6: Muscovite Schist in Drill Core and Thin Section

- A. Felsic schist in drill core. Borehole CFD0013 at 161 m
- B. Polished thin section of (A) showing biotite and pyrite in a ground mass (gm) of quartz and sericite (plane polarized light).

### **Biotite Amphibolite – Snowcap Assemblage**

Thin intervals of amphibolite are present in the upper stratigraphy of the mafic schistose and gneissic package, comprising < 20% of the sequence. Massive amphibolite forms dark greenblack units within the biotite schist but has not been observed in close association with muscovite schist. Amphibolite intervals generally contain 80-90% hornblende, 10-20% biotite, and rare plagioclase and quartz. Weak to moderate foliation is defined by alignment of amphibole (Figure 5.7).

Amphibole is fine-grained (< 0.5 mm) while biotite laths are generally larger in size (1 mm). Greenschist-facies retrogression is manifested by coarse epidote after amphibole and weak to moderate chlorite replacement of biotite. Rare leucoxene is observed as an alteration product after very minor ilmenite.



### Figure 5.7: Thin Section Images of Biotite Amphibolite and Massive Amphibolite

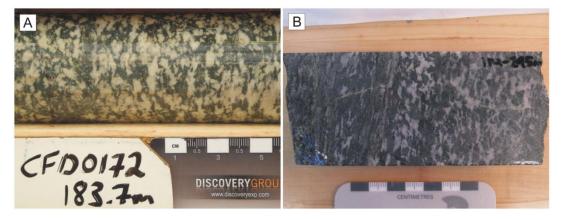
- A. Coarse brown biotite laths and fine-grained green hornblende define foliation through the sample. CFD0082 at 170.6 m, XPL
- B. Same image as (A), PPL
- C. Fine-grained hornblende comprising >95% of the sample is intermixed with fine laths of biotite. Sample is interlayered with coarse metagabbro. CFD0114 at 296 m, XPL.
- D. Same as (C), PPL.

### Amphibolite – Finlayson Assemblage (?)

Amphibolite within the deeper, mafic footwall of the schistose and gneissic package is composed of fine-grained hornblende with varying ( $\leq$ 15%) biotite content. While visually similar to biotite amphibolite found within the upper portions of the schistose panel, biotite content is marginally lower and the rocks are more Mg-rich. Biotite laths within the amphibolite are up to 0.25 mm in size, and minor quartz and fine-grained feldspar is present throughout the rock. In areas of strong retrogression, up to 30% of the biotite is replaced by chlorite, while up to 60% of amphibole is replaced by epidote.

### Interleaved Metagabbro and Amphibolite – Finlayson Assemblage (?)

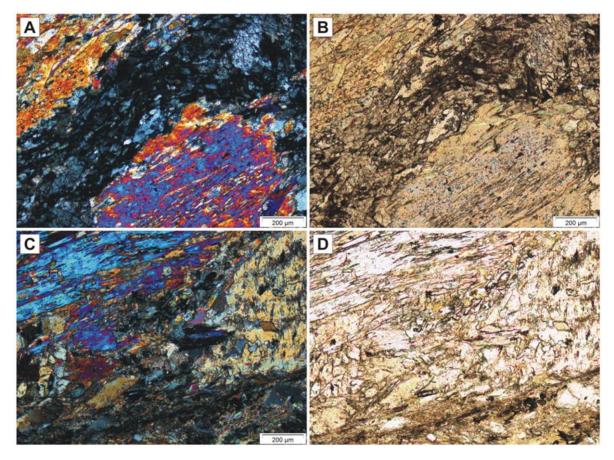
Metagabbro intervals are composed of coarse grained hornblende forming as radiating laths or coarse (3-4 mm) subhedral crystals. These units are variably foliated, with weak to nearly mylonitic fabrics (Figure 5.8). The metagabbros are very Mg-rich, and are interleaved on the metre scale with a geochemically identical amphibolite different to the two previously described.



### Figure 5.8: Drill Core Samples of Metagabbro

- A. Unfoliated metagabbro from CFD0172 at 183.7 m
- B. Variably foliated metagabbro with stronger foliation on left of sample, and coarse domain on right. CFD0114 at 295 m.

Where the unit displays metagabbroic textures, strong greenschist facies retrogression has completely replaced feldspar and amphibole crystals are retrogressively zoned from magnesiohornblende core compositions to actinolitic compositions at grain margins. Where the unit is composed of fine-grained, massive amphibolite, similar zonation is observed, although on a lesser scale. The massive amphibolite is composed of >95% magnesiohornblende to actinolite, with very minor biotite (Figure 5.9; C, D). Trace element geochemical analysis of both units demonstrates that both rocks are from the same source.



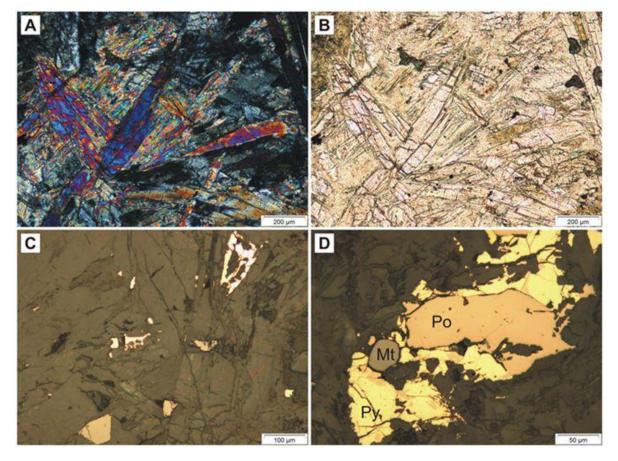
### Figure 5.9: Thin Section Images of Metagabbro

- A. Coarse hornblende crystals with moderate retrogression to actinolite surrounded by chloritecarbonate. CFD0114 at 295 m, XPL.
- B. Same as (A), PPL.
- C. Shredded amphibole crystal with coarse actinolite. CFD0010 at 180 m, XPL.
- D. Same as (C), PPL.

### Ultramafics

Ultramafic rocks are found at the Coffee project as both thin, 1-2 m, highly-deformed talc schists, and as an approximately 20 m thick panel within the Snowcap assemblage schistose rocks at the Latte zone. The thin and highly strained ultramafics are found throughout the schistose-gneissic panel at Coffee and are altered to talc, magnesite, and serpentine. They commonly contain high-chromium magnetite, and sulphides including pyrite and pyrrhotite (Figure 5.10, Figure 5.11).

The 20 m thick panel of ultramafic is found within the west-central region of the Latte zone. This panel is strongly serpentinized and contains coarse high-chromium magnetite, Mg-chlorite, talc, and serpentine (Figure 5.12). The unit is interpreted as a slice of Slide Mountain assemblage serpentinite which was tectonically emplaced during low-angle Jurassic thrust faulting. No mineralization is observed within this unit, although significant mineralization is intersected at the exterior margins of the panel. The ultramafic panel may act as an aquitard to mineralizing fluid at Coffee.



### Figure 5.10: Thin Section Images of Ultramafic Slivers from CFD0035 at 253 m

- A. Laths of actinolite in close association with talc and chlorite, XPL
- B. Same as (A), PPL
- C. Reflected light image of fine sulphides within the ultramafics: visible pyrite and pyrrhotite, RL
- D. Zoom of intergrown pyrite and pyrrhotite with accessory magnetite, RL.



Figure 5.11: Core Box Photo of a Thin Ultramafic Sliver in CFD0164 from 31.8 - 36.14 m

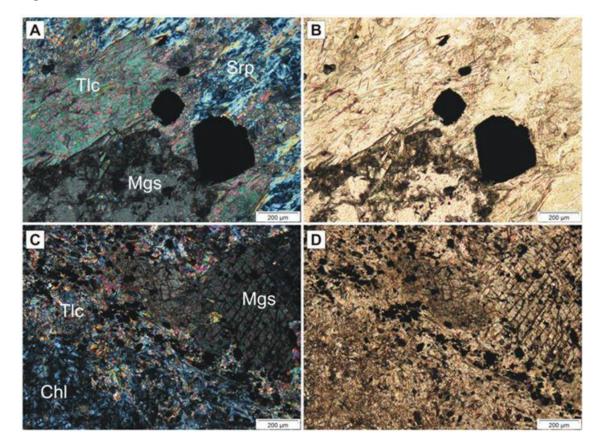


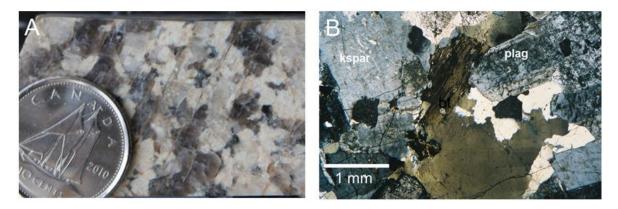
Figure 5.12: Thin Section Images of Serpentinized Ultramafics

- A. Coarse crystals of magnesite rimmed by talc within a serpentine matrix. CFD0082 at 135 m, XPL
- B. Same as (A), PPL
- C. Coarse magnesite crystals with fine sulphide, talc, and chlorite in the groundmass. CFD0113 at 120.4 m, XPL
- D. Same as (C), PPL.

### Coffee Creek Granite – Whitehorse Plutonic Suite

Equigranular granite underlies the southern third of the Coffee project area. This rock consists of coarse plagioclase, potassium feldspar, quartz, biotite, and hornblende (Figure 5.13). The contact between the schistose and gneissic rock panel and the granite itself occurs along the northern margin of the granite on the Coffee Creek fault in the deposit area. Only minor hornfelsing of the schistose and gneissic panel has been observed.

Limited geochemical study of the granite indicates that it is sourced from the same parent melt as a suite of dacitic dykes at Coffee. The granite itself is geochemically constrained as a ferroan, calc-alkalic or alkali-calcic, peraluminous A-type granite.

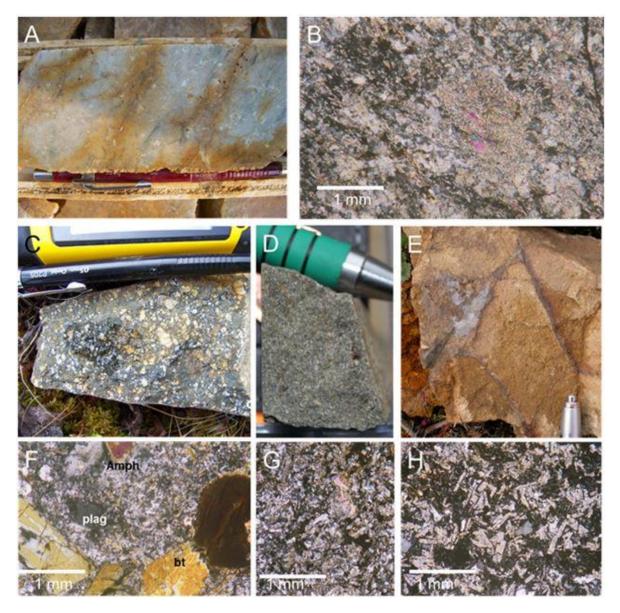


### Figure 5.13: Coffee Creek Granite in Drill Core and Thin Section

- A. Fresh granite exhibiting a weak foliation. Borehole CFD0053 at 128 m
- B. Polished thin section of (A), showing biotite, plagioclase, potassium feldspar, and quartz, XPL.

### Dykes

Dykes of both andesitic and dacitic compositions are found at all gold prospects at Coffee. Andesite dykes are typically aphanitic with feldspar phenocrysts generally 0.3 – 1 mm in size (Figure 5.14). Local and rare andesite porphyries are intersected with euhedral feldspar phenocrysts up to 3 mm in width which are easily visible in hand sample. Preserved feldspar crystals occasionally exhibit polysynthetic twinning. The groundmass of the dykes is extremely fine-grained and contains fine feldspar crystals and a large clay component, dominated by kaolinite. Dacite dykes are almost exclusively aphanitic. Feldspar phenocrysts are rarely visible in hand sample, occasionally reaching 1mm in size (Figure 5.14; A). The dykes are a light grey colour and are usually bleached white by pervasive clay alteration, sometimes obscuring primary igneous textures. Oxidized dacite dykes are easily distinguished by a liesegang-banded oxidation pattern.



### Figure 5.14: Dykes in Grab Samples, Drill Core, and Thin Section

- A. Dacite dyke in drill core. CFD0006 at 68.8 m
- B. Polished thin section of dacite showing fine-grained quartz and sericite. CFD0009 at 27 m, PPL
- C. Feldspar (andesite) porphyry. Collected from a trench in the Supremo area
- D. Diorite grab sample. Collected at 584325mE, 6974769mN
- E. Fluid altered diorite. Collected at 584218mE, 6974489mN
- F. Polished shin section of (C), PPL
- G. Polished thin section of (D), and likely a fine-grained equivalent of (C), PPL
- H. Polished thin section of (E), and likely a fluid altered equivalent of (C), PPL.

### 5.2.2 Structural Geology

Rocks at the Coffee Project were deformed by a series of three YTT-wide tectonic events (Table 7.2). Gold mineralization at Coffee occurred during the Cretaceous event.

 Table 5-2: Tectonic Events at Coffee

Event	Age	Structures	Mineralization
Extension	Cretaceous	Brittle Fractures	Main Coffee Gold
EXICISION	Cretaceous	Dextral normal faults	mineralization
YTT-Laurentia	IT-Laurentia Jurassic	East-west shears and thrust faults	Quartz veining, sericite alteration
Collision		Slices of ultramafic rocks	
Klondike Orogeny	Pre- to late-Permian	Metamorphic gneissosity and schistosity	

Source: Buitenhuis, 2014; Mackenzie and Craw, 2013; Berman et al., 2007

### 5.2.2.1 Metamorphic Foliation

Gneissose and schistose metasedimentary rocks at Coffee contain a shallowly-to-moderately southwest dipping penetrative cleavage, as described for each lithology in section 6.2.1 (S2 foliation of Berman et al. (2007)). The foliation becomes steeper-dipping to the south. Structural data collected from oriented drill core show the following average orientations:

- Supremo: 20-40° dip to the south-southwest (190-230°);
- Latte: 35-55° dip to the south-southwest (180-210°); and
- Double Double: 35-650 dip to the south-southwest (170-200°).

### 5.2.2.2 Jurassic Shearing

As the YTT-Laurentia collision continued and the Slide Mountain Ocean was completely closed, the rocks in the Coffee area developed roughly east-west brittle-ductile shears and younger rocks were thrust north over older rocks. This deformation corresponds to the  $D_3$  deformation of Berman et al, 2007. This deformation is best seen in the more mafic rocks of the southern schistose panel where intervals of mylonitic rocks are traceable between multiple sections.

### 5.2.2.3 Brittle Fracturing and Faulting

Following post-collision uplift and erosion in the YTT, steep-to-vertical brittle fractures and normal faulting affected all lithologies at Coffee. These brittle structures are the hosts to gold mineralization at Coffee. This deformation corresponds to the  $D_5$  deformation of Berman et al. (2007). The faults and fractures are splays of the regional Big Creek fault to the southeast of the property. The faults may have locally followed pre-existing Jurassic shear zones. The faults both deflect along the northern edge of the Coffee Creek granite and cut the granite and therefore are syn-to-post granite emplacement (~98 Ma). Younger dacite and andesite dykes intruded into these brittle fractures.

Gold mineralized structures comprise strike-extensive planar zones exhibiting a continuum of deformation intensity from crackle breccia/stockwork fracture systems through to polyphase high-energy matrix-supported breccias with intensely altered and reworked clasts. Individual mineralized structures exhibit localized flexures, anastomosing patterns and pinch and swell geometries over scales of tens to hundreds of metres. Overall however, gold mineralization, accompanied by elevated arsenic and antimony, wallrock alteration, deformation intensity, the presence of sub-parallel pre-mineralization dykes, and post-mineral oxidation in the upper 0-300 m below surface, display continuity over hundreds of metres in strike and dip, and over 2 km along strike at Supremo T3 and Latte.

Structural measurements of vein orientations and deformation fabrics from oriented drill core provide hard evidence on the structural geometries, but are often not available in the mineralized zones due to the disaggregated nature of fractured and often clay-altered core. Where intact core is able to be measured, various structural fabrics from within mineralized zones are used to measure local orientation of mineralization and guide 3D geometric interpretation of mineralization on section, and from section to section. Fabrics measured include the dominant fracture orientation, internal fracture or shear fabric, breccia margin, and vein or dyke margin orientation.

The planar gold mineralized zones at Coffee exhibit a number of strike orientations, dominated by east-west, north-south, and east-northeast–west-southwest strike directions. Structures typically have sub-vertical dip, with the exception of western Latte which dips 60-70° south.

## 5.3 Mineralization

Exploration drilling completed between 2010 and 2017 led to the discovery of significant gold mineralization in over 19 distinct areas of the Coffee Project: Supremo, Latte, Latte West, Sumatra, Arabica, Double Double, Americano, Americano Central, Americano West, Espresso, Kona, Kona North, Kona Periphery, AmeriKona, Macchiato, Supremiato, Kazaar, Cappuccino, French Press, Dolce, and Sugar. Mineralization textures are described below for the four deposits which comprise the Coffee resources and reserves, namely Supremo, Latte, Double Double, and Kona (Table 7.3).

Zone	Host Rocks	Summary Description
Supremo	Augen Gneiss	Narrow gold-bearing brittle fault structures with gold hosted in intense fracture zones, immature clast supported breccia and in zones of most intense deformation matrix- supported breccia. Mineralization commonly on the margin of and within dacite dykes which intruded along the fracture zones pre- mineralization. Gold mineralization and accompanying quartz-sericite-pyrite alteration associated with later reactivation of structures. Complete oxidation up to 250m below surface.
Latte	Biotite-feldspar Schist, Augen Gneiss	Gold is hosted in zones of brecciation and strong fracturing as well as areas with pervasive sericite alteration and strongly disseminated sulphides. Some high-grade zones associated with quartz vein breccias. Dolomite-illite/sericite-arsenian pyrite sulphidizes foliaform biotite laths. Potential remobilization of gold to other structures. Complete oxidation up to 75m below surface.
Double Double	Augen Gneiss, Biotite- feldspar Schist	Narrow gold-bearing brittle structures hosted in matrix-supported breccia including dacite porphyry fragment breccia. Anastomosing quartz vein networks and microbreccia associated with high-grade. Local intense silicification and strong disseminated sulphide mineralization. Complete oxidation up to 350m below surface.
Kona	Granite	Broad zones of fracture-controlled and disseminated pyrite associated with dacite dykes. Gold hosted in quartz-sericite altered granite. Iron oxides after disseminated pyrite, pyrite veinlets, stockworks and sooty-pyrite rich shear zones.

Table 5-3: Main Mineralized Zones Investigated by Drilling on the Coffee Gold Project Area

Source: Kaminak 2017

#### 5.3.1 Supremo

The Supremo Zone is hosted in the augen gneiss package and consists of a number of interconnected north-to-northeast trending, steeply dipping structures (T1 to T8-9). The structures are variably spaced and are known to splay and merge into one another over their strike length. The geometry of the structural zones is defined by linear gold-in-soil anomalies, topographic lineaments and magnetic linear breaks, and ultimately subsurface via extensive drilling and 3D interpretation of lode geometries supported by oriented core structural measurements.

From east to west the main drill-tested T-structures are: T1 - T2 (1,100 m strike length, open North and South), T3 (>3,500 m strike length, merges with Latte to the south and Supremiato to the north), T4 (1,650 m strike length, merges with T3 to the north and Latte to the south), T5 (1,850 m strike length, open to the north, merges with Double Double to the south), T7 (900 m strike length, open north and south), and T8-9 (~700 m strike length, merges with T7 and Double Double to the south). The T-structure gold corridors are 5 to 30 m wide and mineralized intervals are associated with intense illite, kaolinite, and sericite alteration in addition to abundant (typically oxidized) pyrite.

The gold mineralization at Supremo is generally characterized by two distinct styles: brecciated mineralization and biotite replacement mineralization. The highest grades are associated with polyphase hydrothermal breccias (Figure 5.15, A).

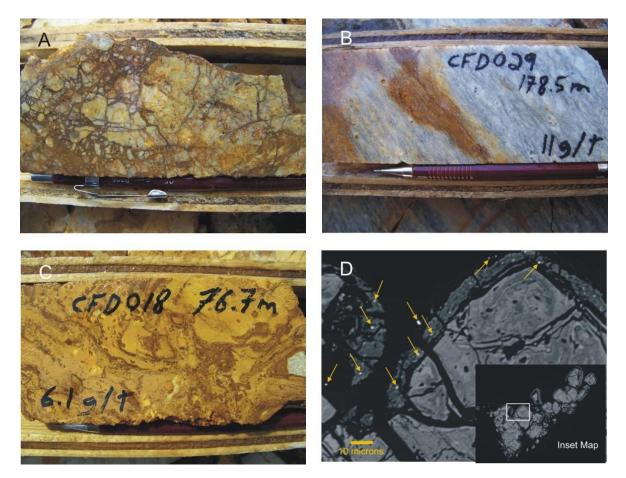
Breccia textures range from mature matrix-dominant phases with rounded fragments to immature wall rock crackle breccias. Matrix compositions range from incompetent limonite-clay material to strongly silicified material. Angular-to-subrounded clasts range from 0.5 to 3 cm in diameter and consist predominantly of highly silicified fragments and subordinate altered wall rock and dacite porphyry fragments. Brecciated clasts occur locally, indicating multiple phases of brecciation.

The lower grade gold mineralization is associated with pervasive hydrothermal alteration of nonbrecciated gneissic host rock. Biotite is pseudomorphously replaced by pyrite and the hydrothermal alteration is characterized by an overall removal of potassium and aluminum with the addition of sulphide, carbonate, and silica (Figure 5.15B).

Andesite and dacite dykes appear to have utilized the same structures as mineralizing fluids, but they are themselves altered and locally auriferous, therefore they predate mineralization (Figure 5.15, C). In other cases, altered dykes with elevated arsenic and antimony are barren. Some dyke margins appear to focus brecciation, potentially due to rheological contrast. The relationship between dykes and the auriferous hydrothermal system remains poorly constrained.

Portable infrared mineral analyser (PIMA), ASD TerraSpec portable infrared mineral spectroscope, and electron microprobe work indicate that illite, kaolinite, and Fe-carbonate comprise part of the alteration mineral assemblage associated with gold at Supremo. Micron-scale gold particles are strongly associated with pyrite and free gold grains are found within the oxidized rims and cracks within pyrite grains, in addition to various growth bands within the pyrite grains (Figure 5.15, D).

The microscopy and microprobe examination also reveal micron-sized crystals of barite associated with gold and trace amounts of iron-barium arsenate, an iron-calcium-silver-phosphorus mineral phase, monazite, and zircon in alteration zones.



#### Figure 5.15: Gold Mineralization Textures at Supremo

- A. Mineralized crackle breccia. Borehole CFD0001, from 19.6 to 20.0 m with 14.35 g/t gold
- B. Pervasively altered, auriferous augen gneiss. Note the "pitted" appearance of feldspar augen. Borehole CFD0029, from 178 to 179 m with 11.0 g/t gold
- C. Mineralized, clay-altered dacite dyke. Borehole CFD0018, from 76 to 77 m with 6.1 g/t gold
- D. Backscatter image of pyrite grain in Supremo breccia showing the extremely fine-grained nature of gold (denoted by arrows) and its association with pyrite. Linear trains of gold grains suggest gold was likely precipitated with pyrite and captured within the pyrite structure and later released during oxidation of the pyrite rim. Borehole CFD0001, from 24 to 25 m with 31.9 g/t gold.

Source: Kaminak 2017

#### 5.3.2 Latte

Drilling across an east-west trend of gold-in-soil anomalies at Latte has intersected gold mineralization 0.5 - 1 m below surficial colluvium and soil (Figure 5.16). Latte consists of a stacked set of moderately to steeply south-southwest dipping, east-southeast striking brittle-ductile structures, whereas the Latte North structure splays off from the main Latte structure and dips moderately to steeply to the southeast with a north-easterly strike. No shear fabric or observable high strain indicators are visible in association with the steep and mineralized Latte structures. Drilling has intersected mineralization at depths of up to 450 m below surface and all structures remain open at depth.



Figure 5.16: Expression of the Latte Structure at Surface Looking East (Section 583250mE)

Source: Kaminak 2016

The western portion of the Latte zone is dominated by broad regions of disseminated mineralization found throughout a wide panel of biotite schist. The western structures strike approximately 100° and contain five or more mineralized shoots which merge and separate along strike. The structures continue to the east and eventually merge into the Connector zone, where the Supremo north-south structures and the east-west Latte and Double Double structures converge. Total traceable length of the mineralized Latte structure is currently in excess of 2,100 m.

Latte North displays identical mineralization textures as the main Latte structure. However, the structures strike at approximately 045° and dip approximately 60° to the southeast. Latte North splays away from the main Latte corridor for a minimum strike length of 275 m.

Latte West refers to the far western extent of the Latte structure, approximately 650 m west of the extreme western limit of the Latte open pit. Mineralization is obscured by a thick colluvial profile, but continues to be oxidized and exhibits identical textures to those seen at Latte North and the main Latte lodes.

Mineralization at Latte consists of disseminated gold-bearing arsenian pyrite, overprinted by later brecciation and late fluid ingress (Figure 5.17). Mica-rich rocks are the main host for gold, with a three phase mineral reaction resulting in gold precipitation. Gold-bearing mineralizing fluid rich in  $CO_2$ -As-Sb and S reacted strongly with Fe-bearing biotite within the biotite schist at Latte. A sulphidation reaction proceeds, in which Fe within the biotite is leached to form fine-grained arsenian pyrite, illite, and dolomite which pseudomorphously replace the parent biotite grain (Figure 5.18). Titanium within the parent biotite is removed and incorporated within hydrothermal illite and rutile.

In high-grade intervals, this reaction has ran to completion with no biotite preserved. Areas which did not experience the same levels of fluid-rock interaction retain relict biotite laths.

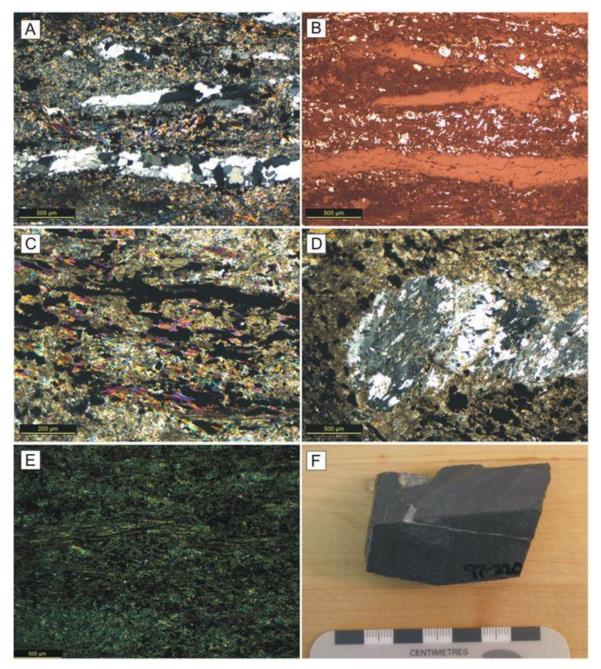


Figure 5.17: Disseminated Mineralization within the Latte Zone

A. Finely disseminated arsenian pyrite along relict micaceous foliation. CFD0164 at 464 m, XPL Same as A, RL

- Detail of sulphidized mica with fine arsenian pyrite along relict foliation planes. CFD0164 at 469 m, XPL
- C. Relatively fresh feldspar porphyroblast surrounded by sulphidized mica and dolomite. CFD0164 at 469 m, XPL
- D. Strong disseminations of fine-grained arsenian pyrite. CFD0097 at 220 m, XPL
- E. Meta-basalt (fine grained amphibolite)
- F. Hand sample image of E
- Source: Kaminak 2016



Figure 5.18: Simplified mica sulphidation reaction

Brecciated intervals are common at Latte, with fine sulphide and clay minerals forming the matrix to angular-to-subrounded clasts of wall rock. These "sulphide-matrix" breccias are generally immature and usually appear as concentrations of very fine "sooty" arsenian pyrite with a steel grey colouration (Figure 5.19). Sulphide content within the matrix of these breccias can be  $\geq$  20%. These brecciated intervals are best preserved at depth, where oxidative meteoric fluids have not completely altered the matrix to clay and oxidized the contained sulphides. Thin quartz-carbonate veinlets containing extremely fine gold-bearing arsenian pyrite along their margins are interpreted to be of the same phase as the sulphide-matrix breccias.



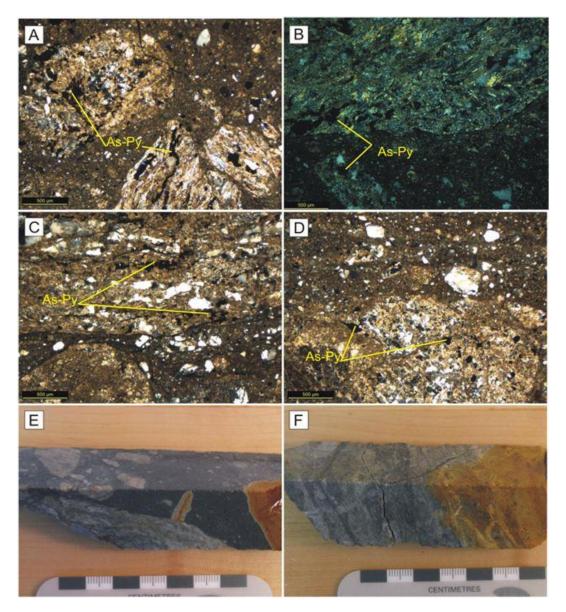
Figure 5.19: Core photographs of Latte Zone Pyritic Faults and Sulphide-matrix Breccia

- A. Pyritic fault in CFD0169 at 237.8 m
- B. Sulphide-matrix breccia from CFD0010 at 122.2 m.

Source: Kaminak 2016

Late breccias are also common, with angular-to-subrounded clasts of mineralized wall rock set in a matrix of rock flour and silica (Figure 5.20). These breccias can be greatly comminuted and locally polyphase.

Within the lower mafic footwall at Latte, amphibole-rich rocks are dominant. Mineralized intervals within this panel are usually restricted to narrow, generally high-grade intersections which represent thin slivers of biotite schist hosted within amphibolite. Amphibole-dominant host rocks do not react with the mineralizing fluid, impeding wall rock sulphidation. The interconnectivity of biotite laths within the schistose rocks promotes reactive fluid flow; laths act as a channel for the sulphidizing fluid, which pervades throughout the schistose host and reacts with the biotite.



#### Figure 5.20: Late Brecciation of Mineralized Intervals at the Latte Zone

- A. Clasts of mineralized wall rock hosted by a super-fine rock flour/silica matrix. CFD0114 at 162 m, XPL
- B. Same as A, XPL
- C. Breccia corridor with super-fine rock flour/silica matrix and mineralized clasts of wall rock. CFD0097 at 30 m, XPL
- D. Same as C, XPL
- E. Hand sample of A, B
- F. Hand Sample of C, D.

Source: Kaminak 2016

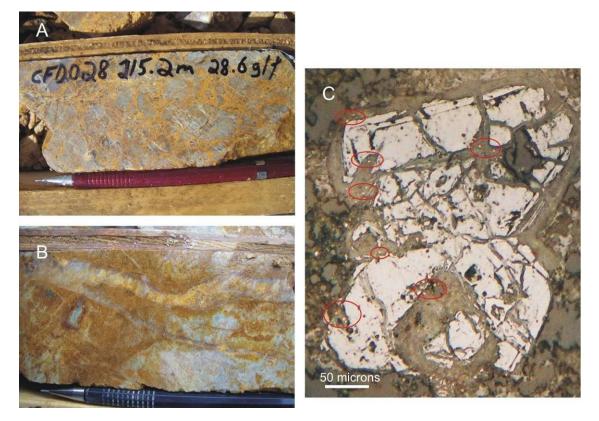
#### 5.3.3 Double Double

The Double Double zone trends east-northeast with a known strike length of 600 m. It dips steeply to the north and consists of a number of discrete, high-grade strands of mineralization up to several metres wide. Host rocks are augen-bearing gneissic rocks with interleaved biotite-feldspar-quartz (± muscovite ± amphibole) schist. The gold mineralization at Double Double is structurally controlled, and may be associated with a north-easterly trending splay off the main Latte structure. Exploration in 2016 to the east of the Double Double zone confirmed the presence of a structure trending eastwards towards the Arabica zone. While narrow (3-5m) and weakly mineralized, the mineralized intervals indicate that the structural corridor continues for at least an additional 600 m to the east as expected.

Gold-rich intervals at Double Double are characterized by relict schistose to mylonitic textures overprinted by mottled silica and sericite alteration in addition to limonite-filled micro fracture networks and oxidized pyrite cubes. Breccia domains locally exceed 50% by volume within gold zones, characterized by silicified fragments as well as strongly altered wall rock and porphyry dyke clasts (Figure 5.21; A).

Some of these fragments exhibit rounding and imbrication in addition to textures consistent with re-fragmentation of earlier breccia events (i.e. polyphase breccia). Networks of anastomosing chalcedonic silica veins with local microbreccia domains within the veins have been noted in the high-grade intervals (Figure 5.21; B).

Similar to the Supremo zone, gold at Double Double is micron-scale, and illite has been detected by infrared spectroscopy within the mineralized intervals (Figure 5.21; C). Other alteration minerals observed at Double Double include sericite, epidote, leucoxene, hematite, and carbonate.



#### Figure 5.21: Gold Mineralization Textures at Double Double

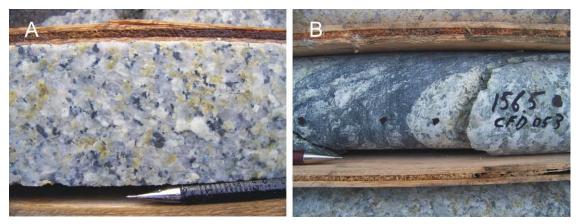
- A. Cement supported silicified-clast breccia. Borehole CFD0028, from 215 to 216 m with 28.6 g/t gold
- B. Silica vein network cutting intensely silicified host rocks. Borehole CFD0090, from 105 to 106 m with 120.25 g/t gold
- C. Micron-scale gold (circled in red) associated with fractures within pyrite and pyrite grain rims. Borehole CFD0027, from 156 to 157 m with 14.75 g/t gold.

Source: Kaminak 2017

#### 5.3.4 Kona

The Kona zone is hosted within coarse grained equigranular biotite monzogranite, and consists of 1-3 east-northeast trending, steeply south-dipping fault structures. The gold structures are associated with narrow, less than 5 m wide, sparsely feldspar phenocrystic to aphanitic andesite to dacite dykes. The Kona resource is contained within a 400 m long portion of the structure, which continues along the east-northeast trend and connects with the Espresso zone to the west. In addition, the structure continues to the east for an additional confirmed strike length of 500 m. Both ends of the structure remain open.

Drilling in the Kona zone encountered both biotite replacement and breccia hosted mineralization within the Coffee Creek granite. Alteration typically consists of sericite, clay and limonite, with illite being detected during reconnaissance PIMA work at Kona. Sulphide is dominated by sooty arsenian pyrite, which typically replaces ferromagnesian minerals (Figure 5.22; A), and also occurs as veins/veinlets or fracture fill, and in sulphide-matrix fault breccias (Figure 5.22; B).



#### Figure 5.22: Gold Mineralization Textures at Kona

A. Quartz-sericite altered granite; with sulphide mineralization (steel grey mineral) replacement of amphibole and biotite. Borehole CFD0053, from 172 to 173 m with 9.54 g/t gold

B. Sulphide-matrix fault breccia cutting granite. Borehole CFD0053, from 156 to 157 m with 0.94 g/t gold.

Source: Kaminak 2016

#### 5.3.5 Kona North

Kona North is located 850 m north of the Kona resource, hosted within the Coffee Creek granite. The deposit lies just south of the contact with the schistose package to the north, and comprises a main lode of mineralization with two parallel stacked structures. The structures trend east-west and dip steeply to moderately to the south, with a total strike length of ~400 m currently open to both the east and west.

The deposit was first drilled in 2010 in order to investigate a large Au-in-soil anomaly which was unsuitable for both heli-portable and excavator trenching due to steep topography and unstable talus slopes. Diamond drilling intersected intense silica-sericite-clay alteration and fine-grained pyrite replacing mafic minerals. Minor pyrite stringers, sulphide-matrix fault breccia, and clots/dissemination and veins of stibnite were also noted. The mineralized structures appear to

crosscut the contact between the granite and the schist, however gold grades were found to be notably lower within the schistose rocks despite intense alteration.

Subsequent drilling in 2014-2016 intersected gold mineralization hosted within the granite south of the contact with schistose rocks, and step-out drilling delineated a steep-moderately south dipping zone of mineralization which is variably oxidized to a depth of approximately 50 m.

## 5.3.6 Americano, Americano West and Espresso

The Americano area is underlain by granite and comprises two parallel northeast trending linear gold-in-soil trends totaling more than 4 km in length. These two trends become linked to the east by a north by northeast trending gold-in-soil anomaly informally known as the Americano "Link" structure.

Widely-spaced boreholes were drilled at Americano in 2010–2011 in order to test for the presence of steeply-dipping gold-bearing brittle structures analogous to the nearby Kona gold zone. The Espresso zone is located between Kona and Americano, associated with a large gold-in-soil anomaly. This area was tested with limited drilling in 2010, and reconnaissance drill testing beneath at Americano West in 2011. Drilling yielded several narrow gold intervals.

Both Americano and Espresso were revisited in 2016 during the scout RC program. Confirmation drill fences at Americano were drilled both to step back on 2010 diamond holes that were thought to have been too choked-up on the mineralized structures, and to provide additional constraints on the geometry of the Link structure. Widely spaced step out drill fences identified two east-northeast trending, roughly parallel limbs at Espresso: the North Limb and South Limb, with current strike lengths of ~900 m and 650 m respectively.

Gold zones drilled at Americano and Espresso are hosted in sulphidic and clay-altered brittle fault zones crosscutting granite, similar to the Kona zone. The Americano West area is underlain by equigranular granite and the gold-bearing intervals are characterized by silica-sericite-clay alteration and fine-grained pyrite replacing mafic minerals. Minor pyrite stringers, sulphide-matrix fault breccia, and clots/dissemination and veins of stibnite were also noted at Americano West.

## 5.3.7 Macchiato and Supremiato

The Macchiato zone is an east-northeast trending mineralized structure located approximately 800 m to the northwest of the northern boundary of the Supremo T3 planned pit. The structure was explored in 2011 and 2013 with a total of 5 diamond drill holes. The structure appears to dip steeply to the south, and trends eastwards into and intersects with the northern extension of the Supremo T3 structure (T3 North). The interpreted intersection zone is named Supremiato.

Drilling in the 'Supremiato' area in 2016 intersected mineralization consistent with textures found at both Macchiato and T3 North: strongly disseminated arsenian pyrite within augen-bearing gneiss and minor schist in addition to silicified clast breccias and late calcite veining.

Somewhat erratic structural measurements in the current drill holes (breccia walls and dacite dykes) support the model of a highly disturbed and complex structural geometry. Despite the inconsistent nature of measured orientations on a small scale, drill intercepts of dykes and breccia across holes tend to indicate a NW trend. The intersection of the overriding structures (Macchiato, T3 North) may lead to localized structural dilation, providing a dense fracture network amenable to mineralization. The exact intersection lineation zone has not yet been tested, however 3D modelling of mineralized intervals suggests a stacked set of north-south

trending, near-vertical structures which extend on either side of the intersection, in addition to a steeply south dipping structure to either side of the intersection.

## 5.3.8 Cappuccino

The Cappuccino zone, located 2 km northeast of the Supremo Zone, is hosted by the augen gneiss host rock package with significant gold intervals intersected at Cappuccino during diamond drilling in 2014. Significant gold intervals at Cappuccino are characterized by thin (3-5 m) zones of intensely and tightly packed disseminated arsenian pyrite. Minor crackle breccias with silica-limonite or clay cement were observed in addition to silica-limonite vein and veinlet networks cutting strongly altered host wall rock. Numerous east-northeast trending structures were observed, dipping steeply to the south. The mineralization style encountered at both Macchiato and Cappuccino is very similar to that observed in the Supremo Zone.

### 5.3.9 Sumatra

The Sumatra zone is located to the north of the Latte zone along the contact between the augen gneiss and biotite-feldspar schist. Mineralization occurs within two separate structures which underlie a broad ENE-trending soil anomaly. The first structure dips steeply (near-vertical) to the northwest, gradually reclining to an approximate dip of 60° through the middle portion of the corridor, and finally steepens in the eastern portion of the structure. The second structure strikes approximately E-W and dips roughly 70° to the south. These structures intersect at 583350mE, forming an hourglass-like structure.

Mineralization consists of strong disseminations of arsenian pyrite along relict schistose fabric in addition to clay-altered and heavily oxidized breccias. Multiple phases of brecciation are preserved in some intervals. Some mineralized intervals preserve schistose fabric, while others are heavily altered to the point of fabric destruction.

## 5.3.10 Arabica

Arabica is located to the east of the Supremo T-structures and is hosted within the augen gneiss panel. Mineralization is hosted within felsic gneiss and local, thin intervals of biotite schist. RC drilling during the 2013 field season identified strong limonite-hematite oxidation in addition to silicification within the mineralized intercepts.

Drilling and trenching at Arabica has identified a complex structural zone with three major overriding orientations: north, northeast, and east-northeast trending. All three orientations appear to influence mineralization in the zone, as the Double Double structure extends nearly a kilometer from the eastern termination of the Double Double pit into Arabica. This structure appears to interplay with the additional two orientations, with potential for significant complexity at the intersection.

Mineralization textures are identical to those observed at the Supremo T7 zone: thin, high grade intersections of strongly disseminated arsenian pyrite along host-rock foliation, with minor intervals of brecciation and clay alteration. Nearly all mineralized intervals discovered to date are fully oxidized to deep red coloured hematite.

#### 5.3.11 Ristretto

The Ristretto prospect is located approximately 1.8 km northeast of the proposed Supremo-T7 pit on the northern flank of the Supremo massif. It is also adjacent to the Cappuccino and French Press prospects which are located to the NW and NE respectively. The prospect is anomalous amongst other areas of the Coffee property in that the mineralization style observed within the prospect is unique and has not been recognized in any other mineralized zone. In addition, mineralization at Ristretto does not provide a measureable or significant soil response.

Mineralization at Ristretto is described as a series of discontinuous shear hosted boudinaged lenses (or pods or lozenges) of silica-flooded felsic gneiss and accompanying breccia zones with Cu-oxides and mimetite (Pb-As chloroarsenate) on fracture surfaces. Strike continuity of this prospect is not fully understood, however the largest excavated lens of mineralization to date is measured to be at least 15m long by 4m wide. Mineralized intercepts discovered in trenching to date broadly trend in an east-west direction.

#### 5.3.12 Sugar

The Sugar area is located in the southeastern area of the Coffee project, 22 km southeast of Supremo and 12.5 km south-southeast of the Coffee project camp. Drilling tested the five largest soil anomalies greater than 100 parts of gold per billion over an area roughly 3.5 by 1.5 km.

The geology of the Sugar area is comprised of intermediate intrusions of various affinities. The most prevalent unit is a multi-phase, equigranular, medium grained granodiorite to quartz monzodiorite. This unit is intruded by two porphyritic units: a hornblende-phyric medium-grained granodiorite, and a plagioclase-hornblende porphyry. These units are in turn locally intruded by aphanitic mafic dykes. Additional volumetrically minor units include small diorite and tonalitic dykes and rafts of metasedimentary rocks. The host granodiorites abut the biotite schist package to the north of the Sugar area; although preliminary evidence suggest a fault contact (observed in SGD0010), the nature of the contact remains unresolved.

Mineralization at Sugar is comprised of sooty pyrite  $\pm$  arsenopyrite  $\pm$  pyrrhotite  $\pm$  stibnite in quartz-carbonate veins, silica sericite minor chlorite and clay salvages on the contacts of some of the veins. Further infrared spectroscopy work has since determined the clays are predominantly kaolinite and illite. These veins or vein sets are subvertical and east-west oriented.

## 5.4 Coffee Weathering Profiles

The mineralized structures at the Coffee Project have undergone extensive preferential weathering and oxidation of iron-bearing minerals as a result of meteoric fluids percolating from surface downwards through the permeable structural corridors. Conversely, unfractured and unaltered country rock is typically fresh (unoxidized) at surface. As a result of this preferential weathering, oxidation is channelized along the structural corridors. Oxidation of mineralized intervals resulted in the breakdown of arsenian pyrite to Fe-oxides such as limonite and hematite. Gold which was structurally bound within the arsenian pyrite coalesces into micron-scale nuggets, which enables rapid and complete gold recovery cyanide leaching.

Oxidation appears to be channeled along the structural corridors that host the deposits. It is common to find intense oxidation at depths below 200 m from surface within these structures. Strong oxidation is present over the majority of the Supremo deposit, but it is less pervasive and

more variable at Latte, Double Double, and Kona. As a result, transitional facies material forms a larger proportion of the Latte and Double Double deposits than in Supremo. Outside the interpreted mineral domains, rocks show only weak signs of near-surface oxidation.

### 5.4.1 Oxide Categorization

Five oxide types or domains, listed below, are designated based on metallurgical test work.

- Oxide zone: intense to pervasive oxidation (>90% oxidation);
- Upper Transition zone: moderate to intense oxidation (70-90% oxidation);
- Middle Transition zone: moderate oxidation (50-70% oxidation);
- Lower Transition zone: weak to moderately oxidized (10-50% oxidation); and
- Sulphide zone: fresh to weakly oxidized rocks (<10% oxidation).

### 5.4.2 Cyanide Solubility Analyses

In 2013, a comprehensive cyanide shake test re-assaying program was implemented to systematically measure cyanide solubility of gold, which provides a proxy of the degree of oxidation within mineralized rocks at Coffee. Specifically, in addition to measuring the potential cyanide gold leach characteristics of the rocks, the ratio of cyanide soluble (AuCN) gold to total gold (from fire assay) provides information regarding the degree of oxidation.

Cyanide shake tests were conducted on a series of pulp rejects retained from previous drilling campaigns. In many of these older drill holes, AuCN results are available for only select samples. However, beginning in 2013 cyanide shake testing was routinely performed on all drill holes on a sample-by-sample basis, providing a resolution of 1m in diamond drill core and of 1.5 m in reverse circulation chips. The effective lower detection limit for cyanide shake tests is 0.3 g/t Au, making it only possible to determine the percent recoverability of mineralized samples. This limitation results in tightly constrained recoverability estimates within the mineralized portion of structures.

## 5.4.3 Three-Dimensional Modelling of Oxidation Surfaces

As described above, Kaminak has conducted cyanide shake testing on the majority of sample intervals that exceed a total (fire assay) gold grade of 0.3 g/t. These data are reasonably distributed but, because they exclude lower grade sample intervals, they are not sufficient to support direct estimation of AuCN estimates in the resource block model. As an alternative, the ratio of AuCn: total Au was calculated in samples where AuCN data are present. These ratios are then interpolated in the block model and are used in combination with qualitative (visual) estimates of the intensity of oxidation to provide information regarding the depth and intensity of oxidation Based on this information, domains have been interpreted that represent the physical distribution of the five oxidation types described previously.

Outside the mineral domains, there is little to no cyanide soluble sample data to assist in defining oxidation states. The type of oxidation present outside the mineral domains is interpreted based on visual observations during drill core and chip logging.

## 5.5 Three-Dimensional Modelling of Gold Mineral Domains

Gold mineralization at Coffee Gold Project is located within a series of steeply dipping structures that cross-cut all rock units on the property. The structural zones are identified in drill core and

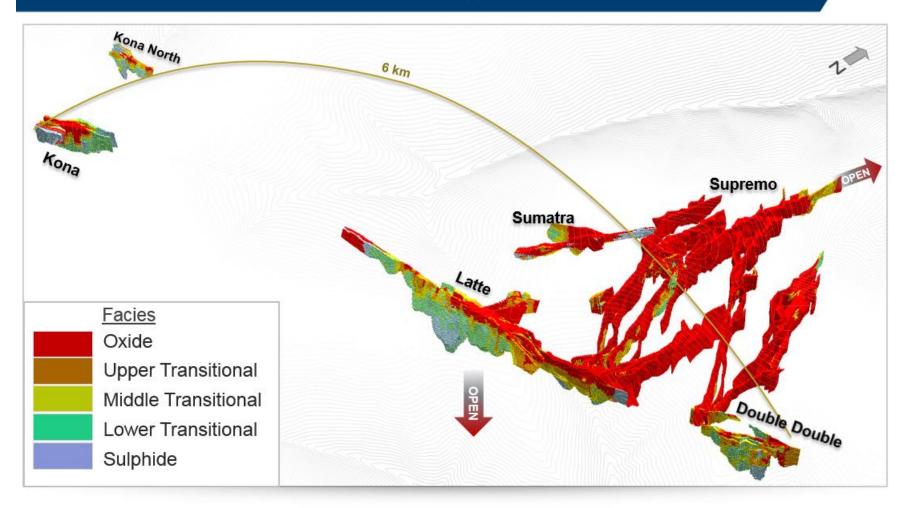
from surface mapping and trenching. Soil sampling has also located gold-in-soil anomalies in many areas which were subsequently drilled. Although these structural zones may exhibit faulting, brecciation, silicification, alteration, and local sulphide veining, they can be traced over strike lengths of up to 3.5 km.

Kaminak geologists interpreted a series of "mineralized" or "mineral" domains in each resource area using a combination of surface mapping, drill hole core (and reverse circulation chips) logging, and the distribution of gold grades in drill hole sample data. These domains encompass rocks that exhibit the potential to host gold mineralization and, in most cases, contain elevated gold grades. In previous resource estimations, interpreted "structural" domains relied primarily on geologic conditions that were favourable to potentially host gold mineralization. These domains locally included areas that did not contain appreciable quantities of gold. With the increased density of drilling, resulting from drill holes added during the June 2014 to June 2015 infill drilling program, the confidence in the continuity of gold mineralization between drill holes has increased and the interpretation of these domains now targets the presence of gold mineralization generally above a threshold grade of 0.1 g/t Au. This resulted in a change to the naming convention for domains; previous "structural" domains are now referred to as "mineral" domains.

The distribution of the mineral domains is shown in Figure 5.23. The individual areas at Supremo, (T1, T2, T3, T4, T5, and T7) are named after the trenches that were initially used to investigate the surface mineralization in these areas.

In addition to the aforementioned mineral domains, 3D modelling is routinely completed by the Coffee geological team for all drilling targets which are potential candidates for additional drilling in support of Inferred resource classification. Models are built with Leapfrog Geo 3D software for the Arabica, Supremiato (Figure 5.24), Supremo T8-T9 zones, Decaf and AmeriKona zones. These models aid in planning additional exploration and influence decisions regarding additional drilling to allow for maiden Inferred resources at each zone.

# Coffee Resource Block Model (Oxide Facies)



#### Figure 5.23: Distribution of Mineral Domains

Source: SIM Geological 2016

#### GOLDCORP INC. 2017 COFFEE GOLD EXPLORATION ASSESSMENT REPORT

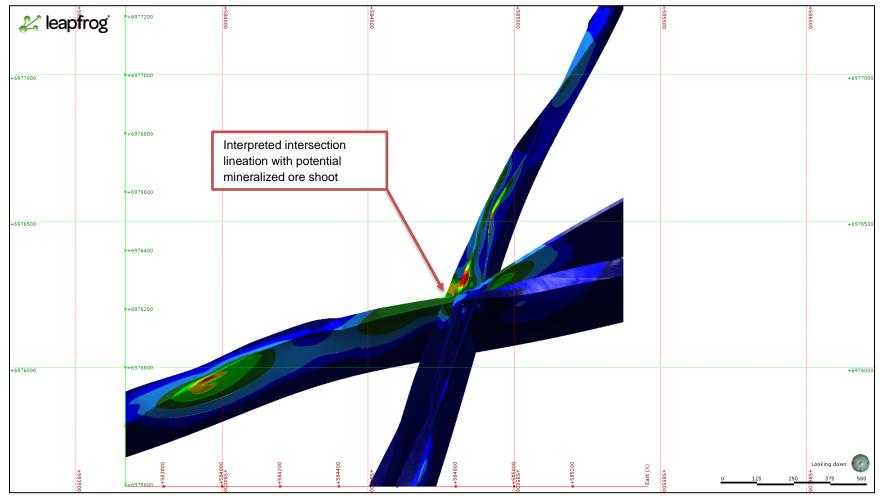


Figure 5.24: Leapfrog 3D model of the Supremiato Zone. Looking down.

Source: Goldcorp 2017

## 6 Deposit Types

The Coffee Gold deposit is hydrothermal in origin, structurally controlled and characterized by elevated As and Sb,  $\pm$  Ag, Bi, U, Hg and Ba. Coffee is interpreted to represent a shallow-level (epizonal) structurally controlled orogenic gold deposit (Buitenhuis et al., 2015; Buitenhuis, 2014; Allan et al., 2013) based on the following criteria:

- 1. Although mineralization spatially coincides with the Coffee Creek Pluton and intermediate to felsic dykes there is no evidence for direct connection between hydrothermal fluids and a magmatic source;
- 2. There is a spatial and temporal relationship to other mid-Cretaceous gold systems within the wider Dawson Range (e.g. Boulevard and Moosehorn, McKenzie et al., 2013; Joyce, 2002);
- 3. There is a lack of vertical alteration or metal zoning;
- 4. Mineralization occurs within subsidiary structures associated with the regional scale Coffee Creek –Big Creek fault system; and,
- 5. The deposit is characterized by a strong Au-As-Sb association that is typical globally of many orogenic gold deposits.

Recent work in the Dawson Range has demonstrated that both the nearby Boulevard gold showing (10km southwest of Coffee) and the Golden Saddle deposit (40km north of Coffee) are orogenic gold systems (Allan et al., 2013; Bailey, 2013; and McKenzie et al., 2013). Detailed study of the Latte gold zone suggests that Coffee is a shallow (epizonal), brittle stage orogenic gold deposit (Buitenhuis, 2014; Allan et al., 2013). The fluid responsible for mineralization at Latte can potentially be modelled as a cooler (220-250°C), shallow equivalent of mineralizing fluids responsible for gold mineralization at Boulevard.

A possible paragenetic model proposed by Buitenhuis et al. (2015) comprises regional CO2-rich fluid flow powered by the anomalous geothermal gradient, which was caused by the rapid unroofing of the Dawson Range rocks in the mid-Cretaceous. This fluid formed sheeted quartz veins within the mesozonal domain at Boulevard, where the base metal and silica content of the fluid was depleted during vein formation. Continued uplift drove base metal depleted fluid upwards into the epizonal domain where it was controlled by the structural framework of the Coffee fault system and reacted with favourable host lithologies. The fluid travelled along brittle structures and deposited gold-rich arsenian pyrite within schistose rocks through sulphidation, and high-energy pulses formed gold-rich hydrothermal breccias in brittle hot lithologies.

The timing of gold mineralization at Coffee has been constrained by  ${}^{40}$ Ar/ ${}^{39}$ Ar dating on fine grained, mineralization-phase sericite within altered schist at the Latte zone to 96.8 ± 1.2Ma. This age indicates mineralization occurred post-emplacement of the Coffee Creek granite (~100Ma), and indicates Coffee was active within a similar time domain as other mid-Cretaceous mineralizing events in the Dawson Range. Examples include Boulevard (95.9 ± 0.4Ma), Toni Tiger (95.0 ± 0.4 Ma) and Moosehorn-Longline (92-93Ma).

## 7 Exploration

Kaminak carried out exploration on the Coffee property over the course of seven separate and consecutive field seasons from 2009 to 2015. Exploration carried out from 2009 to 2013 is summarized in detail in previously published technical reports (Couture and Siddorn, 2011; Chartier and Couture, 2012; Chartier et al., 2013; Sim and Kappes, 2014; Makarenko et al., 2014) and described briefly in Table 7-1. Work completed after the 2014 Preliminary Economic Analysis, during the 2014 and 2015 field seasons in support of the Feasibility Study, is described in Doerksen et al, 2016). Work completed in 2016, including programs undertaken by Kaminak before the Goldcorp acquisition, and by Goldcorp post-acquisition, is described in the 2016 internal annual technical report. Exploration activities conducted in 2017 are described below.

			Coffee Expl	oration Sum	mary by Yea		
Year	Drill (m)	Soil Samples	Trenching (m)	Trench Samples	Mapping and Sampling (days)	Geophysics	Geomorphology
2009	N/A	3,876	4,164	828	10	261 line-km ground magnetic survey	N/A
2010	16,105	8,851	4,470	826	10	579 line-km ground magnetic survey	N/A
2011	47,990	10,689	3,926	799	15	4,842 line-km airborne magnetic and gamma-ray spectrometric; 15.9 line-km HLEM and Ohm mapper surveys	Mapping
2012	65,548	4,438	N/A	N/A	40	N/A	N/A
2013	55,477	5,027	153	147	2	18 days of IP	N/A
2014	52,760	2,955	6,252	2,025	30	5,300 line-km airborne magnetic infill survey	N/A
2015	41,895	N/A	N/A	N/A	30	N/A	N/A
2016 KAM	7,469	1,072	1,277	472	14	-	-
2016 Goldcorp	20,074	-	-	-	-	-	-
2017	69,232	2,953	99	36	2	221 line-km ground geophysical orientation surveys, 189 line-km airborne geomagnetic surveys	N/A
Totals	376,550	39,861	20,341	5,133	153	N/A	N/A

#### Table 7-1: Previous Exploration Work Completed by Kaminak

Source: Kaminak 2017

## 7.1 2017 Exploration Activities

## 7.1.1 Soil Sampling & New Conceptual Targets

GroundTruth Exploration Ltd. was contracted to complete the 2017 C-horizon soil sampling program at Coffee, aimed to collect 3,000 samples, in an effort to extend previous soil grid(s) (Figure 9.1). A late program start, and poor weather (snow, low visibility), resulted in lower sample production than anticipated. As such, a total of 2,953 samples were successfully collected, with remaining samples to be collected during the 2018 field season. Initial analysis identified four areas of interest which are presented below. These areas illuminated extensions of known soil anomalies and potential new discoveries, which will constitute a catalyst of understanding for the 2018 generative program (Figure 7.1).

## 7.1.1.1 Robusta Trend (new area)

2.7 km x 2.3 km area sampled on 50 m x 200 m grid to test the western extent of Kazaar and the fertility of a set of 3.5 km northeast trending aeromagnetic lows which persists across topography, geology and runs parallel to Independence Creek Fault. Grid soil sampling confirmed consistent +50 ppb Au (up to 250 and 313 ppb Au and As, respectively), along a 1.7km E-W trend. Of note is that the northeastern limits of the 3.5 km northeast trending aeromagnetic lows terminate along a coincidental anomalous soil sample of 250 ppb Au seen in Figure 9.1 (Blue text). The elevated Au-As anomalism remains open along-strike of both identified trends.

## 7.1.1.2 Denali Extension (new area)

Independence Gold (IGO.v, Goldcorp 19.9% interest) collected 2,338 soil samples across 15 km x 20 km area to infill existing trends and test the extent of known Sunrise/Sunset and Denali zones. Grid soil sampling confirmed consistent + 15 ppb Au along a 1.5km NW-SE trend. Interestingly, once geochemical soil dataset is displayed with traditional Coffee soil tenor threshold values, numerous anomalous soils become normalized to background Au levels. This normalized soil tenor is mainly observed in the Sunset zone in which numerous soils become normalized to background Au levels. The Denali zone remains prospective along strike and extends into Coffee property seen in Figure 7.1 (Blue text).

## 7.1.1.3 Coffee Sunrise Connection (new area)

A 2.9 km x 8.8 km area was sampled on 50 m x 200 m grid to test the southern extent of the Coffee mineral system. The soil extension grid illuminated a discontinuous + 30ppb Au 400m x 800m trend (up to 150 Au ppb). This trend contains prospective attributes due to its spatial proximity to the Coffee and Independence Gold mineral systems, seen in Figure 7.1 (Blue label).

## 7.1.1.4 Coffee Southeast (new area)

A 2.3 km x 10.0 km area located south of the main Coffee deposit was sampled on 50 x 200m grid to test for potential auriferous structural splays from the Coffee Fault (see Figure 7.1 for location). The soil extension grid illuminated a semi-linear +15ppb Au 1.9 km trend, including a high tenor sample of 479ppb Au. The NW-SE trending soil anomaly appears to persist across contours and is semi-contiguous with a

general NW-SE aeromagnetic fabric. The trend is consistent with a possible horsetail splay off the Coffee Fault, linking with the Java-Mocha geochem target.

#### 7.1.2 Biogeochemical Sampling

Geochemistry of C-horizon soils has proven to be an extremely useful exploration technique at Coffee. However, in certain areas C-horizon soils cannot be accessed for sampling due to thick organic cover or permafrost, mostly on N facing slopes or near valley bottoms. Therefore, an alternate sample media was evaluated that consisted of; Black Spruce needles, twigs and bark Betula Nana (Dwarf Birch) leaves and twigs, Mountain Alder leaves and twigs.

A total of 561 biogeochemical samples were collected across two areas of interest, Western Latte and Kazaar, in efforts to highlight mineralized bedrock atop traditional anomalous C-horizon samples and normalized background C-horizon samples. Black Spruce needles appear to represent the strongest correlation of anomalous Au values as a direct detection of bed rock mineralization, further investigation is required to increase geological confidence in biogeochemical and bedrock interactions. Results revealed anomalous biogeochemical values atop known anomalous and non-anomalous C-horizon values that correspond to bedrock mineralization, Figure 9.1.2.

#### 7.1.3 Trenching

#### 9.1.4.1 Arabica

A single trench, a re-excavation of 2016 trench AR14-04, was completed at the Arabica prospect with the objective to provide further near-surface structural information for guiding planned exploratory drilling programs. Trench AR17-01 was laid out by Kaminak geologists and excavated by a 320 Caterpillar excavator operated by JDS. Bedrock was successfully reached throughout the length of the trench, and two narrow zones of weak oxide gold mineralization were intersected; 1.36 g/t Au over 4 meters, and 0.92 g/t Au over 2 meters. However, no clear structural trends could be assigned to these intercepts.-. (Figure 9.3)

#### 7.1.4 Mapping and Prospecting

Kaminak geologists completed prospecting and rock grab sampling at the Double Double south prospect located south of the Double Double deposit within the Coffee Property.

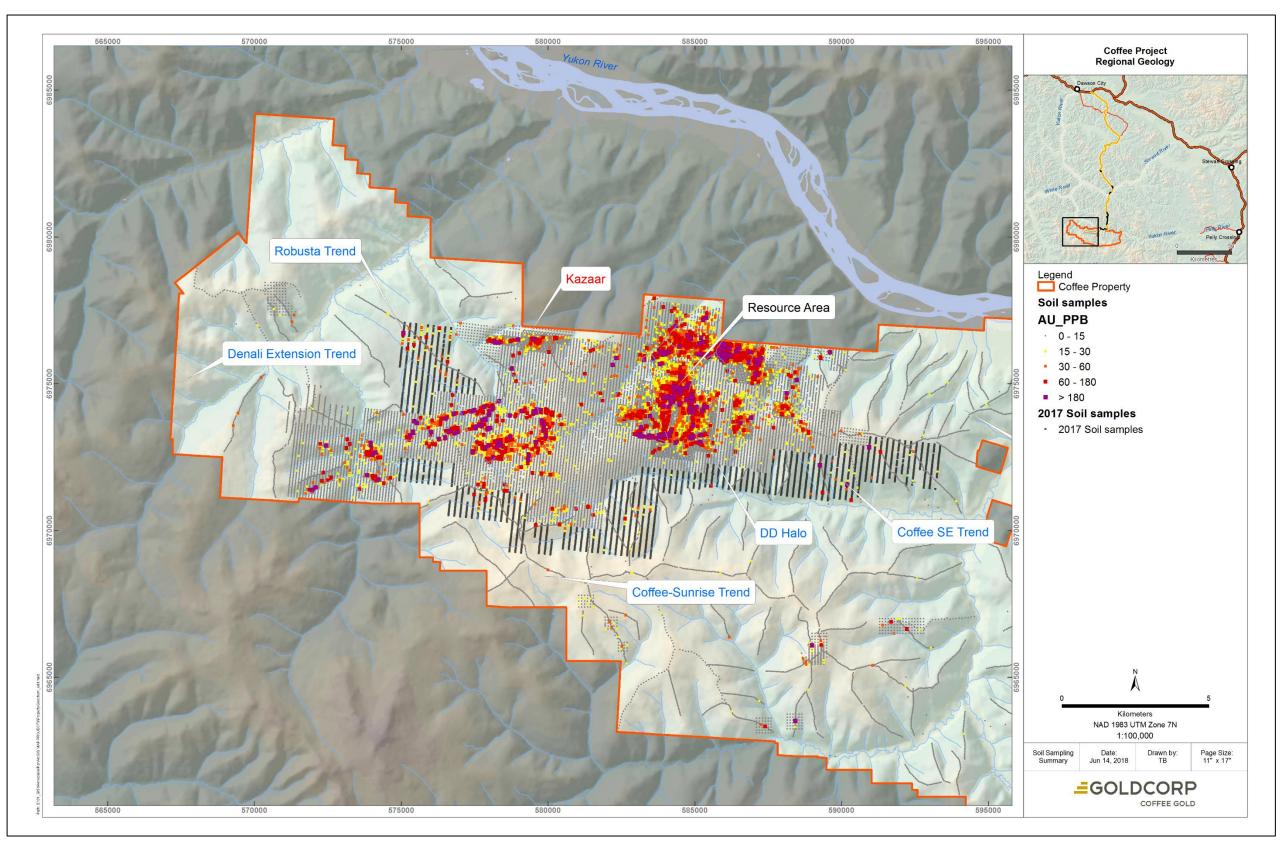
## 7.1.4.1 Double Double Halo

The Double Double Halo prospect is located ~500m south of the Double Double deposit. The prospect is located along the northern margin of the Coffee Creek granite where it is in contact with Snowcap Assemblage metasedimentary rocks to the north. The prospect consists of a 900 x 600 m aeromagnetic areole characterized by an elliptic magnetic high illuminated by a ringed aeromagnetic low. The northern portion of the ringed magnetic low coincides with an anomalous geochemical signature characterized by a curviplanar linear 100 m x 800 m trend with peaking 190.5 ppb Au.

A total of three rock samples were collected in 2017, but were not submitted for assays following nonanomalous field XRF measurements. Samples consisted of unaltered biotite schist with vuggy quartz lenses, weakly altered Andesite, and a weakly clay altered biotite schist (Figure 9.4).

### 7.1.5 Geophysical Surveys

A series of geophysical orientation surveys were completed during the 2017 exploration season, see Table 7-1 for summary



### Figure 7.1: 2017 Soil Geochemistry Program.

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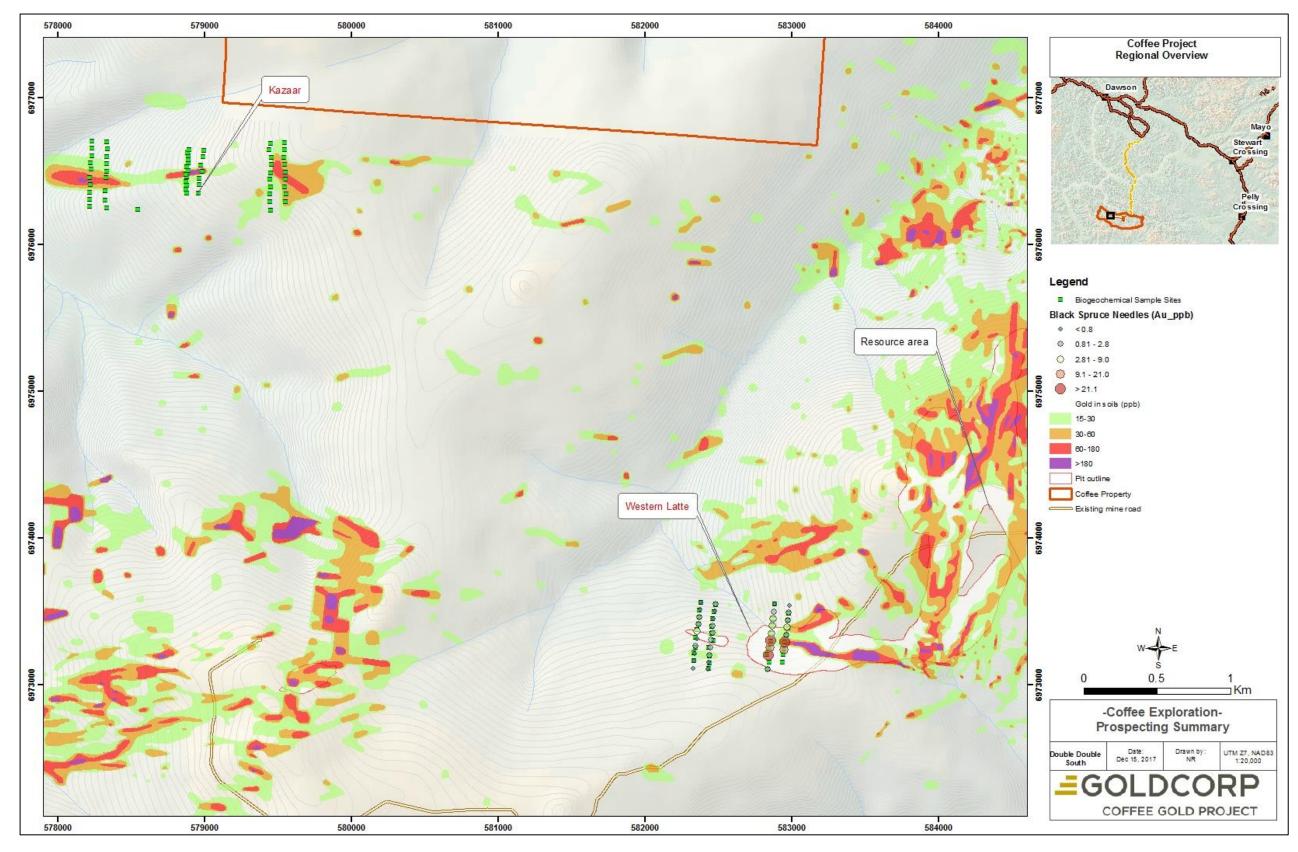
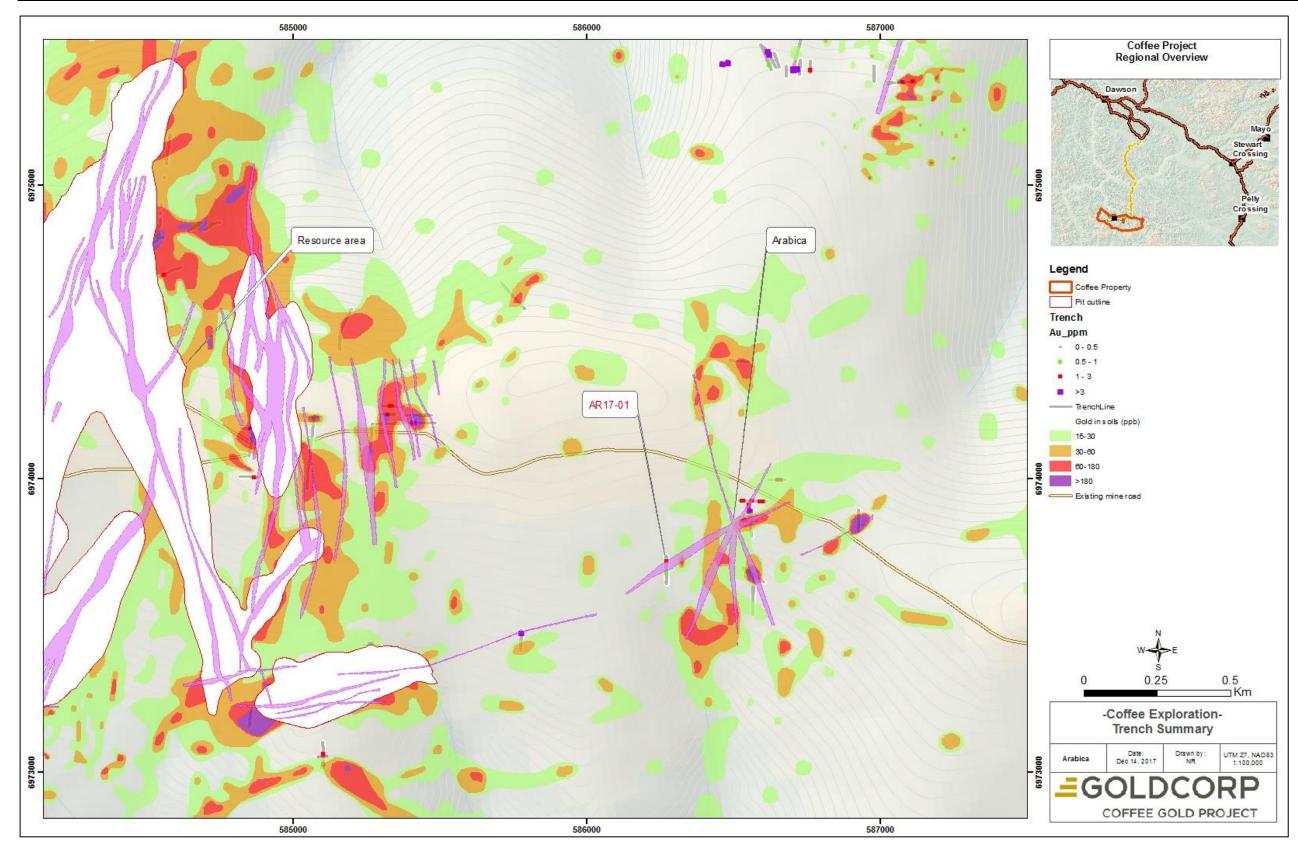


Figure 7.2: 2017 Biogeochemistry Program

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#### Figure 7.3: 2017 Trenching Program

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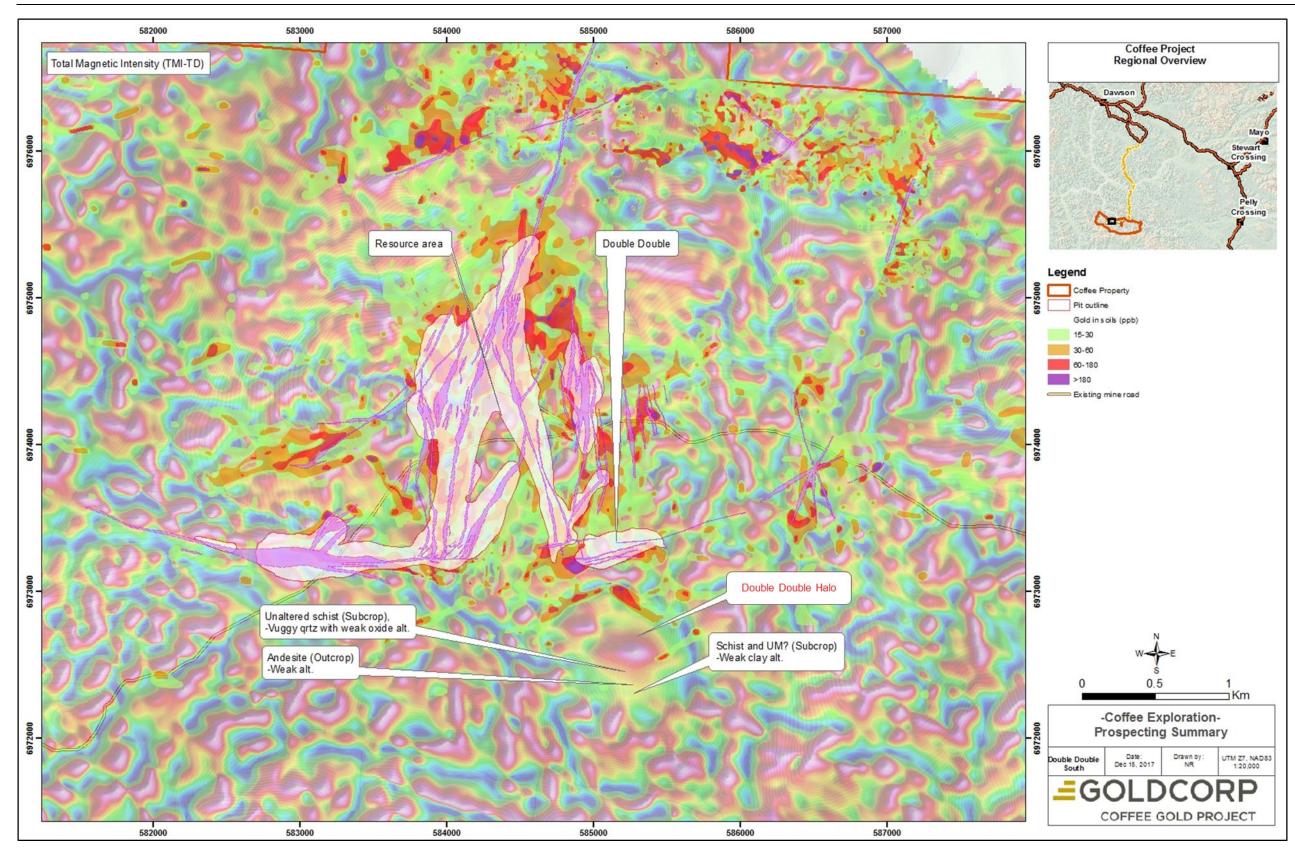


Figure 7.4: 2017 Prospecting Sample Locations.

## 7.2 Surface Sampling Methods and Approach

Sampling undertaken by Kaminak from 2009 through 2017 was performed by experienced geological technicians under the supervision of appropriately qualified geologists. The sampling methodology and approach for the soil and rock chip samples is summarized below.

### 7.2.1 Soil Sampling

The purpose of soil sampling was to map the distribution of gold and associated metals which is known to commonly overlie mineralized areas on the Coffee property.

Soil sampling was carried out by Ground Truth Exploration Inc. Soil samples were collected over a grid pattern of north–orientated lines 50-100 m apart with sampling stations at intervals of 50-100m, or 25m in areas where detailed soil sampling was required.

Samples were collected using a hand auger to various depths depending on the soil profile. The organic A-horizon material was discarded. Augering continued until C-horizon rock fragments were encountered, checking for false bottoms on the A-horizon profile. Soil samples were collected over depth intervals of 60 to 70 cm, with maximum depth not exceeding the 1.25 m length of the auger. Samples were placed directly into pre-labelled bags. A field duplicate sample was collected at a rate of one in every 25 samples. Sample number, location, depth, and geological parameters were recorded directly into a handheld computer with a Global Positioning System (GPS) sample location. The sample location was marked with flagging tape and a metal tag on the closest tree.

Samples were delivered to the Coffee Camp site by the contractor, where sample integrity was checked by Goldcorp geologists and subsequently shipped to Acme Analytical Laboratories in Vancouver, BC.

#### 7.2.2 Rock Grab Sampling

Collection of 'grab' samples from outcrop and colluvial float by qualified geologists, was undertaken sporadically across the property. Mapping supported by analysis of various lithological, alteration and structurally deformed rocks helped delineate areas for more systematic exploration.

## 7.2.3 Trench Sampling

The exploration trenches excavated in 2009 to 2017 had composite rock samples taken at 5m horizontal intervals, with detailed sampling on 2 or 1 m intervals within probable mineralization. Representative samples were collected by chipping rock on the wall or base of the trench. Hand sampling may introduce sampling bias, however the purpose was to link gold-in-soil anomalies to their bedrock origin and thereby confirm a local source, lithology, alteration and deformation type, and ultimately to help define deeper drilling targets. In such circumstances a positive sampling bias is generally desirable. Trench sampling, even in areas of channel sampling from bedrock, is not used in resource estimation in order to preclude the possibility of sampling bias from the resource model.

For trenching, heavy equipment was used to excavate to a minimum of 0.5 m below the bedrockcolluvium interface. Start and end coordinates of each trench were recorded with a handheld GPS unit. Sampling intervals were delineated by tape measure, with the exact location of each sample calculated as the midpoint of each sample interval. Other descriptive attributes and geological information were recorded and incorporated into the project database.

## 8 Drilling

## 8.1 Sampling Method and Approach

Kaminak's sampling of diamond drill core and reverse circulation cuttings, beginning in 2010 through 2017, was performed by experienced geological technicians under the supervision of appropriately qualified geologists. The drilling and sampling procedures described below, have been performed in a consistent manner throughout each drilling program. The following section summarizes the sampling methodology and approach for core and reverse circulation drill holes. Methods for sonic and rotary air blast (RAB) drilling are not discussed herein, as neither contribute to the mineral resource statement.

## 8.1.1 Drill Core Sampling

Drilling typically targets specific mapped geochemical or structural trends with fences of one or more core drill holes drilled perpendicular to the strike of the interpreted mineralized structures on variably spaced sections or fences. Most cross sections contain two to five drill holes that are designed to intersect the mineralized target horizon at intervals typically ranging from 25 m to 50 m, typically to maximum depths of 200 m below surface. The approach was adjusted during drilling to allow for the testing of extensions of interesting geology, or assay results on adjacent sections. Individual drill holes were completed each from a unique setup, resulting in a series of sub-parallel holes that often intersect at angles roughly perpendicular to the target horizon. The resultant fence of intersections supports a geological interpretation of the geometry and subsequently derives a "true" thickness of mineralized zones.

Borehole locations were planned and set out by Kaminak geologists using a handheld GPS. A compass was used to determine borehole azimuth and inclination. Drill holes were drilled at an angle of between 70° and 45° from the horizontal, depending upon the target. Downhole surveys were completed for all drill holes using a Reflex EZ-Shot® electronic single shot (magnetic) device. Downhole deviation of drill holes was measured using these tools at nominal interval of 30 m. Upon completion of drilling, collar locations were surveyed by Challenger Geomatics Ltd. of Whitehorse, YT with a Real Time Kinematic (RTK) GPS using five control points.

Drill core was transported daily by truck or helicopter to the logging facility at the Coffee Gold Project camp. Core was reviewed for consistency and each metre marked clearly for reference. Core recovery and rock quality designation (RQD) were measured and recorded, and the core oriented when possible. XRF analyses were performed on drill core at 1 m intervals, as close to the metre mark as possible. Core was then logged by a geologist who recorded lithology, alteration, structure, and mineralogy directly into a computer. Core photographs were taken prior to sampling. Core samples were taken from half-core sawed lengthwise with a diamond saw. Half-core samples were bagged and prepared for dispatch to ALS Minerals laboratory. The remaining half was returned to the core boxes. Commercially prepared blank and control (standard reference) samples were inserted at a rate of one for every 10 samples, alternating between a blank and a reference material sample. Following sampling, core boxes were labelled with metal tags and stored on cross-stacked pallets at the Coffee Gold Project camp for future reference and testing. Pre-numbered sample books were used to record borehole number, location, sampling interval, and date of sampling. All sample books are organized and archived at Goldcorp's Vancouver office.

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Diamond core recovery data is available for nearly all drill holes on the Coffee property. The overall average core recovery is 96%, with 95% of all sample intervals demonstrating recoveries greater than 80%. Approximately 1.5% of sample intervals have recoveries less than 50%. There is no apparent relationship between drill core recovery and gold content at Coffee. However, during the 2014 and 2015 infill drill programs, mineralized sections with < 80% recovery were considered for re-drill, and sections with <50% were designated automatic re-drill.

### 8.1.2 Reverse Circulation Chip Sampling

Reverse circulation drilling was completed on the Coffee Gold Project from 2010 through 2017. The drilling approach was similar to that employed for diamond core drilling; a series of sub-parallel holes designed to perpendicularly intersect the mineralized target horizons at (typically) 25 m to 50 m intervals, depending upon the level of geological confidence of the mineralized trend.

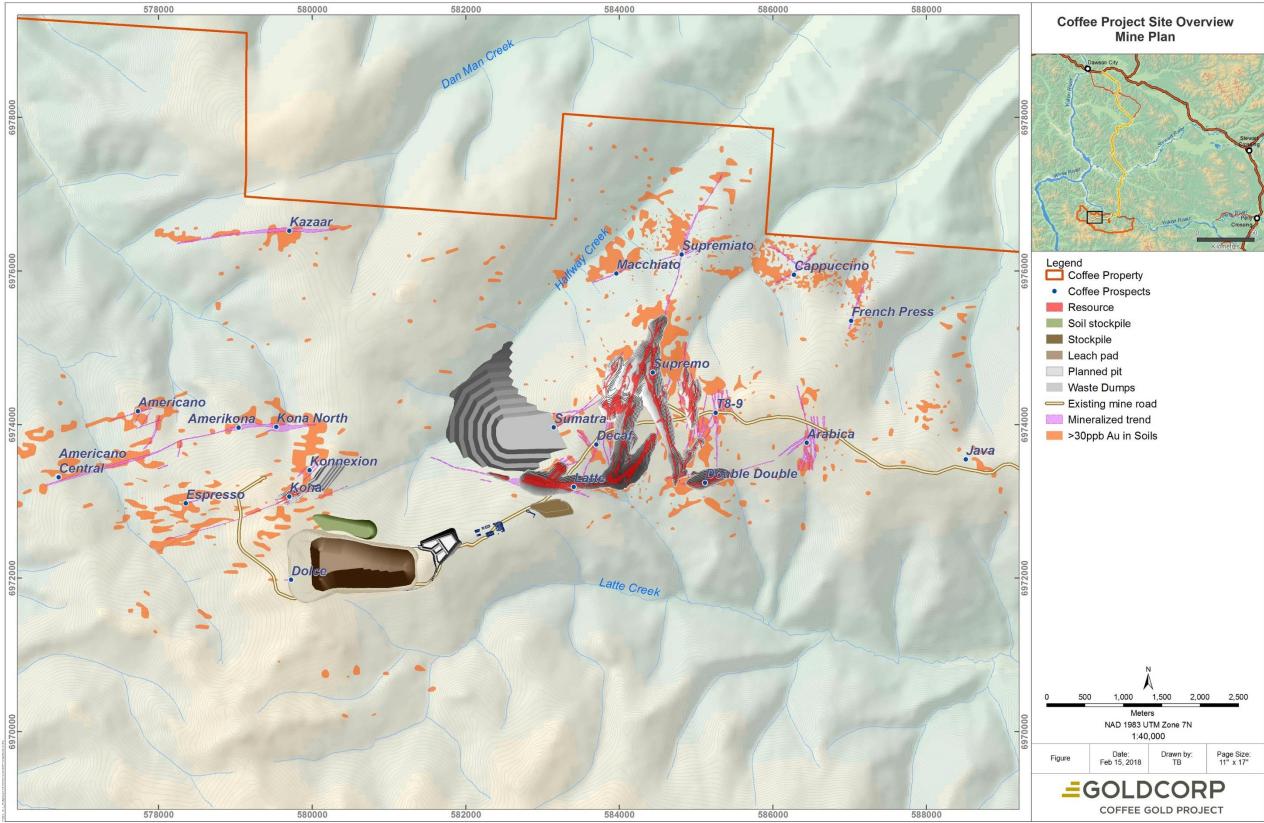
RC drilling produces a sample of rock cuttings rather than rock core. The downhole hammer is powered by compressed air, which also acts as the medium bringing the cuttings up to surface. Compressed air drives a pneumatic hammer attached to a rotating face sampling bit with tungsten carbide nodes. Chips and rock dust generated by the hammer are forced through openings in the face of the bit and up into the sample return tube inside the rod string. The 5-foot rods are attached to an air and sample hose that continues into a cyclone module. The sample is separated from the air in the cyclone and drops out of the bottom into a 5-gallon pail. Each sample comprises one 5-foot (1.52 m) run, with the drill hole and rods being blown out (cleaned) between each "run". The total volume of cuttings from each run is reduced through a 1:7 riffle splitter, into a sample typically weighing 2 kg which was retained for analysis. The larger volume of reject material was retained at the drill site in plastic retention bags labelled by depth of sample.

The technician collected a small volume of sample chips, sieved from a spear sample of the retention bag for observation and records the geologic properties (lithology, texture, grain size, alteration, colour, etc.) directly into a field laptop. The chips were then logged by a geologist in camp. Sample bags collected for analysis were transported daily by truck or helicopter to the processing facility at the Coffee Gold Project camp. Each sample was then analyzed on the XRF instrument before being shipped to ALS Minerals for analysis.

Reverse circulation sample recovery was closely monitored by the driller and supervising geologist or technician. If poor sample quantity or quality was encountered during drilling and if the driller was unable to reinstate the drill hole and achieve adequate sample return, the hole was abandoned and re-drilled. Intervals with poor sample quantity and/or excessive moisture content were logged as such, and the interval was not sampled. The vast majority of RC sample recoveries are generally very good, with qualitative studies showing that recovery averages >85%. While some fine dust is lost to the air or within the drill hole or voids/fractures during drilling, this represents a very small amount of sample material and is not believed to affect sample integrity to a measurable degree.

In 2016 a "scout" RC drill was introduced to the exploration programs with the aim to test previously un- or under-drilled geochemical anomalies with broad fences of shallow holes utilizing a self-propelled caterpillar track-mounted drill. All drilling methods as described above remain constant between scout and deeper drilling.

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## 8.2 Drilling Summary

As of the end of the 2017 field season, 2649 drill holes for approximately 376,551 m of cumulative drilling length have been completed. A complete drilling summary by year, drilling method, and zone is provided in Table 8-1.

Year	Туре	Zone	Holes	Metres
		Supremo	27	5,433
		Latte	19	4,291
		Latte North	2	420
		Sumatra	1	184
		Double Double	5	1,231
	DD	Kona	3	499
		Kona North	4	745
		Espresso	3	795
		Americano	10	1,868
		Regional	2	637
		All Zones 76		16,103
2010 Su	ummary	Totals	76	16,103
		Supremo	15	4,904
		Latte	60	15,812
		Latte North	1	229
		Double Double	11	2,742
	DD	Kona	6	1,810
0044		Macchiato	4	1,191
2011		Cappuccino	2	602
		Americano West	4	1,222
		All Zones	101	28,515
		Supremo	98	13,374
	RC	Kona	47	6,153
		All Zones	145	19,527
2011 Su	ummary	Totals	246	48,042
		Supremo	82	17,642
	DD	Double Double	30	8,455
2012		All Zones	112	26,097
	RC	Supremo	223	39,451
	RC	All Zones	223	39,451
2012 Su	ummary	Totals	335	65,548
		Supremo	30	5,953
	חח	Latte	19	4,225
2013	DD	Sumatra	13	2,094
		All Zones	62	12,272
	RC	Supremo	142	26,339

#### Table 8-1: Coffee Gold Project Drilling by Year

#### **Coffee Drilling Summary by Year** Year Туре Zone Metres Holes 5,480 Latte 35 Latte North 25 4,645 25 4,682 Sumatra 2 **Double Double** 316 Arabica 11 1,744 43,206 All Zones 240 2013 Summary Totals 302 55,478 Supremo 84 16,860 Latte 10 1,635 14 2,212 Kona 7 Kona North 1,546 **Double Double** 8 1,724 DD 7 1,210 Cappuccino French Press 4 620 4 Macchiato 716 2014 Condemnation 9 371 147 All Zones 26,894 70 Supremo 9,644 Latte 39 4,488 Kona 3 411 RC Kona North 6 1,126 **Double Double** 42 5,660 Condemnation 46 4,537 All Zones 206 25,866 2014 Summary Totals 353 52,760 Supremo 13,827 86 4 Latte 565 **Double Double** 2 357 DD 2 Kona 308 2 289 Kona North Condemnation 7 494 All Zones 103 15,840 Supremo 141 18,739 Latte 6 707 2015 Kona North 10 873 RC **Double Double** 5 512 12 Hydrology 653 Condemnation 23 2,218 All Zones 197 23,702 1 Supremo 50 Latte 2 87 RAB Condemnation 32 2,060 All Zones 35 2,197 Sonic Geotechnical 35 156

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		Coffee Drilling Summa	ry by Year	
Year	Туре	Zone	Holes	Metres
2015 Su	ummary	Totals	370	41,895
		Supremo area	21	5,568
		Latte	3	821
	DD	Coffee West		
		Regional	2	315
		Geotech & Hydro	35	370
2016		All Zones	61	7,073
_010		Supremo	136	12,350
		Latte	31	1,544
	RC	Coffee West	93	6,459
		Regional		
		Geotech & Hydro	1	117
		All Zones	261	20,470
2016 Sı	ummary	Totals	322	27,543
		Supremo Area	16	4326
		Latte	39	8,967
	55	Coffee West	18	4,130
	DD	Regional	1	275
		Geotechnical	43	721
2017		All zones	117	18,419
		Supremo Area	334	25,289
R		Latte	103	10,138
	RC	Coffee West	74	12,401
		Regional	17	2,985
		All zones	528	50,813
2017 St	ummary	Total	645	69,232
Coffee Go	old Project	Property Totals	2649	376,551

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Source: Kaminak 2017

## 8.3 2017 Drilling

In 2017 the exploration strategy was to continue to convert known drill prospects to maiden resources, and to continue to bring new targets into the Coffee portfolio by moving outwards beyond the established deposit areas to target un- and under-explored geochemical targets in the Coffee deposit area.

Specific 2017 goals included:

- Complete exploration and resource delineation to estimate maiden resources at three previous drill discoveries: Supremiato, Arabica, Supremo T8-9;
- Undertake infill drilling of indicated resources / probable reserves within the first three years of mine life, specifically targeting the Latte open pit resources/reserves;
- Convert existing inferred resources to indicated resources in order to assess maiden reserves, specifically at Kona North and Sumatra;
- Complete systematic follow-up and first drill testing of over 25 linear kilometres of un- or undertested gold-in-soil anomalies in distal areas to the existing resources /reserves;
- Undertake a broad geophysical orientation study with the aim to test all possible methods for delineating bedrock structures, sulphide mineralization, and depth of colluvial cover;
- Extend the detailed soil sampling grid at Coffee and other identified conceptual targets throughout the property.

Targets were selected based on the above criteria and a program commenced in March, 2017.

During 2017, 645 drill holes (69,232 m) were drilled at Coffee East (Latte, Supremiato, Supremo gaps, Supremo T8-9, Decaf, Arabica and Java), and at Coffee West (Kona North to Americano trend, Americano Central, Konnexion, Kazaar and Froth), as well as various locations intermediate to, and targeting possible links between, established mineralized zones (Figure 9.5).

Of the 645 drill holes:

- 74 were cored (17,698 m) and 571 were reverse circulation (51,534 m)
- 226 were exploration (44,030), 219 were spacing study (5520 m), 43 were geotechnical\* (721 m), 156 were for infill drilling (18,953 m).

Core drilling took place between May and early October 2017 and was contracted to Cyr Drilling International Ltd. of Winnipeg, Manitoba. The vast majority of core was NQ2 (50.5 mm diameter), with minor HQ (63.5 mm) core drilled to support the metallurgical and geotechnical\* programs.

RC drilling took place between March and early November 2017 and was contracted to Northspan Explorations Ltd. All RC boreholes were of 92 mm diameter utilizing center-sample (face-sampling) bits.

\*Note: geotechnical drilling is not covered in this exploration annual report.

### 8.3.1 Supremo Area

During 2016-17 several target areas in close proximity to the existing mine-plan were tested via iterative programs designed to test potential to advance within the portfolio to eventually produce economic resources that could add ore feed to the Coffee mine plan (supplement current LOM plan to increase production by providing additional working faces, and/or extend mine life at currently modelled throughput rates) (Figure 8.2). Geologic models for each target area indicates Supremo-style mineralization which comprises strike extensive mod-high grade oxidized mineralization amenable to open-pit /heap-leach mining.

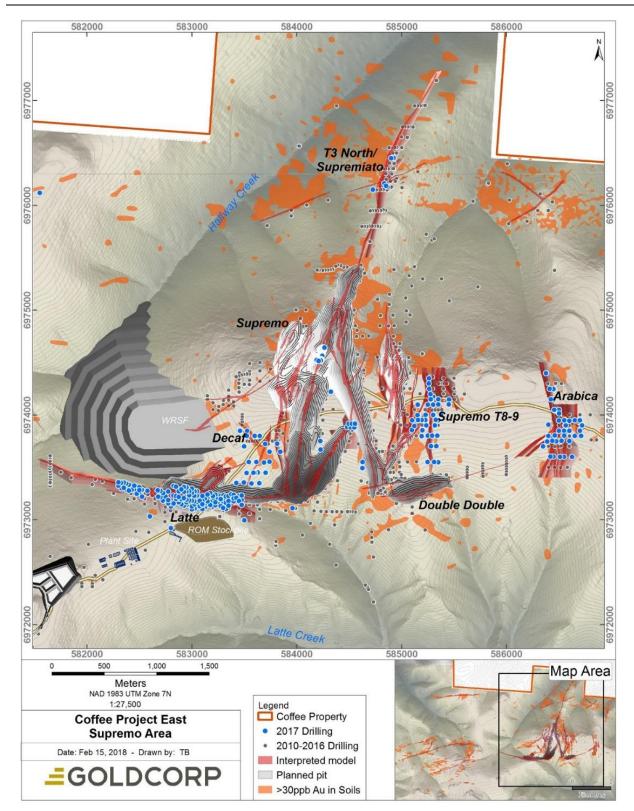


Figure 8.2: 2017 Supremo area drilling, interpreted mineralized trends (red) in background, overlain with Au-in-soil anomalies.

# Supremiato

### **Objective & Target Description**

During 2017 at Supremiato a maiden resource was delineated comprising 46,000oz (indicated and inferred) Au at 0.83 g/t Au, hosted within Supremo –style heap leach amenable oxide mineralization. Supremiato refers to the intersection of the Supremo T3 North and Macchiato structures and is located 800 m along trend of the northern extent of the proposed Supremo T3 pit (Figure 8.3). The zone is found at an elevation of 1000m and is approximately 4.5 km away from the proposed crushing facility.

First tested in 2014, trenching targeted both the T3 North and Macchiato structures to the north, south, and east of the Supremiato zone. All trenches intersected mineralized material, but not all were successful in penetrating permafrost and reaching bedrock. Two diamond drill holes were drilled at an azimuth of 315° to test the possible intersection of the two structures in 2014. Drilling highlights included 1.48 g/t Au over 11m (CFD0355), 1.95 g/t over 14m, and 2.21 g/t over 9m (both CFD0356). Mineralized zones appear to be oxidized to a depth of at least 70 meters below surface ("mbs"). The target was not deemed large enough to have a significant impact to the 2015 Coffee feasibility study and therefore follow-up drilling had not taken place until 2016. The focus of the 2016 program was to define the structural framework immediately adjacent to the proposed intersection suggests that Supremiato consists of two structural corridors which can be modelled as follows:

- 1. T3 North: comprised of 3 separate mineralized structures, all of which dip very steeply to the east and possibly branch out from a main structure at depth. The structures merge into two distinct structures by approximately 6,976,500mN, 300 m to the north of the interpreted intersection zone.
- 2. Macchiato: A single structure to the west of the intersection, which bifurcates in the east following its intersection with T3 North. Dips at approximately 75 degrees to the south.

3D Leapfrog modeling determined the exact intersection of both structures has not been fully tested. Targeted infill performed in 2017 was focused on the intersection zone and around previously drilled fences. The program led to re-modelling and subsequent maiden resource estimation.

### 2017 Program(s) Completed

Drilling spread over one RC drilling campaign which was completed on May 24<sup>th</sup>. Drilling comprised of 6 holes for a total of 1006m. Two of these holes were drilled to the NE (315°), targeting the intersection zone of the T3 and Macchiato mineralized structures. Two holes were drilled north (000°) to capture the E-W trending Macchiato structure. Two holes were drilled to the east (270°) infilling two historic drill fences bringing the drill spacing down to 50m across the prospect. 2017 hole locations are shown below in Figure 8.3.

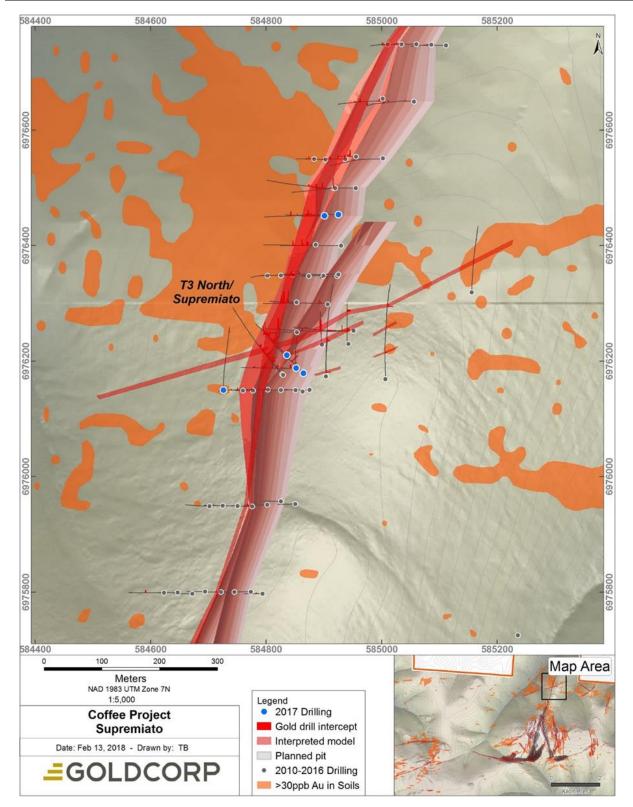


Figure 8.3: Plan view map of 2017 Supremiato RC drilling. 2017 collars in blue, updated Supremiato model (red), overlain with Au in soil anomalies.

Effective Date: June 14, 2018

### Results

Four of Six holes returned intercepts ≥10 gram-metres. Highlight drill results from the 2017 programs include:

6.57 g/t Au over 6.09 m (CFR1425)
3.95 g/t Au over 4.57 m (CFR1426)
1.79 g/t Au over 10.67 m (CFR1429)
6.24 g/t Au over 3.05 m (CFR1430)

### **Geologic Interpretation**

The presence of two major structural orientations at the Supremiato zone is well constrained by trenching, reverse circulation, and diamond drilling at T3 North and Macchiato. The general orientation of these two structures is ENE-WSW (Macchiato) and NNE-SSW (T3 North). Scout RC drilling to the north and south of the Supremiato zone returned narrow intervals of weak mineralization which indicated the continuation of the T3 structure north of the main T3 resource, but at a weaker tenor and within a relatively narrow structural corridor. However, at Supremiato, an additional level of structural complexity is introduced by the intersection of the Macchiato trend with T3.

This is represented by a broad splash of Au-in-soil geochemical anomalism within a 500 x 500m region where the magnetic low signatures of T3 North and Macchiato intersect. RC and diamond drilling in the area confirms the presence of these two corridors immediately outside of the projected intersection. In addition, two 2014 "wildcat" diamond holes came close to drilling the actual intersection of the two structures by drilling to the northwest into the damage zone.

Drilling aimed at defining the structural framework immediately adjacent to the proposed intersection suggests that the two structural corridors can be modelled as follows:

1. T3 North: comprised of 3 separate mineralized structures, all of which dip very steeply to the east and possibly branched out from a main structure at depth. The structures merge into two distinct structures by approximately 6976500mN, 300m to the north of the interpreted intersection zone.

2. Macchiato: A single structure to the west of the intersection, which bifurcates in the east following its intersection with T3 North. Dips at approximately 75 degrees to the south.

Down-hole structural measurements from 2016 diamond drilling have also indicated the presence of numerous NW trending structures. The NW trend is recorded by dacitic dykes and breccia walls and indicate complexity within the zone. The kinematics of the zone remain unclear: NW trends may represent rotation within the intersection zone, suggesting that the Macchiato structure cut T3 North, or they may represent later (syn-to-post mineralization) dilatancy leading to dyke intrusion.

### Arabica

### **Objective & Target Description**

During 2017 at Arabica a maiden resource was delineated comprising 127,000 oz (indicated and inferred) Au at 0.65 g/t Au, hosted within Supremo –style heap leach amenable oxide mineralization. Arabica is located 1.5 km east of the T7 pit and straddles the access road, with a trucking distance to the planned crushing facility of ~4.5 km (Figure 8.4).

First tested in 2014, trenching and drilling targeted a broad N-S trending high tenor gold-in-soil anomaly coincident with an air mag linear low, interpreted as potentially hosting Supremo-style mineralization. Drilling highlights included 3.38 g/t over 10.67 m in CFR370 and 6.05 g/t Au over 4.57 m in CFR371. The target was not deemed large enough to have a significant impact to the Coffee feasibility study and therefore follow-up drilling has not taken place until 2016. Positive results from the 2016 program warranted infill drilling in 2017 which led to the maiden resource estimation.

### 2017 Program(s) Completed

Drilling spread over three campaigns:

Phase 1: completed April 15<sup>th</sup>, comprised of 26 RC holes for a total of 4547.65m. The focus of these holes were to define and delineate the gold bearing structures discovered in previous years drill success.

Phase 2: completed June 5<sup>th</sup>, comprised of 12 RC holes for a total of 1577.36m. The purpose of these holes were to increase geologic confidence of the results from the first program.

Phase 3: completed July 1<sup>st</sup>, comprised of 5 diamond drill holes totaling 1174m. The 2017 DDH exploration program was focused on supplying structural control for RC fences drilled earlier in the field season and in previous years.

### Results

Seventeen drill holes returned intercepts ≥10gram-metres. Highlight drill results from all 2017 programs include:

1.24 g/t Au over 12 m (CFD0674)

10.83 g/t Au over 6.1 m (CFR1324)

2.48 g/t Au over 12.19 m (CFR1299)

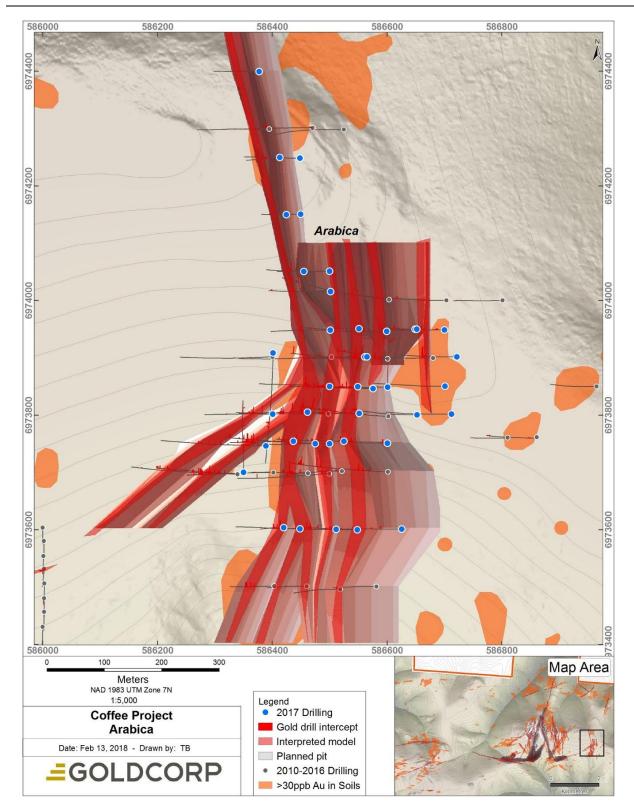


Figure 8.4: Arabica Leapfrog model (shaded red) with hole locations and Au in soil anomalies overlain

#### **Geologic Interpretation**

2017 infill drill results supported the hypothesis of stacked structures in the Arabica area. Several steeply dipping mineralized structures were intersected and modeled striking from NNW (340) to NNE (040) with one structure striking ENE (070) and connecting to the projected Double Double structural corridor. Drill intercepts correlated well with historical trenching, adding additional geologic confidence to the model. The modeled intersection of the stacked structures and E-W structure continued to carry the best grades in the Arabica system. Moving north of the intersection "main zone", the most consistently mineralized structure is the NNW (340) trending structure, which was successfully drilled out ~500m north of the main zone along 50-100m step outs. The stacked structures remain open to the north and south along strike and represents a target to increase the size of the deposit.

Geologic logging identified mineralized structures which closely resemble those which make up the various Supremo open pit reserves: steeply dipping, slightly anastomosing fault planes controlling brecciated and fracture–fed disseminated oxide mineralization (Figure 8.4). Assay grades suggest similarities with Supremo T2 and T5 (brecciation not as intensely developed as T3).

Logging and CN leach assays indicate strongly to wholly oxidized mineralization to at least 200 metres below surface.

# Supremo T8-T9

### **Objective & Target Description**

The target at Supremo T8-T9 is 22,000 oz (indicated and inferred) Au at 0.69 g/t Au, hosted within Supremo –style heap leach amenable oxide mineralization. The Supremo T8-T9 zone is located immediately east of the Supremo T7 structure and proposed open pit (Figure 8.5). The structure has a potential strike length in excess of 600 m and is bisected by the Java Road. Haul distance to the proposed crushing facility is approximately 2.8 km.

Supremo T8-T9 was first explored in 2013, with RC drilling across a small portion of the 1000 m x 400 m soil anomaly to the south of the Java Road. The best drill hole returned a total of 10 gram-metres Au and exploration at the target was put on hold until the 2014 exploration season. Trenches were excavated to the north of the Java Road near the site of a 300 ppb Au soil sample in 2014. Multiple mineralized intervals were unearthed, with a highlight grab sample running 18 g/t Au. The target was shelved following the 2014 spring exploration program to focus on infill drilling in support of the Coffee Preliminary Economic Assessment and Feasibility Study during the remainder of 2014 and 2015. Follow up exploration drilling commenced in 2016, with infill drilling and a maiden resource estimation conducted in 2017.

### 2017 Program(s) Completed

Drilling spread over two campaigns:

Phase 1, completed March 31st, comprised of thirty-two RC holes for 6,098m of nominal depths of 201.2m and conjectural spacing of 100 x 50m in order to approximate maiden Inferred resource.

Phase 2, completed June 19th, comprised of 6 holes totaling 1435m of drilling. The 2017 DDH exploration program was focused on supplying structural control for RC fences drilled earlier in the field season and in previous years. Infilling with diamond drills allowed for a maiden resource to be estimated on T8-T9.

### Results

Thirteen drill holes returned intercepts ≥10gram-metres. Highlight drill results from all 2017 programs include:

4.25 g/t Au over 6 m and 1.77 g/t Au over 16 m (CFD0669)

1.38 g/t Au over 15.24 m (CFR1278)

1.88 g/t Au over 10.66 m (CFR1276)

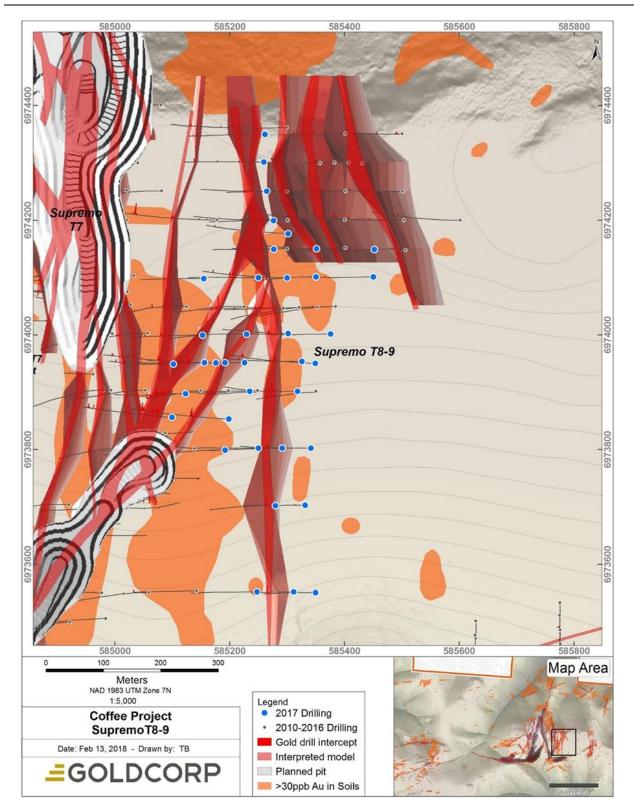


Figure 8.5: Updated Supremo T8-9 Leapfrog model (shaded red) with hole locations, Au in soil anomalies, and the Supremo block model overlain.

Effective Date: June 14, 2018

#### Geologic Interpretation

Trenching, RC and diamond drilling at the T8-T9 prospect indicate the presence of a set of multiple, sub-vertical, stacked structures with an approximately NNE-SSW orientation (Figure 8.5). Mineralization at T8-T9 superficially resembles Supremo T7 – narrow, brittle structures with dark hematitic disseminations and brecciated gneissic material. The structures dip steeply to the east and gently anastomose and bifurcate along strike.

Down hole structural data from an additional six 2017 diamond drill holes on four drill fences were used to refine the 2016 geological model. QAQC of the structural data has filtered out a number of unsound measurements and identified higher confidence measurements that can be used in 3D modelling and interpretation. Within these measurements, a number of orientations are indicated by breccia walls and dyke margins. These varying measurements are most likely the result of narrow bifurcations and structural splays diverging from an overriding NNE structural corridor.

2017 infill drill results supported the initial 2016 hypothesis and refined the orientations of the stacked structures, which include two newly interpreted N-S oriented structures. The central N-S trending structure was able to be traced all the way towards Double Double and displays common pinching and swelling seen across the Supremo T-structures on the property. The thickness and grade of the structures are fairly low grade and thin, resulting in a higher strip ratio; however, intersections in the southwest corner and in the heart of the model returned the best grades.

# Deep Latte and Supremo T3

### **Objective & Target Description**

"Deep Latte/ Supremo T3" refers to the projected down dip extension of the T3 and Latte ore bodies below the extent of current delineated resources. Supremo T3 and Latte Deep resources are predicted to be sub-vertical and steeply-dipping (respectively) extensions of the well-defined T3 and Latte orebodies. Potential for high-grade plunging shoots as well as potential oxide resources at depth exist along the entire strike length of the T3 structure, as well as within splays diverging from the main structure. Conceptual shoots occur at the convergence of mineralized structures near surface and plunge sub-vertically along an intersection lineation. Orientation and size of these shoots is likely constrained by the tenor of the structures feeding these intersection zones. High grade shoots may also have lithological control at depth or relationships with the overall structural architecture of the Coffee deposit. Similar structural interactions are predicted along the main Latte structure, although sulphide facies mineralization is expected at depth at Latte. Little is known about deep mineralization characteristics as no systematic testing of the deep regime of the Coffee system has been completed to date. The projected down dip extensions of the Supremo T3 and Latte resources have been probed in a handful of deeper drill holes, but not systematically tested.

### 2017 Program(s) Completed

In 2017 a 10,000m drill campaign was planned with the objective of intersecting deep mineralization, although only five holes with a total of 3605.5m of drilling were completed (Figure 8.6). Exploratory diamond drilling in 2017 covered widely-spaced deep intersections of the Latte ore body below the current block model and exploration drilling extents. Four drill holes spaced over 1.3km targeted intersection zones of the primary Latte load projected to depth at intersection points with the Latte North, Decaf and T3 structures. A single deep drill hole was completed exploring Supremo T3 as the diamond drilling program was cut short due to water source freeze up.

### Results

Four drill holes returned intercepts ≥10gram-metres. Highlight drill results from the 2017 programs include:

1.81 g/t Au over 29 m (CFD0696, Deep Latte)

3.1 g/t Au over 7 m (CFD0697, Deep Latte)

3.16 g/t Au over 12 m (CFD0701, Deep Supremo T3)

4.29 g/t Au over 8 m (CFD0701, Deep Supremo T3)

### GOLDCORP INC. 2017 Coffee Gold Exploration Assessment Report

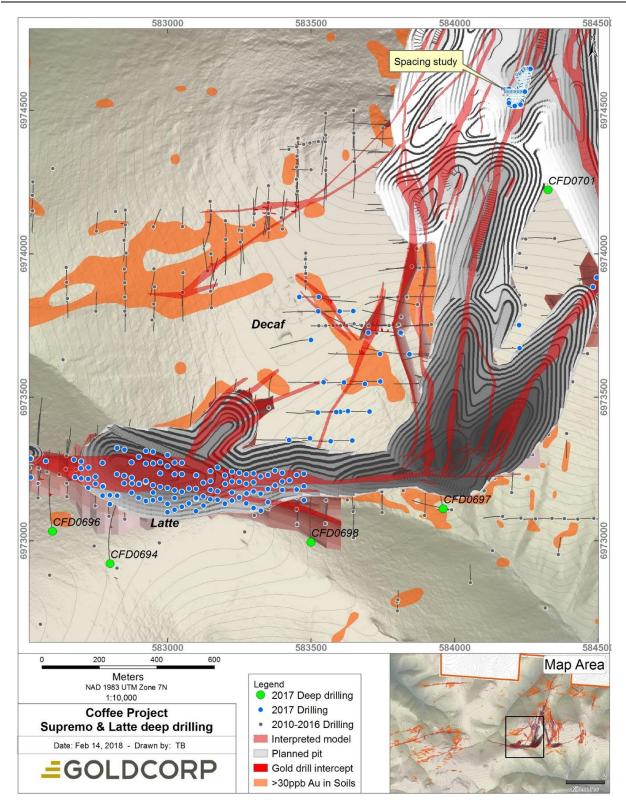


Figure 8.6: Collar locations for 2017 Deep Latte and Supremo T3, Au in soil anomalies, and the Supremo block model overlain

Effective Date: June 14, 2018

#### **Geologic Interpretation**

All deep drill holes were successful in encountering mineralization at depth. Drill holes beneath Latte encountered exclusively sulphide mineralization, extending known mineralization up to 360m downdip. The single deep hole drilled at Supremo T3 encountered both oxide and sulphide mineralization in two separate zones at depth, extending known mineralization up to 380m down-dip and intersecting oxide mineralization to c. 430 mbs. Structural analysis of measurements taken at Deep T3 indicates that the mineralized zones behave predictably at depth with regard to targeted primary loads (congruent strike and dip). Some evidence for deep high grade intersections was observed at Supremo T3, however, no conclusive evidence for intersecting structures acting as upgraders was encountered.

# Supremo T3 Spacing Study

A combined pilot grade control drill program and drillhole spacing study over a portion of Supremo T3 was completed in November 2017 (see Figure 8.7 for location). The study was designed to refine the mineralized domain models and to collect empirical geostatistical data both to determine the optimum spacing for future infill drilling to delineate measured resources, and for future grade control drilling when mining commences (targeted for 2021 pending permitting). Drilling comprised 219 reverse circulation drill holes for 5500 meters that were drilled to a maximum vertical depth of ~20m on a 5x5m surface pattern grid over approximately 140 m strike of T3. A second study area of similar size is planned over Supremo T4-5 in 2018, along with an extension to the existing T3 study which would provide the equivalent of one month of production to underpin the geostatistical study.

Domain and resource modelling comprises estimations completed at varying drill spacing (e.g. 5x5m, 5x10m, 10x10m) in order to analyse the resolution of geologic interpretation, the estimated ounces per grid spacing, and relative confidence limits for tonnage and grade interpolation. Preliminary investigations on the results of the study were completed in February, 2018, and were further refined in early March, 2018. Analysis of the results is ongoing but expected to be completed before the start of the 2018 drill season.

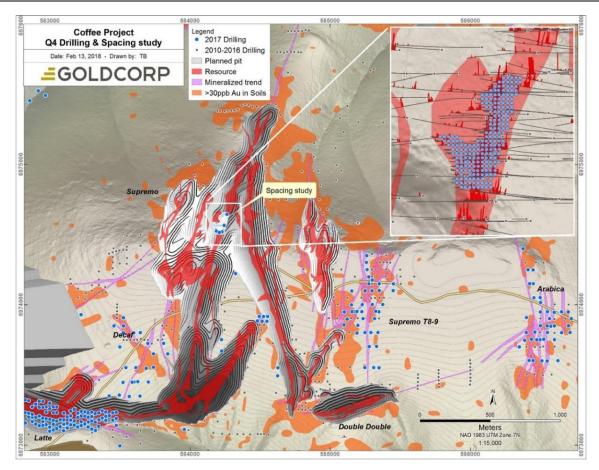


Figure 8.7: Supremo T3 Spacing Study area indicated, Au in soil anomalies, and the Supremo block model overlain.

# Supremo Gaps

### **Objective & Target Description**

Supremo Gaps refers to several near-mine exploration opportunities which were identified in 2017 as shallow, near-mine oxide targets adjacent to planned pits at the Supremo deposit. This target category comprises unexplored interpreted splays from the primary identified ore bodies, or gaps between drill fences within or adjacent to current mine plan which have potential to add low-cost gold ounces to the project.

### 2017 Program(s) Completed

1. **Supremo T4-5 Gap**: a c. 130m gap in drill coverage along strike adjacent to the intersection of Supremo T4 and T5, also a c. 75 m gap in between planned pits, six RC holes on two fences

#### Results

Three drill holes returned intercepts ≥10gram-metres. Highlight drill results from the 2017 Supremo Gaps program include:

4.84 g/t Au over 4.6 m (CFR1557, Supremo T4-5 Gap)

0.74 g/t Au over 16.8 m (CFR1563, Supremo T4-5 Gap)

2.49 g/t Au over 4.6 m (CFR1564, Supremo T4-5 Gap)

### **Geologic Interpretation**

The Supremo T4-5 Gap infill program was successful in delineating mineralization along strike of the T4 structure as it intersects the T5 structure. Mineralization was intersected where predicted, with widths and tenor of intercepts similar to previous adjacent drilling. Results will increase the geostatistical confidence at the Supremo T4 and T5 intersection which may further, pending modeling results, connect the planned T4&5 pits.

# Decaf

### **Objective & Target Description**

Decaf is a near-mine advanced target located in a previously underexplored area adjacent to the Supremo and Latte planned pits, approximately 2.9 km ENE of the future planned heap leach facility (Figure 8.8). The 700m of NNW trending linear anomalous soil-geochemistry emanating from the union of the Supremo T1-2 / T3 and Latte structures define the Decaf Trend.

The Decaf zone was previously trenched (2014), and drilled (2016 and 2017) in order to define the vertical and lateral continuity of the geochemical and geophysical anomaly. Two exploration trenches were excavated to the north of the Java Road in early 2014, following up on positive results infill soil-sampling in the area. The target was placed on hiatus after 2014 spring exploration trenching following a shift in exploration focus to infill drilling in support of the Coffee Preliminary Economic Assessment and Feasibility Study during the remainder of 2014 and 2015. Following up on positive results from 2014 trenching, a first pass "Scout" RC (SRC) drilling program was executed in 2016 consisting of a two drill fences of shallow (50m) holes directly targeting intercepts from previous trenching. 2016 drilling confirmed oxide mineralization close to surface adjacent to 2014 trenches, although no clear structural interpretations could be gained due to shallow drilling.

### 2017 Program(s) Completed

The 2017 Decaf exploration program was focused on gaining structural information through a first phase of diamond drilling adjacent to known mineralization (529m), followed by a second phase of exploratory north and south step-out diamond and RC drilling guided by structural findings from initial diamond drilling (514m in two DDH, 402m in two RC holes).

### Results

Seven drill holes returned intercepts ≥10gram-metres. Highlight drill results from the 2017 programs include:

4.67 g/t Au over 23 m (CFD0692)

4.5g/t Au over 10 m (CFD0630)

5.41 g/t Au over 8 m (CFD0701)

3.06 g/t Au over 7.6 m (CFR1424)

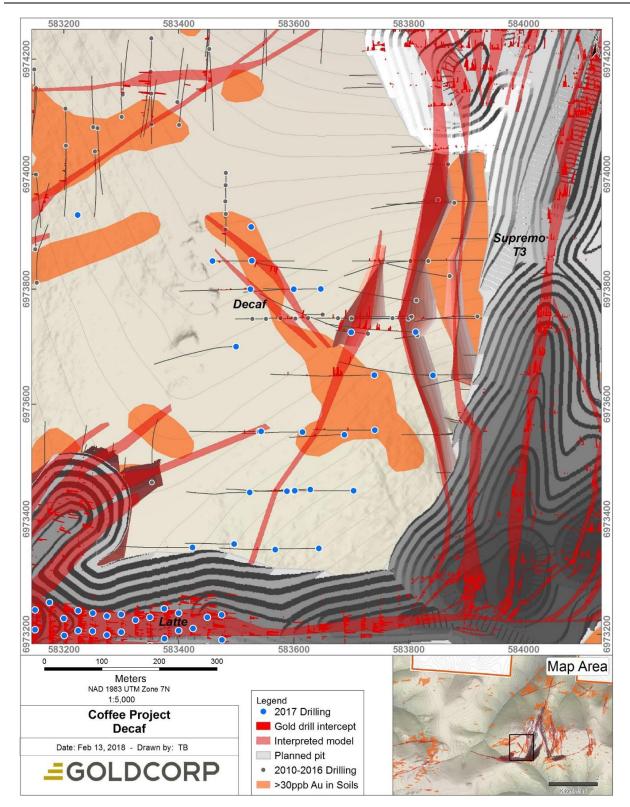


Figure 8.8: 2017 drilling at Decaf, interpreted mineralized trends and planned pits in background, overlain with Au-in-soil anomalies.

Effective Date: June 14, 2018

#### **Geologic Interpretation**

2017 drilling programs at Decaf successfully delineated transitional to oxide gold mineralization above average mine cut-off grade down to c. 150m below surface along two structural trends. A dominant 020-040° trend has been drilled to a total strike length of c. 450m, carrying most of the grade to the NE towards the junction with Supremo T1-2 while pinching out to the south of 6973650mN towards the Latte deposit. Based on structural modeling for a preliminary BOE, a second order structure with an apparent trend 340° trending structures was drilled to a strike length of c 300m, joining with the NE-NNE trend around 6973550mN Intersected mineralization is analogous to that of adjacent Supremo; an interpreted series of stacked, steeply dipping structures with a pinch-and-swell morphology along strike controlling brecciated and fracture controlled disseminated dominantly oxide to transitional mineralization.

Of note is that structural control from diamond drilling is limited to between 6973650mN and 6973725mN, as well as 100m RC drill centers south of 6973650mN. Furthermore, drilling results along the NW trend are ambiguous north of 6973750mN where diamond control is limited and RC drill fence 6973800mN did not intersect significant mineralization along the modeled trend. 50m to the north, high grade intercepts along the projected NNW trend in CFR1424 on RC fence 6973850mN with no corresponding mineralization in undercutting drill hole CFR1423, suggests additional structural complexity may be present in this area. A priority for future exploration at Decaf will be to gain further structural confidence in areas of 2017 high grade intercepts. Infill RC and diamond drilling, also focusing on areas of high grade, will further refine the current geological

### Java Condemnation

#### **Objective & Target Description**

The Java zone is located at km 14.5 along the Java road, approximately 4.5 km west of the main Supremo zone (Figure 8.9). The Java target consists of a c. 600x400m contourable gold-in-soil anomaly, including a peak value of 90ppb Au. No clear linear orientation is discernable from the soil-geochemistry, although geophysical and Lidar topography data defines a distinct magnetic and topographic NNW-SSE trending lineament east of the main soil anomaly. Two exploration trenches were excavated in 2016; one trench targeting high tenor soil-geochemistry, the second trench excavated across the topographic/magnetic lineament. 2016 trenching did not yield any significant results.

The Java zone soil anomaly coincides with a proposed location for construction of a new exploration camp. Given the unexplained elevated Au soil geochemistry at Java adjacent to planned infrastructure, Java's exploration priority was elevated during 2017 to delineate any potential mineralized trends that may have impacted site selection for camp construction. A systematic condemnation program was completed consisting of eight RC holes drilling in a south-north direction across the bulk of the Java soil anomaly

### 2017 Program(s) Completed

Eight RC holes, condemnation drilling, completed October 20th

#### Results

No drill holes returned intercepts ≥10gram-metres. A single highlight intercept is presented below:

2.04 g/t Au over 1.5 m (CFR1549)

Effective Date: June 14, 2018

### **Geologic Interpretation**

No significant mineralized structures have been intersected along trenched and drill tested portion of the Java zone, despite elevated Au-in-soil geochemistry and similar host lithologies to that of the prospective Supremo zone. Based on these premises, no significant structurally hosted mineralization is deemed to be present within the currently explored area of the Java zone.

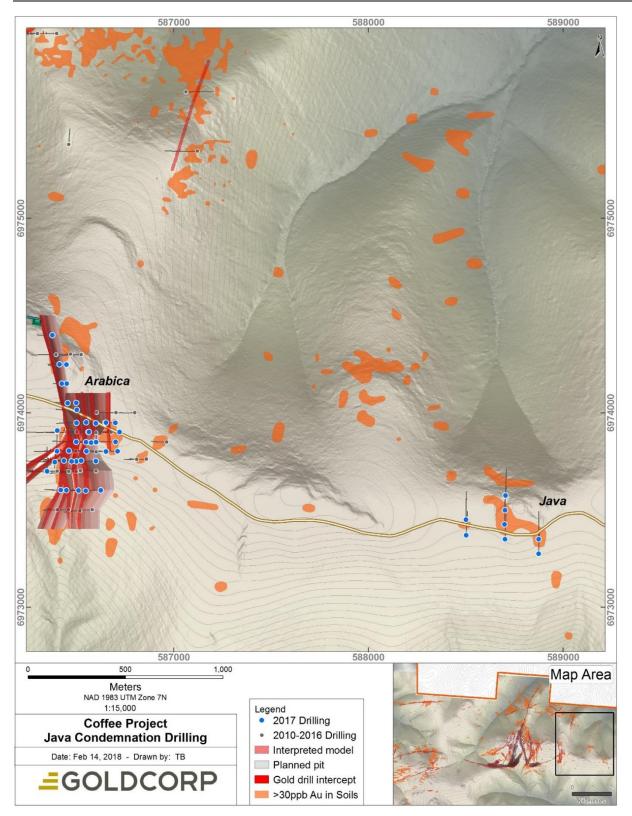


Figure 8.9: 2017 drilling at Java, overlain with Au-in-soil anomalies

### 8.3.2 Latte Area

### Latte Infill

### **Objective & Target Description**

Latte contains 809,000 oz (measured and indicated) Au at 1.44 g/t Au, hosted within Latte-style heap leach amenable oxide mineralization. Latte is located 1.4 km south-west of the top of Supremo, with a trucking distance of c. 500 m to the planned crushing facility (Figure 8.10).

First tested in 2010, trenching and drilling targeted a broad E-W trending high tenor gold-in-soil anomaly coincident with an air mag linear low, interpreted as potentially hosting Supremo-style mineralization. Historical drilling highlights include 1.86 g/t over 70m in CFD0011, 9.61 g/t over 17m in CFD0082, and 11.05g/t over 26m in CFD0618. The deposit has all of the necessary characteristics to be included in the proposed Coffee mine plan, such as dominantly oxide mineralization, contains economic grade and tonnage, requiring a low strip-ratio for open pit mining techniques. Latte has been systematically explored and developed since discovery and iterative drill programs have successively increased the degree of geostatistical confidence of the Latte resources. As the project is approaching a pre-mining construction phase, additional infill drilling was warranted for 2017 with the aim of derisking the first three years of planned production within the designed Latte pit by increasing geostatistical resource confidence to the measured category.

#### 2017 Program(s) Completed

Drilling was completed in two phases:

Phase 1: completed May 14<sup>th</sup>, comprised of 103 RC holes for a total of 10,127m.

Phase 2: completed June 9<sup>th</sup>, comprised of 35 diamond holes for a total of 6,034m.

#### Results

Ninety seven drill holes returned intercepts ≥10gram-metres. Highlight drill results from all 2017 programs include:

2.76 g/t Au over 59 m (CFD0634)

2.35 g/t Au over 84 m (CFD0642)

3.93 g/t Au over 54.86 m (CFR1349)

5.78 g/t Au over 36.58 m (CFR1367)

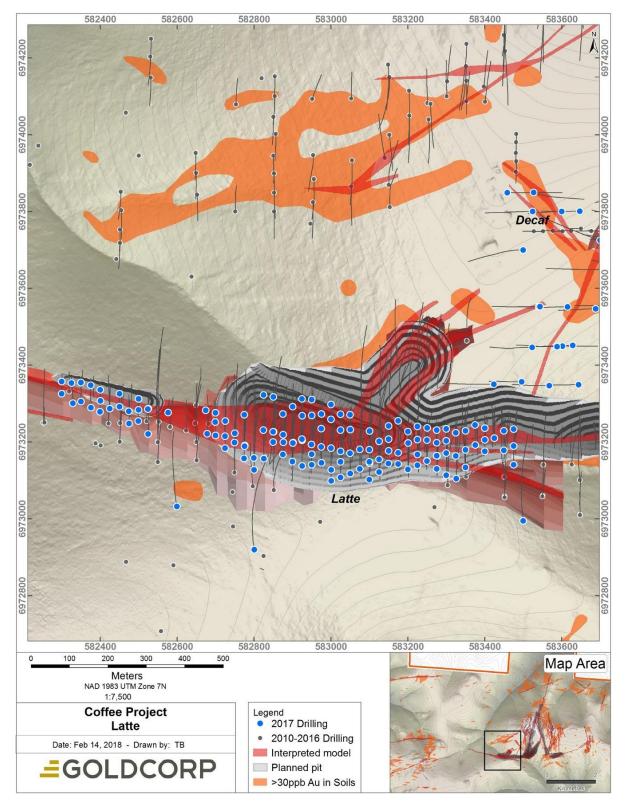


Figure 8.10: 2017 Latte infill program drilling, interpreted mineralized trend, Latte block model and planned pits in background, overlain with Au-in-soil anomalies.

Effective Date: June 14, 2018

#### **Geologic Interpretation**

Mineralization at Latte is hosted within a series of steeply south dipping, east-west striking panels that gently anastomose and pinch and swell along strike. The open pit extractable deposit represents a medium grade oxide resource that is amenable to open pit mining with cyanide heap-leach extraction. Oxidation is strong to intense to approximately 75-100mbs, then transitions to fresh sulphide mineralization at approximately 150mbs. Latte is hosted primarily within biotite-quartz-feldspar schists of the Klondike assemblage with lenses of marble, ultramafics and metabasalt intercalated within the schistose unit. Mineralization is characterized by disseminated replacement style foliaform arsenian pyrite, which is 'fed' by intensely fractured to brecciated fault and shear structures. Mineralized structures remain open at depth, although limited deeper drilling coverage to date indicates a thinning of the structure down-dip. Total traceable strike length of the identified Latte structure is in excess of 2,100m.

The results of 2017 Latte infill drilling completed during April-June confirmed the geologic model, upgraded resource classification from indicated to measured within the Latte planned open pit.

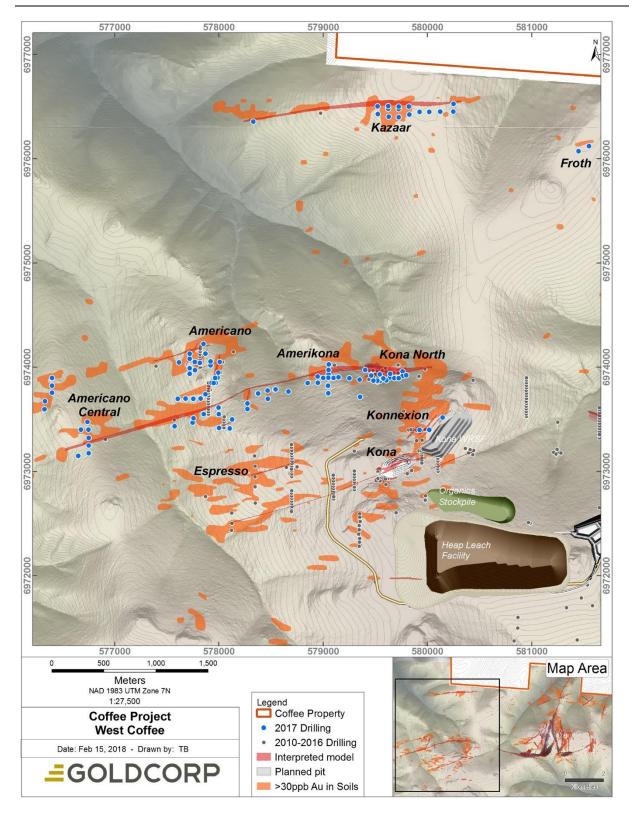


Figure 8.11: 2017 West Coffee Exploration overview, interpreted mineralized trends (red) in background, overlain with Au-in-soil anomalies.

### 8.3.3 Coffee West

### Americano

### **Objective & Target Description**

Americano is a geochemical and geophysical anomaly located approximately 2km north-west of the proposed Kona mine-pit in the western extent of the Coffee property (Figure 8.12). The soil anomaly covers an area of approximately 800m by 1600m, and comprises of a parallel set of 070° trending semi-linear gold-in-soil anomalies; Americano North and South Limbs. These sub-parallel soil trends are semi-contiguous with coincident 070° aeromagnetic lows, as well as cross-cut by an 020° trending conjugate or linking structure. Most prominent of these interpreted cross-structures is the Americano Link target, which creates a NNE trending link between the parallel North and South limbs. The Americano South Limb forms part of an interpreted large-scale structural corridor stretching over c. 4.2km of strike length, from Americano Central in the west to Kona North in the east.

Early exploration in 2010 consisted of a series of CanDig trenches and eight exploratory diamond drill holes targeting high tenor gold-in-soil geochemistry. 2010 drilling returned a number of promising intercepts, including 2.36 g/t Au over 18m in CFD0064 drilled at the Link target. Additional trenching was attempted in 2014, although the program was largely unsuccessful due to pervasive permafrost preventing bedrock excavation. No further exploration work was completed at Americano during 2015 due to a shift in exploration focus to infill drilling in support of the 2016 Kaminak Feasibility Study.

While the extent and geometries of the mineralized structures was not fully resolved based on previous drilling, promising intercepts from 2010 and 2016 drilling programs provided compelling evidence for the potential of high-grade mineralization over considerable strike-lengths and warranted further follow-up in 2017. The 2017 drilling program at Americano was designed to systematically undercut and step-out from previously intersected mineralization along the interpreted 070° and 020° mineralized trends, as well as providing additional structural control via additional diamond drilling. A second objective was to explore the potential of near surface oxide facies gold mineralization up dip of previous high grade intercepts.

### 2017 Program(s) Completed

Drilling spread over June-October at three main targets:

- North Limb: 3 DDH and 8 RC for 1881m
- South Limb: 3 DDH (including one redrill) and 7 RC for 1722m
- Link: 1 DDH and 11 RC for 1787m

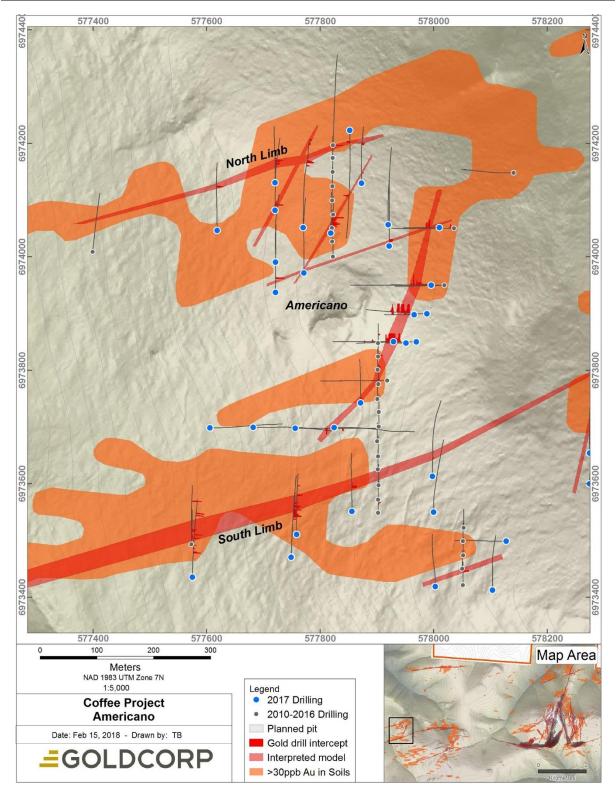


Figure 8.12: 2017 drilling at Americano, interpreted mineralized trends (red) in background, overlain with Au-in-soil anomalies.

#### Results

Eighteen drill holes returned intercepts ≥10gram-metres. Highlight drill results from all 2017 programs include:

7.24 g/t Au over 30.5 m (CFR1452, Link)

5.68 g/t Au over 32 m (CFD0688, Link)

4.24 g/t Au over 29 m (CFR1524)

#### Geologic Interpretation

2017 RC and diamond drilling at Americano successfully intersected dominantly sulphide mineralization along-strike of the 070° and 020° trending structural corridors. Two holes drilled along the Americano Link structure contain some of the best intercepts drilled in Coffee West to date: 5.68 g/t Au over 32m in CFD0688 (182 gram meters), and 7.24 g/t Au over 30.5m in CFR1452 (221 gram meters), however both intercept contained predominantly sulphide mineralization.

Intersected mineralization at Americano was associated with variable sericite±clay±silica alteration and characterized by three main mineralization styles: i) disseminated mineralization with sulphides pseudo-morphing biotite, often associated with strong bleaching of the host rock; ii) vein-controlled mineralization with frequent sulphide stringers and veinlets; iii) strongly disaggregated/brecciated and clay-altered host rock with a sulphide-clay matrix. Similar styles of mineralization have been observed at the Kona North and Kona deposits to the west.

Drilling along the North Limb trend confirmed a narrow steeply dipping mineralized structure with an overriding 070° mineralized trend along the northern edge of the zone for a total drilled strike length of c. 275m. However, structural ambiguities still exists on the southern edge of the North Limb trend.

An additional objective of the 2017 drilling at Americano was to follow-up on a high grade 2016 SRC intercept (2.7g/t Au over 28.96m, CFR1200, including an upper zone of oxide mineralization down to c. 6 mbs), which was initially interpreted to reside in the 070° trend. Several approaches of gaining structural information for this intercept were taken: east and west oriented DDH and RC step-outs for resolving lateral continuity, and a diamond undercut of the intercept for gaining structural measurements within the zone as well as delineating vertical continuity. A lack of structural measurements in the diamond undercut (no competent oriented core) hampered these efforts. A lack of intersections of similar widths and grade in both undercut and step-outs suggest that the 2016 intercept do not reside in the previously assigned 070° trend. Instead the drill hole may have been drilled obliquely to an 020° trending structure (drilled on northern azimuth), running parallel to the Link structure c. 200m to the east. Although no definite structural information exists to support this hypothesis, two narrow deep intercepts in step-out holes CFD0700 and CFR1459 25m and 50m to the east respectively, support this interpretation.

Drilling on the Southern Limb confirmed mineralization within the previously interpreted 070° structural corridor. Mineralization was intersected both in undercuts of 2010 diamond drilling and in lateral step-outs along strike, including a best intercept of 2.45 g/t Au over 19m in CFD0689. Mineralization is interpreted to follow a brittle structure dipping steeply to the south and trending c. 070°. The vertical geometry interpretation of this structure remains tentative due to the current wide spacing of undercutting drill holes (180-250m). Structural measurements of frequent conjugate fracture sets and infilled veins trending near 020°, both in fresh and mineralized rocks, indicate that SSW-NNE trending conjugate structures may have had a strong influence on creating zones of structural dilation also along the Southern Limb target.

Step-out drilling from 2010 diamond holes along the Americano Link structures returned the three best Coffee West exploration intercepts of the year in drill holes CFR1452, CFR1524, and CFD0688. High-grade mineralization was also extended ca 115m SSW along strike from 2010 drilling, and vertical continuity was confirmed up-dip of 2010 drilling in two overcutting RC holes. While these wide high-grade intercepts are impressive, it should be noted that they may not indicate true width. Current drilling indicate a strike/dip of 020°/86°NW of the mineralized structure, indicating that the due west orientation of current drilling may have resulted in oblique intercepts of mineralization. In addition, the intercepts are predominantly of sulphide mineralization.

### Americano Central

### **Objective & Target Description**

The Americano Central zone is a previously drilled (2010) exploration target located c 3km west of the Kona pit, and c. 3.8 km WNW of the planned Heap Leach facility (Figure 8.13). Americano Central is defined as a distinct ridge-top soil anomaly, separated from Americano by a valley drainage. Americano Central is comprised of two parallel and linear 070° trending gold-in-soil anomalies, up to c. 2km along-strike. These linear Au-in-soil trends are semi-contiguous with two WSW-ENE aeromagnetic lineaments, overprinted with an interpreted SSW-NNE conjugate aeromagnetic fabric. The Americano Central trends are interpreted to comprise westward continuations of the prospective Americano North Limb soil and aeromagnetic trend, and the Americano South Limb-AmeriKona-Kona North mineralized corridor, with potential for total strike-lengths of c.3.5km and 4.2km, respectively.

Diamond drill hole CFD0062, drilled during a wide-scoped trenching and drilling campaign at Coffee in 2010, tested an Au-in-soil sample (~712ppb) along the southern end of two 070° trending soil anomalies. 2010 drilling returned an intercept of 2.42g/t Au over 4m in strongly clay altered and faulted granite. 2010 CanDig trenching did not reach bedrock, although samples returning up to 0.5 g/t Au were collected. No additional exploration activities have been carried out at Americano Central since 2010.

### 2017 Program(s) Completed

The 2017 Americano Central RC exploration drilling program aimed to follow-up on 2010 trenching and drilling results and consisted of 10 drill holes on two fences targeting the two parallel 070° trending Americano Central soil and geophysical anomalies. An additional two RC holes were drilled following promising results.

### Results

Three drill holes returned added intercepts ≥10gram-metres. Highlight drill results from the 2017 programs include:

- 1.58 g/t Au over 9.1 m (CFR1477)
- 4.46 g/t Au over 3.1 m (CFR1474)
- 0.79 g/t Au over 9.1 m (CFR1474)
- 1.55 g/t Au over 4.6 m (CFR1482)

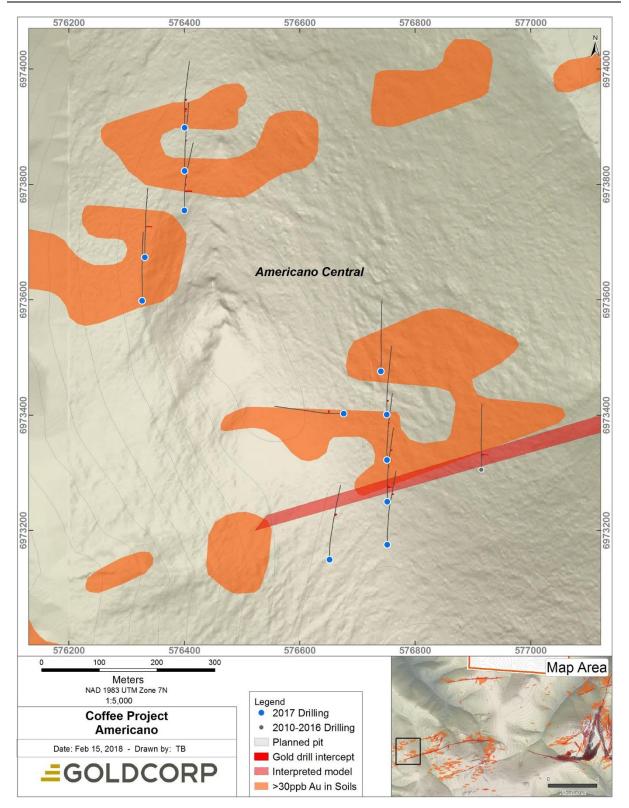


Figure 8.13: 2017 drilling at Americano Central, interpreted mineralized trends (red) in background, overlain with Au-in-soil anomalies.

### Geologic Interpretation

2017 follow-up RC exploration drilling successfully intersected sulphide facies gold mineralization across two parallel 070° trending large-scale mineralized trends at Americano Central. Intercepts ranged from low to moderate grades and were hosted in silica-sericite-clay altered Coffee Creek monzogranite, consistent with mineralization intersected at other targets in Coffee West.

The five holes which tested the northern half of the soil anomaly were successful in intersecting multiple thin intervals of strong (>1000ppm) arsenic anomalism, with the best intersections found in CFR1474 and CFR1476. Some ambiguity exists in results from this drill fence: intercepts up-hole in CFR1476 are not undercut in CFR1475. This observation may be explained by a mineralized structure dipping steeply to the north, or potentially that the drill fence was drilling at an oblique angle to a more SSW-NNE trending structure. Multiple thin zones of mineralization intersected in the upper reaches of CFR1474 are similarly not represented in CFR1473, however, of note is that CFR1473 was drilled 75 m off-section to the west.

Drill holes that tested the southern soil anomaly successfully intersected a series of narrow mineralized structures. A wide zone of sulphide mineralization was intersected in CFR1477 from 24.38-41.15m down hole, this zone was subsequently undercut in CFR1481 to establish the projected down-dip continuity of this mineralized structure. The CFR1481 undercut successfully intersected two narrower zones below the wide intercept in CFR1477. The vertical extent of intercepts in CFR1477 and CFR1481 is interpreted to represent the westward continuation of mineralization intersected in CFD0062, trending 070° and dipping steeply to the south. A narrow intercept in CFR1482, a step-out hole 100m to the west, appears to be part of the same 070° along the trend. However, no structural control from oriented drill core is available to confirm this interpretation. Additional narrow intercepts to the north on the drill fence may represent a series of narrow stacked structures on the same trend.

As observed at Americano c. 1 km to the west, mineralization at Coffee West appears to follow largescale 070° trending structures, although high-grade mineralization has also been intercepted along conjugate 020° trending "link" structures which appear to act as upgraders. Geometries of Au-in-soil geochemistry and aeromagnetic fabrics at Americano Central indicate that there is potential for similar structural interactions also in this area. However, drilling to date at Americano has not intersected oxide mineralization, making the target less attractive for further targeting these potential zones of structural interaction.

# AmeriKona and AmeriKona Trend

### **Objective & Target Description**

AmeriKona is located 400m west of the Kona North deposit (inferred resource: 0.8Mt at 1.7g/t Au for 46Koz (OX+UT+MT, base case cutoffs)), and is situated approximately 2.5km NW of the future planned heap leach facility (Figure 8.14). AmeriKona consists of a semi-continuous 500x300m Auin-soil anomaly adjacent to a distinct 070°-080° trending geophysical magnetic low, which is interpreted to be the westward continuation of the Kona North mineralized structure. This magnetic lineament extends c. 1km to the west towards the Americano South Limb zone with semi-contiguous gold-in-soil geochemistry. The total c. 1.4km of strike along the magnetic low between Americano South Limb and Kona North constitutes the AmeriKona Trend. The proximity along strike to confirmed high grade dominantly sulphide mineralization at Kona North, in combination with being situated at a higher elevation, outlines AmeriKona highly prospective as a near-mine target for openpitable near surface oxide gold.

The zone was first explored in two exploration trenches in 2014, although persistent permafrost prevented successful penetration to bedrock. A single diamond hole targeting a high tenor soil returning no significant values, was also drilled in 2014. Due to lack of salient results and a shift of exploration focus to infill drilling in support of the Coffee Preliminary Economic Assessment and Feasibility Study (2014-2015), exploration at AmeriKona was put on hold. 2014-2016 drilling results from nearby Kona North indicated significant downslope soil-geochemistry dispersion on north facing slopes in the area. Applying observations of soil dispersion combined with geophysical evidence of a westward continuation of the Kona North mineralized structure at AmeriKona, a follow-up drill program was warranted during the 2017 field season.

### 2017 Program(s) Completed

Drilling spread over two campaigns:

Phase 1: completed July 21<sup>st</sup>, comprised of ten RC holes and a single diamond hole; initial systematic RC traverse of central AmeriKona magnetic low upslope of soil-geochemistry, followed by systematic E and W 50m step-out drilling to 200m drilled strike-length.

Phase 2: completed by October 5<sup>th</sup>, comprised of nine RC holes and two diamond holes, wider spaced step-out drilling (c.75-200m drill centers) E and W along the AmeriKona in an effort to evaluate strike-continuity, as well as connecting mineralization to Kona North to the east and Americano to the west

### Results

Eleven drill holes returned intercepts ≥10gram-metres. Highlight drill results from all 2017 programs include:

1.65 g/t Au over 29 m (CFR1469)

3.67 g/t Au over 10.7 m (CFR1518)

1.37 g/t Au over 27.4 m (CFR1468)

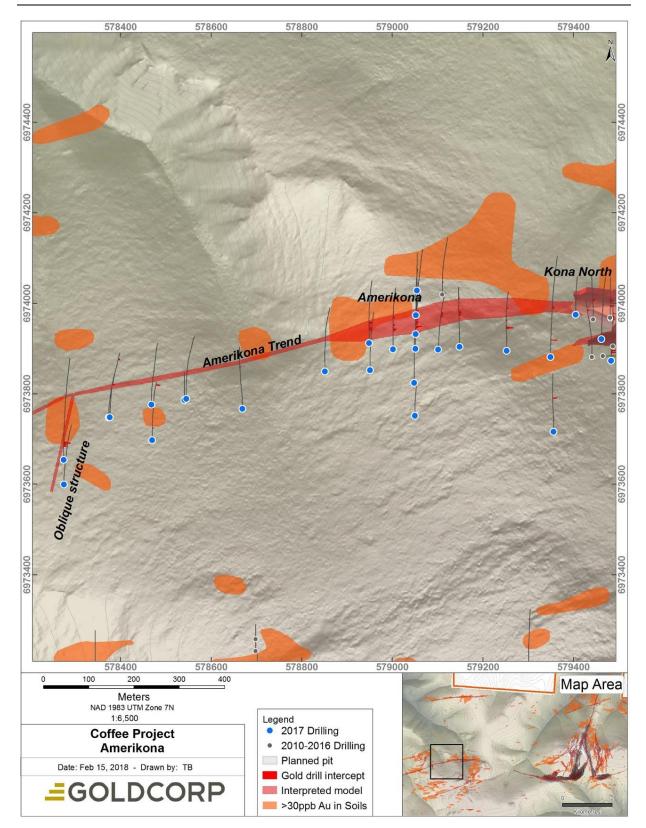


Figure 8.14: 2017 drilling at AmeriKona and along AmeriKona Trend, interpreted mineralized trends (red) in background, overlain with Au-in-soil anomalies.

#### Geologic Interpretation

2017 drilling programs at AmeriKona have successfully delineated transitional to oxide gold mineralization above mine-average grade down to c. 75-100m below surface along a near E-W trending structural corridor, on trend with a westward continuation of the Kona North deposit to the east. Mineralization has been defined at 50m drill centers to 200m along-strike continuity, centered on 579050mE. An additional 200m has been delineated to the east on 100m drill spacing, confirming a connection with mineralized structures at Kona North. Results from wide spaced drilling along the western extension of the AmeriKona Trend defined low grade transitional to sulphide gold mineralization along a series of narrow structures, on trend with the AmeriKona geophysical low (currently c. 400m strike on 75-100m drill spacing, centered on 578470mE). However, potential for oxide high-grade gold was also discovered along a prominent 020° trending geophysical low that appears to truncate the AmeriKona geophysical low at 578300mE.

Analogous to Kona North, AmeriKona drilling to date appear to have confirmed significant downslope soil dispersion in the area. The majority of AmeriKona gold intercepts are contiguous with the distinct E-W trending AmeriKona aeromagnetic low and are located upslope of anomalous gold-in-soil geochemistry. As such, future drill planning at AmeriKona should compensate for the observed downslope soil dispersion, particularly on north facing aspects prone to persistent permafrost.

From limited petrographic work completed to date at AmeriKona mineralization appears to be dominated by disseminated biotite replacement, although limonite matrix breccias have also been described in diamond core samples. These observations are analogous to previous petrographic work within the granites, where the sulphidation reaction has been observed in thin section to behave similarly to the schistose units whereby the gold-bearing mineralizing fluid rich in CO2-As-Sb and S reacts with biotite. Fe from the biotite is used to generate Au bearing As-rich pyrite, while illite and dolomite replace the Fe depleted biotite. A characteristic alteration pattern of bleaching, strong clay development, degradation of feldspars and absence of biotite is indicative of a well altered mineralized zone.

Interestingly, a structural measurement of a breccia contact from CFD0681 (61.8m; strike/dip of 034°/78° SE), suggests additional structural complexity other than the general E-W trend may be present at AmeriKona. This potential conjugate structure may represent a corresponding upgrading structure as observed at Kona North and Americano (Link structure). A pattern of 070°-090° trending mineralized structures with intervening ~020° trending upgrading splays appears to be a repeating occurrence in Coffee West, providing significant prospectivity along the underexplored AmeriKona Trend. Intersected high-grade oxide gold mineralization in CFD0699 along a 020° trending geophysical low supports the potential for additional structural interaction along the western AmeriKona Trend

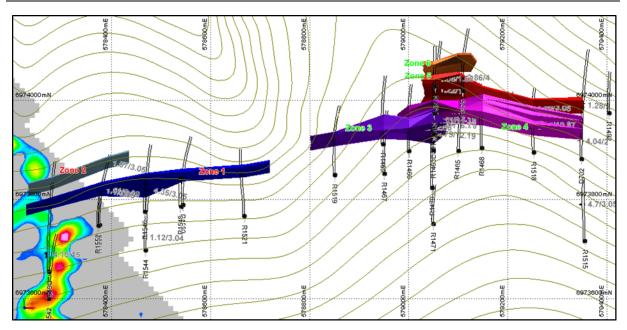


Figure 8.15: Plan view of AmeriKona showing topography (brown lines), drillhole traces, mineralized zones (coloured wireframes), composited intercepts (grey text).

# Kona North

### **Objective & Target Description**

Kona North currently hosts 45,000 oz (inferred OX+UT+MT) at 1.74gpt, and 62,000oz (inferred LT+S) at 3.03gpt. An update of this resource to reflect drilling from 2017 is in progress and expected by the end of Q1 2018. Kona North is located 900m north of the proposed Kona pit, with a trucking distance to the planned crushing facility of c. 6.2km (Figure 8.16).

First tested in 2010, diamond drilling targeted a broad, east-west trending, high-tenor, gold-in-soil anomaly which was coincident with a linear aeromagnetic low and interpreted as potentially hosting Kona style mineralization. Drilling highlights from follow-up drilling in 2014 included 3.55g/t Au over 28m in CFD0376 and 4.85g/t Au over 16m in CFD0435. Due to Kona North being primarily sulphide or lower transitional, it did not warrant an increase in geostatistical confidence until 2017. Kona North hosts some of the highest consistent grade within the Coffee resource portfolio project, which motivated further delineation to understand its full oxide-transitional potential. Infill and minor stepout drilling is aimed at enabling an upgraded confidence in the updated resource model to Indicated (in progress) in order to then estimate an initial reserve.

### 2017 Program(s) Completed

Infill and step out drilling was executed with both RC and diamond drills.

The RC portion of the infill program was comprised of 13 RC holes (1760m total) was completed on October 8<sup>th</sup>.The diamond drill portion of the program was compromised of 5 diamond holes (1021m total) and was completed on August 2<sup>nd</sup>. The program was designed to intersect the modelled ore body at targeted locations to provide the best distribution of geostatistical information. Step-out holes were included in this study to test the immediate strike length of the previously modeled mineralized zone.

### Results

Fifteen drill holes returned intercepts ≥10gram-metres. Highlight drill results from the 2017 infill program include:

- 3.45 g/t Au over 35.05 m (CFR1532)
- 3.14 g/t Au over 44.2 m (CFR1554)
- 6.29 g/t Au over 16 m (CFD0683)
- 3.04 g/t Au over 67 m (CFD0685)

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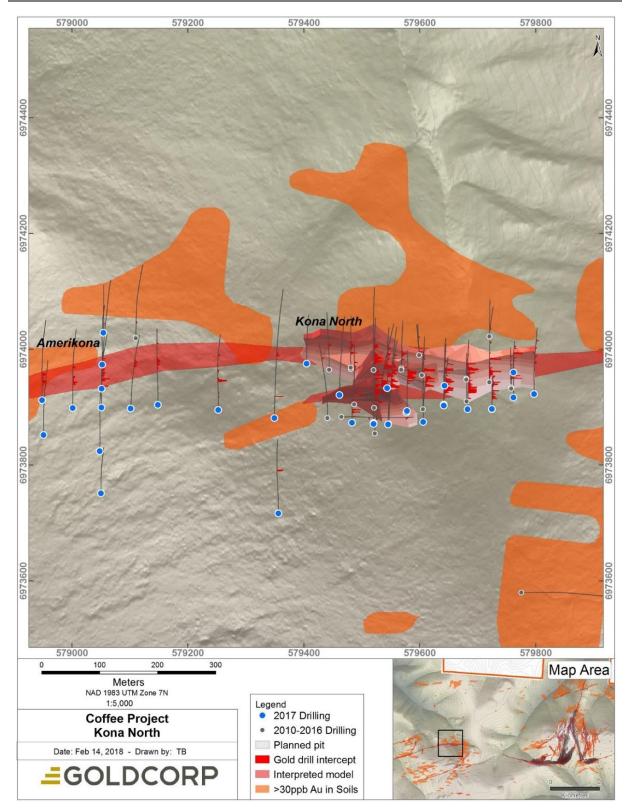


Figure 8.16: 2017 infill drilling at Kona North, interpreted mineralized trends (red) and block model in background, overlain with Au-in-soil anomalies.

#### Geologic Interpretation

Kona North is a near-mine, high-grade primarily-sulphide target. Geophysical data indicates that it potentially occurs in a dilatational regime between a NW-SE trending lithological contact and an E-W trending fault structure. The mineralization itself is interpreted to dip steeply to the south as a stacked series of high-grade east-west trending planes that pinch and swell along strike. A SW-NE trending splay that truncates against the southern hanging wall appears to upgrade the zone in its west-central portion. Structurally this zone is somewhat unique to the Coffee project as the mineralization does not appear to be related to intrusive lithologies, as seen at Kona, Latte, Supremo T3, and Arabica.

Due to the proximity of the zone to the lithological contact between the granite and the biotite schist, there is an interpreted lithological influence or control on high-grade mineralization. It appears the granite has undergone a higher degree of brittle deformation than schistose units to the north, and therefore may have experienced more mineralizing fluid flow. Mineralization north of the contact (in the schistose rocks) will likely appear as thin low grade pockets related to brecciation, while mineralization south of the contact is likely to be higher-grade, disseminated, replacement style mineralization following brittle east-west sub parallel fracture zones. A contributing factor to the higher grade observed in the granite versus the schistose rocks is that the granite hosts a larger abundance of available biotite for the sulphidation reaction to occur. This may be related to older hydrothermal events resulting in biotite-destruction within the schistose rocks that is immediately adjacent to the granite contact, or potentially a lack of Fe to form biotite within the schistose lithology during metamorphism.

Multiple mineralization/ sulphide styles that have been observed from ongoing petrographic work include: disseminated biotite replacement, rhombohedral pyrite, bladed arsenopyrite, pyrrhotite (to be confirmed), sulphidized clast breccias and sulphidized matrix breccias. Current interpretation relates all of these distinct styles to the same series of events evident in other mineralized structures within the Coffee project. The sulphidation reaction within the granites has been observed in thin section to behave similarly to the schistose units whereby the gold-bearing mineralizing fluid rich in CO<sub>2</sub>-As-Sb and S reacts with biotite. Fe from the biotite is used to generate Au bearing As-rich pyrite, while illite and dolomite replace the Fe depleted biotite. A characteristic alteration pattern of bleaching, clay development, degradation of feldspars and absence of biotite is indicative of a strongly altered and mineralized zone.

## Konnexion

## **Objective & Target Description**

The target at Konnexion is a near mine, large geochemical soil signature (~800x400m) with anomalous gold in soils up to 466ppb. Konnexion is located between Kona and Kona North and approximately 1.25km northwest from the Heap Leach Pad and 450m north from the Kona pit (Figure 8.17).

Trenching occurred in 2009, 2010, and 2014 in the area of the gold in soil signature, however, persistent permafrost hindered successful excavation of bedrock. 12 RC holes were drilled in 2011 targeting the high tenor soil anomaly and coincident air mag linear low. Drilling was conducted east to west along a 10 hole fence (6973400mN) with ~25m drill spacing with a 2 hole fence (6973300mN) stepped to the south 100m. Two main zones can be traced between multiple holes along the 6973400mN fence with no continuity/intercepts in the southern fence. A single diamond hole was

drilled in 2014 targeting the highest tenor soils in the middle of the soil anomaly. Drilling was conducted west to east and returned no significant values. The target was not followed up until 2017.

Best intercepts from 2011 RC drilling at 6973300mN at Konnexion include:

2.03 g/t Au over 13.7m (CFR0094, total intercepts of 32 gram-meters)

1.03 g/t Au over 25.9m (CFR0095, total of 26.6 gram-meters)

2.16 g/t Au over 6.1m (CFR0098, total intercepts of 29.7 gram-meters)

#### 2017 Program(s) Completed

Drilling took place over a single campaign in July 2017. A fence of 2 diamond holes followed up the RC fence along 6973400mN to provide structural control for the historical intercepts. A third diamond hole was a ~100m step out to the north to delineate the structure modeled from core measurements in the first 2 diamond holes. Hole locations are seen below in Figure 8.17.

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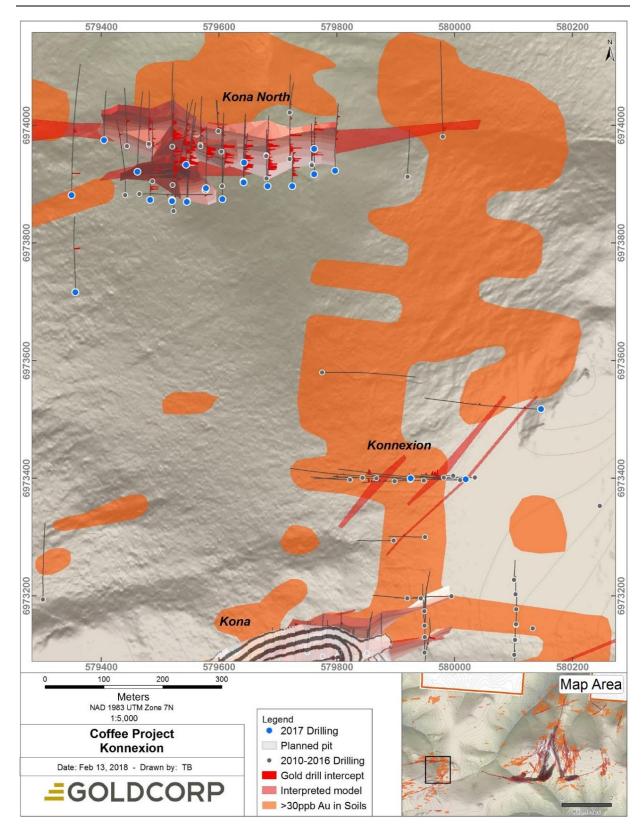


Figure 8.17: 2017 Konnexion diamond drilling, interpreted mineralized trends (red) in background, overlain with Au-in-soil anomalies.

#### Results

Drilling failed to return intercepts ≥10gram-meters with the original RC fence values being unable to be reproduced. Highlight drill results from the 2017 program include:

1.54g/t Au over 3m (CFD0677)

0.83g/t Au over 5m (CFD0679)

#### **Geological Interpretation**

The 2017 drilling campaign did not elucidate structural geometry of the previous mineralization as the historic zones targeted did not reproduce similar assay results. Structural measurements from altered zones within the projected zone in CFD0677 and CFD0678 suggested a NNE to NE trending structure that was intersected in CFD0679. Multiple thin, lower grade zones in CFD0679 implicate the possibilities of stacked structures in the area. The variations in assay results suggest that an E-W trending structure may have been drilled obliquely to parallel in 2011 and missed in the 2017 campaign. The measured NNE to NE trends in conjunction with observed near E-W trends adjacent to the Konnexion zone (Kona), are consistent with observations from the Americano zone to the west, where both E-W and NNE structural trends have yielded significant gold intercepts.

### 8.3.4 Regional

## Kazaar & Froth

#### **Objective & Target Description**

The Kazaar zone consists of an approximately 2.5km long E-W trending soil anomaly (up to 753ppb Au-in-soil) that is located 2.5km north of Kona North and 5km northwest of the Supremo deposit (Figure 8.18). The soil anomaly is coincident with a semi-continuous E-W trending magnetic low that extends across a gentle ridgetop. The Froth target is located c. 1.8km east of Kazaar, and is comprised of a series of up to 700m E-W to WNW-ESE semi-linear Au soil-geochemistry trends (up to 116ppb), as well as a general E-W trending aeromagnetic fabric with potential SW-NE splays. The slopes of the creek valley separating the two zones are largely on northerly aspects with high potential for permafrost masking the soil-geochemistry response. Potentially masked soil-geochemistry and a general E-W aeromagnetic fabric in the area may indicate that the Froth and Kazaar prospects reside within the same E-W structural corridor.

Initial soil sampling in the Kazaar-Froth area was executed in 2011, followed-up by prospecting work and a 50x50m infill soil program over Kazaar in early 2016. A diamond drill program consisting of three planned holes targeting high tenor soils was partially completed in 2016; the second drill hole of the program was abandoned prior to reaching target depth due to mechanical issues with the drill rig and water source freeze-up. Results from abandoned drill hole CFD0625 returned weak oxide mineralization: 1.02g/t Au over 6m from 25m. No further exploration work has occurred at Froth outside of 2011 soil sampling. Potential for structurally hosted oxide gold mineralization over significant strike-length motivated a redrill of the abandoned 2016 diamond drill hole, as well as exploratory RC drilling c. 550m east along strike of 2016 diamond drilling to test for strike-continuity along the Kazaar East soil anomaly.

#### 2017 Program(s) Completed

Drilling spread over four campaigns:

Phase 1: redrill of abandoned hole CFD0625, completed August 5th

Phase 2: systematic exploratory RC drill testing of main eastern Kazaar soil-anomaly (15 holes), completed September 3<sup>rd</sup>

Phase 3: exploratory RC drilling at Froth, completed September 1st

Phase 4: Additional step-out RC drilling at eastern Kazaar to test projected strike-continuity in area of potentially masked soil response, completed September 11<sup>th</sup>

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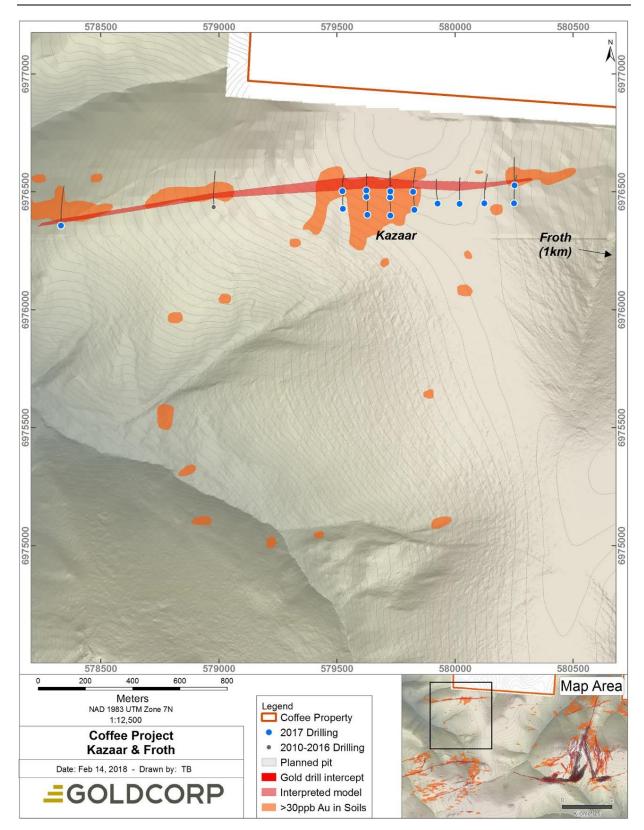


Figure 8.18: 2017 drilling at Kazaar, interpreted mineralized trends (red) in background, overlain with Au-in-soil anomalies.

#### Results

Five drill holes returned intercepts ≥10gram-metres. Highlight drill results from all 2017 programs include:

1.03 g/t Au over 19.8 m (CFR1500)

0.8 g/t Au over 35.1 m (CFR11505)

1.32 g/t Au over 13.7 m (CFR1512)

### **Geologic Interpretation**

The redrill of abandoned 2016 diamond hole CFD0625 in CFD0686 confirmed mineralization intersected in 2016. No significant deeper zones of mineralization were intersected in CFD0686. The 2017 Kazaar RC drill programs successfully delineated low grade gold mineralization along an E-W trending mineralized structure dipping steeply to the south over a total strike-length of 730m. A tentative strike/dip of the structure of 097°/71° S has been inferred from gold intercepts, however, no diamond drilling control currently exists along this extent of the Kazaar zone. Mineralization is less intense compared to elsewhere on the Coffee property; coincident alteration within the mineralized structure was generally weak, and characterized by bleaching with moderate pervasive silica-sericite alteration and weak fracture controlled clays. Gold mineralization was generally within oxide to mid transitional facies, as well as scattered intervals of sulphide facies. Mineralization along the E-W trending Kazaar structure appears to pinch and swell along strike in a similar fashion as observed along mineralized structures within the main Coffee deposit. No significant mineralization was intersected at Froth to the east. The lack of typical Coffee resource grade results may indicate less intense deformation, alteration and mineralization, or that drilling was oriented oblique to a more SW-NE oriented structure. Of note is that one of the best 2017 RC intercepts at Kazaar East was drilled in an area along strike that has limited soil-geochemistry response, highlighting the potential for masked soils in the area. Soil response may be masked in a similar fashion within the dominantly northerly aspects of the creek valley separating the Kazaar and Froth targets. This potential E-W connection between Kazaar and Froth adds an additional 1.5km of unexplored strike-length to the currently interpreted 2.5km at Kazaar.

Based on currently available RC drill data at Kazaar East, the footwall of the mineralized zone is dominated by a fine-grained mafic dyke, while the hanging wall is defined by packages of ultramafics, orthogneiss intercalated with schistose rocks, and biotite schist at the top of the drilled stratigraphy. Mineralization occurring adjacent to a dyke is analogous to the prevailing style of mineralization observed at the Supremo deposit. These observed lithologies support the interpretation that the Kazaar area is additionally prospective insofar as it comprises the interpreted strike continuation of the Latte host sequence and in addition the geochemical anomaly strikes east-west which is parallel to the Latte trend.

## 8.3.5 Conclusions & Recommendations

The exploration programs completed at Coffee during 2017 were largely successful and most targets tested warrant additional work over the course of the 2018 program.

Highlights include the new discoveries of mod-high grade mineralization at Decaf and AmeriKona, and low grade mineralization over broad strike length at Kazaar. The Supremo Advanced Targets (T8-9, Arabica and Supremiato) produced maiden Inferred resource estimates.

# 9 Sample Preparation, Analyses and Security –

## 9.1.1 Historical Sampling

Soil samples collected by Mr. Shawn Ryan in 2007 were analyzed by Acme Analytical Laboratories (Acme) in Vancouver, BC. The Acme laboratory management system is International Standards Organization (ISO) 9001:2008 accredited by BSI America Inc. Acme implements a QA/QC system compliant with the ISO 9001 Model for Quality Assurance and ISO/IEC 17025 General Requirements for the Competence of Testing and Calibration Laboratories. Acme also participates in the CANMET and Geostats Pty. Ltd. round robin proficiency tests.

Soil samples were prepared using a conventional preparation procedure and analyzed for a suite of 36 elements using aqua regia digestion followed by inductively coupled plasma-atomic emission spectrometry (ICP-AES) on 15 g sub-samples (method code 1DX2).

There is no historical litho-geochemical (rock) sample data for the Coffee Gold Project.

## 9.1.2 Sampling by Kaminak 2009-2017

Kaminak conducts two main types of sampling; "soil" samples that are primarily used to direct exploration efforts across the property and "rock" samples, mainly derived from diamond and reverse circulation drilling, which are primarily used for the estimation of mineral resources. There are also a relatively small number of additional "grab" samples and samples collected from trenches for exploration and evaluation purposes, these are not used directly in the estimation of mineral resources. Kaminak used two primary laboratories for assaying samples collected during the 2009 through 2016 programs. One secondary laboratory was used for umpire or "check" assaying of drill samples only, which is described further below.

Soil samples collected between 2009 and 2017 were submitted to the Acme laboratory. The samples were prepared and assayed using the same methodology used to assay samples submitted in 2007. Soil samples were prepared using standard preparation procedures and analyzed for a suite of 36 elements using aqua regia digestion followed by ICP-AES on 15 g sub-samples (method code 1DX2).

All drill core, reverse circulation, trench, and grab samples collected from 2010 through 2017 were submitted to ALS Minerals for preparation and assaying. The management system of the ALS Group of laboratories is ISO 9001:2000 accredited by QMI Management Systems Registration. Samples were crushed and pulverized by the ALS Whitehorse preparation facility and shipped to ALS North Vancouver for assaying. If sample volumes at the Whitehorse preparation facility exceeded the capabilities of the facility, samples were distributed to the ALS preparation facilities in Terrace or Kamloops, with Kaminak permission. The North Vancouver laboratory is ISO/IEC 17025:2005 accredited by the Standards Council of Canada for certain testing procedures, including those used to assay samples submitted by Kaminak. ALS Minerals participates in international proficiency tests such as those managed by CANMET and Geostats Pty. Ltd.

All drill samples were individually sealed in polyore bags on site and shipped by commercial fixed wing charter aircraft (operated by Alkan Air Ltd. and Great River Air Ltd.) to Whitehorse or Dawson, then via road transport by expeditor or Kaminak personnel directly to ALS Minerals' preparation facility in Whitehorse. Samples were conveyed in rice sacks sealed and uniquely numbered with security tags

to minimize tampering. Security tags were tracked throughout transportation until receipt by ALS Minerals. No samples were reported tampered with from 2010 through to 2017.

Rock and core samples were prepared for assaying at the ALS Minerals preparation facility using a conventional preparation procedure (dry at 60° Celsius, crushed and sieved to 70% passing 10 mesh ASTM, pulverized to 85% passing 75 micron or better). Prepared samples were then transferred to ALS Minerals laboratory in North Vancouver where they were assayed for gold using a conventional fire assay procedure (ICP-AES) on 30 g sub-samples (50 g samples were used in 2010). In 2010 and 2011, all samples were also analyzed for 35 elements using an aqua regia digestion and ICP-AES finish on 5 g sub-samples. In 2012, samples from only select drill holes (54 boreholes in total) were submitted for the 35-element analysis. In 2013, samples from 87 drill holes were submitted for the 35-element analysis. No samples received 35-element analysis in 2015, however all samples submitted to ALS in 2016 received the 35-element analysis. In 2017, analysis was chosen on a case-by-case basis, with new zones being fully assayed, whereas infill of e.g. inferred and indicated resources was assayed for Au & As only.

Fire-assayed samples with grades in excess of 10 g/t gold were re-assayed from a second 30 g split (50 g split in 2010) using a fire assay procedure and a gravimetric finish. From 2012 to 2017, samples with grades in excess of 20 g/t gold were submitted for screened fire assay from a 1,000 g coarse reject split. The screened fire assay was passed through a 100 micron mesh, with the oversize fraction) undergoing gravimetric analysis following fusion, whereas the undersize fraction was split into two 50 g samples and analyzed using atomic absorption. The average between the two minus fractions was then combined with the plus fraction to provide the total weighted average gold.

From 2013 to 2017 samples with grades greater than 0.3 g/t gold were submitted for cyanide soluble gold assay. For this analysis, a 30 g sub-sample was weighed in a closed 100 ml plastic vessel. 60 ml of sodium cyanide solution (0.25% NaCN, 0.05% NaOH) was then added and the sample shaken until homogenized. Following homogenization, the solution was rolled for an hour before an aliquot was taken and centrifuged. Finally, the sample was analyzed by atomic absorption spectrometry. In 2013, 8,016 sample pulps from previous drilling programs (2010 through 2013 inclusive) were subjected to cyanide leach analyses. A total of 6,965 samples were analyzed by cyanide leaching from 2014 to 2016 drilling campaigns. In 2017, 5,169 samples were analyzed by cyanide leaching.

In 2010, samples with a silver grade of more than 100 g/t (two samples) were re-assayed using either an "ore grade" digestion followed by ICP-AES or by conventional fire assay with gravimetric finish on 50 g charges. Two samples from 2011 and two samples from 2012 reported more than 100 g/t silver, but were not re-assayed. Eight samples from the 2016 drilling and sampling program returned greater than 100 g/t silver. No samples from 2013 to 2017 drilling returned greater than 100 g/t silver.

Approximately 1% of all master pulps from core and reverse circulation samples, submitted to ALS Minerals in 2010 through 2017, were submitted at the conclusion of each exploration season to Acme Labs, now under the operating name Bureau Veritas Commodities Canada, for umpire check assaying. 2017 umpire check assaying is underway at time of writing, and results will be detailed in a final 2017 QAQC report once all assays are received.

Bureau Veritas' Vancouver laboratory is certified ISO9001:2008 by BSI Group America Inc. for the provision of assays and geochemical analyses. Bureau Veritas used the same methods to analyze the umpire samples as described above, including developing a customized cyanide leach method in

Effective Date: June 14, 2018

2014 to replicate the one used by ALS. The number of umpire samples analyzed by Bureau Veritas each year is detailed in Table 9-1.

All zones drilled in a given year were represented in the check-assay samples. Although samples covered a wide range of assay results (from detection limit to greater than 20 g/t gold), preference was given to individual samples that displayed greater than 0.3 g/t gold in order to provide an accurate test of laboratory performance and avoid analyzing a large number of near-detection level samples. Kaminak did not use an umpire laboratory to verify the assay results for soil samples.

Year	Umpire Samples
2010	178
2011	425
2012	672
2013	441
2014	448
2015	448
2016	450
2017	652

#### Table 9-1: Umpire Samples by Year

Source: Kaminak 2017

\* - Umpire samples currently undergoing analysis. Results pending in 2017 EOY QAQC Report.

#### 9.1.3 Specific Gravity Data

Specific gravity measurements were made using the water immersion method. In 2011, measurements were made at nominal 10 m intervals in non-mineralized rock and at nominal 5 m intervals in structural zones or apparent gold mineralized rock. From 2012 to 2017, measurements were selected at a rate of one sample per mineralized zone, and one sample per major lithology in non-mineralized rock. In areas of multiple mineralized zones separated by non-mineralized intervals less than 10 m wide, specific gravity was measured for the mineralized zones only.

Samples were weighed dry in air, coated with paraffin wax and weighed immersed in water. A standard was measured roughly every ten samples in order to measure instrumental drift. Results were recorded directly into a Microsoft Excel spreadsheet. A total of 8,004 specific gravity (SG) measurements have been collected since 2010 to end of 2017.

Specific gravity measurements less than 2.40 or greater than 3.50 were re-weighed by technicians to ensure accuracy. Independent specific gravity testing was also conducted on a randomly selected batch of 35 samples in 2011, 30 samples in 2012, 26 samples in 2013, 37 samples in 2015, and 40 samples in 2017, by ALS Minerals in North Vancouver, BC in order to verify the accuracy of the on-site methodology. ALS Minerals results are in close agreement with field measurements, and therefore, indicate good reproducibility.

### 9.1.4 Quality Assurance and Quality Control Programs

The exploration work conducted by Kaminak was carried out using a quality assurance and quality control (QA/QC) program meeting industry best practices for exploration properties. Standardized procedures were used in all aspects of the exploration data acquisition and management including mapping, surveying, drilling, sampling, sample security, assaying, and database management.

During 2009, Kaminak did not implement specific analytical quality control measures to monitor the assay results delivered by Acme. The 2009 exploration program involved primarily soil sampling and trenching. Kaminak relied on the laboratory internal analytical quality control measures to monitor the reliability of assay results delivered by Acme.

At the commencement of core drilling in 2010, Kaminak began implementing external analytical quality control measures, in addition to choosing an ISO accredited primary laboratory. The analytical quality control measures involved the use of control samples (certified reference material, blanks, field duplicates) and independent check assaying at an umpire laboratory.

Certified reference materials were sourced from CDN Resource Laboratories Ltd. (CDN) of Langley, BC. Typically six unique standards and one blank were used in each sampling program completed. In 2017, Kaminak used eight standards, with certified assay values ranging from 0.694 g/t to 9.31 g/t gold, and one blank with a certified assay value of less than 0.01 g/t gold (Table 9-2). For 2010 rock samples, certified reference materials were inserted approximately at a rate of one every 30 samples. For 2011 - 2017 drill core and reverse circulation samples, and for 2011, 2013, 2014, 2016, and 2017 trench samples, blanks and certified reference materials were alternated and inserted at a rate of one every ten samples.

Field and laboratory duplicates were also inserted within the samples submitted for assaying. Field duplicate samples were collected by splitting the remaining half-core in half reverse circulation sample duplicates were collected by running the retention bag of the original sample through the riffle splitter, splitting a second sample from the original sample directly at the drill site. Laboratory duplicates are repeat assays on pulverized samples originally assayed by ALS Minerals.

In 2013, additional laboratory duplicates of cyanide shake test samples were taken at a rate of 1:50 total analyzed samples.

Reference Material	Gold (g/t)	Standard Deviation (g/t)	Number of Samples
CDN-BL-10	<0.01	-	2764
CDN-GS-1M	1.07	0.043	157
CDN-GS-1T	1.08	0.055	392
CDN-GS-3P	3.06	0.118	550
CDN-GS-6D	6.09	0.202	425
CDN-GS-6E	6.06	0.230	131
CDN-GS-P7K	0.694	0.045	156
CDN-GS-P7L	0.709	0.058	398
CDN-GS-9B	9.02	0.457	553

#### Table 9-2: Specifications of the Certified Control Samples Used by Kaminak in 2017

Source: Kaminak 2017

### 9.1.5 Comments

The various independent Qualified Persons engaged at Coffee over 2009-2017 reviewed the field procedures and analytical quality control measures used by Kaminak. In the opinion of these Qualified Persons, Kaminak personnel used care in the collection and management of field and assaying exploration data, and the sample preparation, security, and analytical procedures used by Kaminak are consistent with generally accepted industry best practices and are, therefore, adequate for the purpose of mineral resource estimation.

# **10 Data Verification**

## 10.1 Verification by Kaminak/Goldcorp

The exploration work carried out on the Coffee Gold Project was conducted by Kaminak/Goldcorp personnel and qualified subcontractors. Kaminak implemented a series of routine verifications to ensure the collection of reliable exploration data. All work was conducted by appropriately qualified personnel under the supervision of qualified (P.Geo.) geologists.

With respect to the most recently published technical report as required under NI 43-101, in the opinion of Mr. Robert Sim, P.Geo., of SIM Geological, (APEGBC#24076), the field exploration procedures used at Coffee consistently met industry practices.

The quality assurance and quality control program implemented by Kaminak/Goldcorp was comprehensive and supervised by qualified personnel. Exploration data were recorded digitally to minimize data entry errors. Core logging, surveying, and sampling were monitored by qualified geologists and verified routinely for consistency. Electronic data were captured and managed using an internally-managed Microsoft Access database, and backed up daily. Data from 2010 were managed by Maxwell Geoservices Inc. (Maxwell), and later in 2010 were managed by Kaminak personnel using Maxwell data management applications. In early 2011, the 2010 data were migrated to an internally-managed and internally-designed Microsoft Access database.

Assay results were delivered by the primary laboratory electronically to Kaminak/Goldcorp and were examined for consistency and completeness. Kaminak/Goldcorp personnel reviewed assay results for analytical quality control samples using bias charts to monitor reliability and detect potential assaying problems. Batches under review for potential failures were recorded in a quality control spreadsheet, investigated and corrective measures were taken when required.

The failure threshold for control samples was set at two times the standard deviation, based on recommended values provided by CDN Resource Laboratories Ltd. Quality control samples exceeding that threshold were investigated. Batches of barren samples containing a quality control failure were not re-assayed. Batches of samples containing more than one quality control failures were re-assayed completely. In batches containing one control sample failure, samples surrounding the failed control sample were re-assayed. After review, Kaminak/Goldcorp requested either partial or complete batches of samples be re-assayed by ALS Minerals (Table 10-1). Once it was confirmed that the re-assayed batches passed the quality control failure thresholds, they were accepted and the assay database was updated accordingly.

Year	Number of Sample Batches Partially or Wholly Re-assayed
2010	44
2011	28
2012	31
2013	19
2014	21
2015	21
2016	25
2017	45

#### Table 10-1: Count of Batch Re-runs by Year

Source: Kaminak 2016

## 10.2 Verifications by the Authors of this Technical Report

#### 10.2.1 Site Visits

The Qualified Persons responsible for the Exploration Technical Report (Tim R. Smith, P.Geo & Erik Scheel, P.Geo.) both visited site to oversee the 2017 exploration and infill drilling programs.

Site visits conducted by the Qualified Person responsible for the Mineral Resource estimates completed in September 2015, January 2014 and November 2012 are detailed below:

In accordance with National Instrument 43-101 (NI 43-101) guidelines, the Qualified Person visited the property on several occasions during active drilling. Robert Sim, P. Geo. (APEGBC#24076) visited the property on four separate occasions; September 12-14, 2011, August 28-29, 2012, May 15-16, 2013 and September 24, 2014. Each visit was similar in process and Mr. Sim was given unfettered access to all aspects of the project and all questions were satisfactorily addressed.

Exploration activities were reviewed with site personnel and the nature of the ongoing interpretation of the geologic environment was discussed with Kaminak geologists. Drill core handling and sampling procedures were reviewed and inspected. Mr. Sim visited a series of drill sites and inspected ongoing diamond drilling and reverse circulation drilling activities. Recent trenches, opened during the summer of 2014, were visited and the nature of the mineralized zones was observed.

During the 2011 site visit, Mr. Sim randomly selected three representative samples from previously sawed drill core intervals. These samples were collected by Mr. Sim, transported to Vancouver and submitted to ALS Minerals laboratory for analysis. The resulting gold grades were similar to those present in Kaminak's sample database. It is Mr. Sim's opinion that Kaminak operates the Coffee Gold Project in a very organized and disciplined manner that follows accepted industry standards.

## 10.2.2 Verification of Analytical Quality Control Data

Kaminak/Goldcorp completes an End of Year QAQC report, which compiles analytical quality control data produced following each field season. This report, and all supporting data, are provided to Messrs. Rob Sim and Bruce Davis of SIM Geological Inc. for external analysis and confirmation.

The analysis of analytical quality control data produced by Kaminak prior to 2016 was discussed in previous technical reports (Couture and Siddorn, 2011, Couture and Chartier, 2012, Couture et al., 2013, Makarenko et al., 2014; Doerksen et al., 2016) and is not reproduced here.

Kaminak personnel aggregated the assay results for the external quality control samples for further analysis. Sample blanks and certified reference materials data were summarized on time series plots to highlight the performance of the control samples.

The analytical quality control data produced by Kaminak/Goldcorp in 2017 are summarized in Table 10-2. The external quality control data produced on this Project represents 14.42% of the total number of samples submitted for assaying in 2017. Performance of certified reference materials analyzed by ALS Minerals is provided in Figure 10.1 and Figure 10.2.

	Reverse Circulation Samples	(%)	Core Samples	(%)	Trench Samples	(%)	Total	(%)	Comment
Sample Count	33,178	68	15,624	32	37		48,839		
BL-10	1879	42.59	885	42.1	1		2765	42.4	<0.01 g/t Au
GS-1M	156		1				157		
GS-1T	219		173				392		
GS-3P	374		176				550		
GS-6D	280		145		1		426		
GS-6E	97		34				131		
GS-9B	375		178				553		
GS-P7K	155		1		1		157		
GS-P7L	220		178				398		
Field Duplicates	657	66	330	37	4		991		
Total QC Samples	4412	68	2101	32	3		6516		
Check Assays									
Acme Labs (FA + CN)	309	61.8	191	38.2	0	0	500		Umpire Lab Testing

Table 10-2: Summary of Analytical Quality Control Data Produced by Kaminak/Goldcorp in 2017



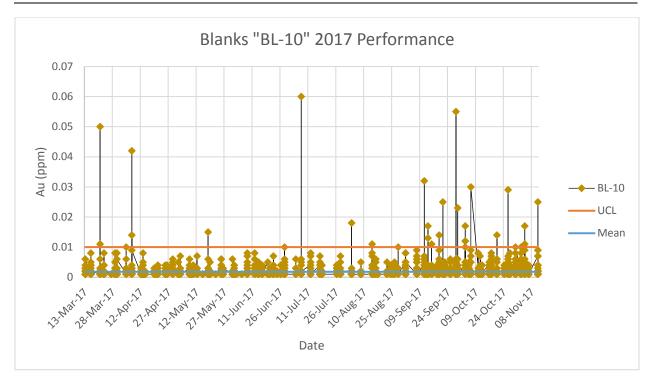


Figure 10.1: Performance of certified blank material analyzed by ALS during the 2017 field season.



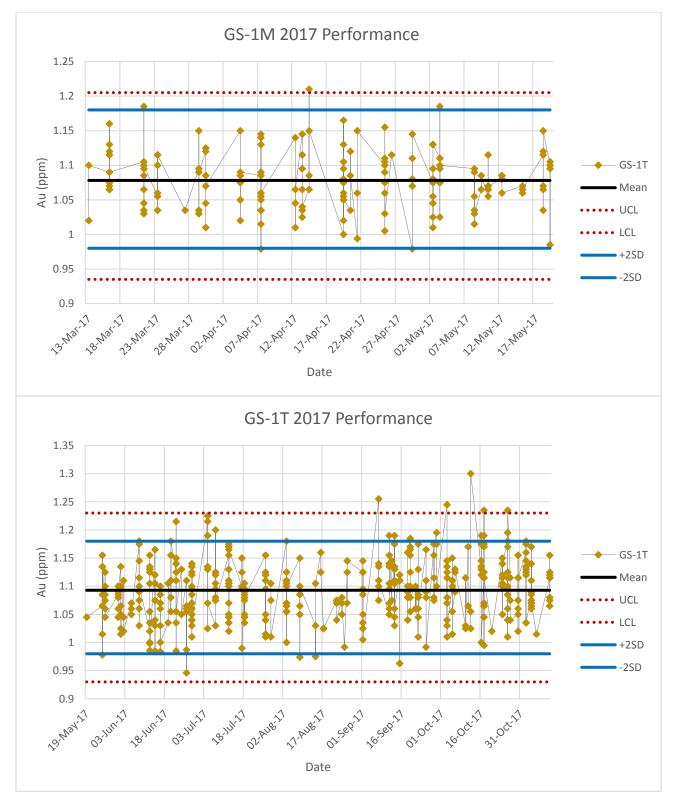


Figure 10.2: Continued: Performance of certified reference material analyzed by ALS during the 2017 field season.





Figure 12.2: Continued: Performance of certified reference material analyzed by ALS during the 2017 field season.

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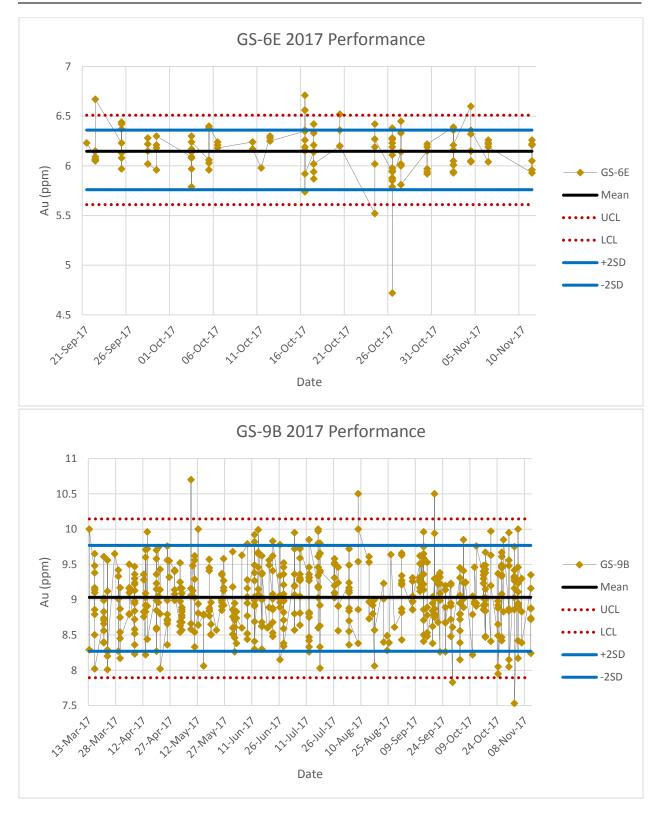


Figure 12.2: Continued: Performance of certified reference material analyzed by ALS during the 2017 field season.



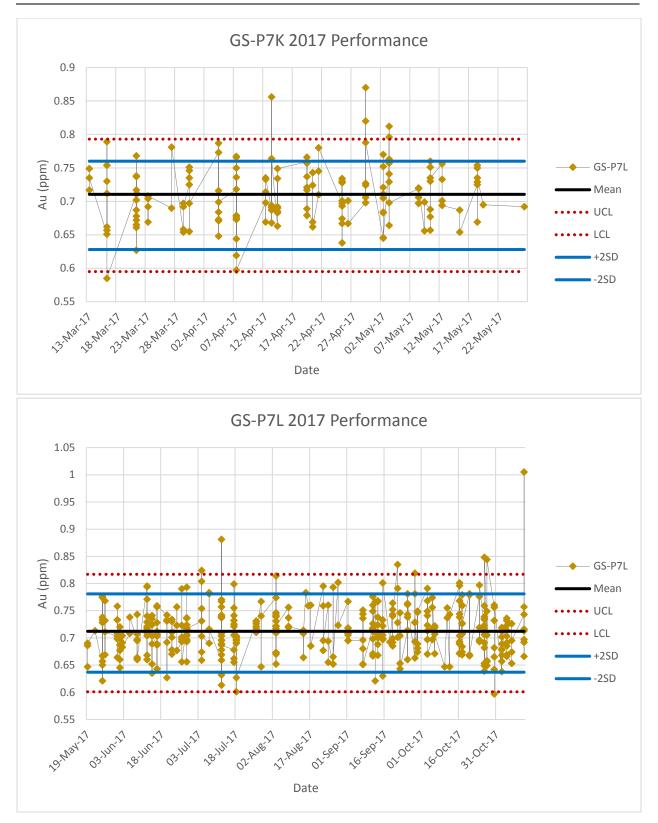


Figure 12.2: Continued: Performance of certified reference material analyzed by ALS during the 2017 field season.

#### **10.2.3 Database Verification**

Mr. R. Sim conducted a program of data verification prior to the completion of the most recent Coffee resource estimation (September, 2017), as detailed herein:

Following the completion of the mineral resource models, the sample data from 27 randomly selected drill holes, representing approximately 5% of the data, was exported from the MineSight® for validation purposes. This includes holes completed during each of the drilling programs conducted at Coffee since 2011. The gold grades were manually compared to the values listed in certified assay certificates provided from the lab. Of the 4,634 samples checked, no errors were identified. Similar validation studies were conducted for the previous resource estimates in January 2014 and November 2012 with similar results. These results indicate that the database is sound and sufficient to support the estimation of mineral resources.

# **11 Mineral Processing and Metallurgical Testing**

See Doerksen et al., 2016 for results of metallurgical testing in support of the Coffee Feasibility Study.

# **12 Mineral Resource Estimate**

See Doerksen et al, 2016 for the most recent published Mineral Resource.

## **13 Interpretations and Conclusions**

The exploration programs completed at Coffee during 2017 were largely successful and most targets tested warrant additional work over the course of the 2018 program.

Highlights include the new discoveries of mod-high grade mineralization at Decaf and AmeriKona, and low grade mineralization over broad strike length at Kazaar. The Supremo Advanced Targets (T8-9, Arabica and Supremiato) produced maiden Inferred resource estimates.

Standard industry practices, equipment and processes were used in this study. The authors of this report are not aware of any unusual or significant risks, or uncertainties that could affect the reliability or confidence in the Project based on the data and information made available.

## 14 Recommendations

## Recommendations

The exploration programs completed during 2017 warrant additional ongoing exploration. Specifically, the following recommendations are made.

## 14.1 Indicated and Measured Resources

Close-spaced drilling	Supremo T3 and T5, to increase the statistical population of the 2017 drill spacing study.
Mine-plan open pit reserves	Supremo, Double Double, Kona: upgrade reserves from indicated to measured.

## 14.2 Inferred Resources

- Supremo Pit Cutback Complete infill drilling of inferred resources for scoping study of further pit optimization.
- Supremo T8-9 Targeted drilling of high grade zones with aim to achieve increase in open pit resource grade; upgrade to indicated (and subsequent reserve conversion)
- Supremiato Targeted drilling of high grade zones with aim to achieve increase in open pit resource grade; upgrade to indicated (and subsequent reserve conversion)
- Arabica Targeted drilling of high grade zones with aim to achieve increase in open pit resource grade; upgrade to indicated (and subsequent reserve conversion)
- Kona North Complete resource modelling and upgrade some resources to indicated (and subsequent reserve conversion), and step-out drilling to link with AmeriKona.

Sumatra: Reassess potential to drill to Indicated, lower priority

## 14.3 Advanced Targets

- Amerikona Complete infill to estimate maiden inferred resources, step-out drilling to extend mineralization
- Decaf Complete infill to estimate maiden inferred resources, step-out drilling to extend mineralization

### 14.4 Follow-up Targets

- Supremo T3 Deep Oxide Complete 2017 program of systematic testing of downdip/plunge T3 for potential UG –grade oxide mineralization. Undertake UG mining scoping study to define target grade/continuity.
- Latte UG Sulphide Complete 2017 program of systematic testing of down-dip/plunge Latte for potential UG –grade sulphide mineralization. Undertake UG mining scoping study to define target grade/continuity.
- Americano Test for oxide mineralization (e.g. up-dip on existing sulphide intercepts)
- Kazaar Infill on 2017 results and exploration step-out to extend mineralization.
- Konnexion Follow-up and step-out drilling to extend mineralization.
- Dolce Follow-up and step-out drilling to extend mineralization
- Macchiato Follow-up and step-out drilling to extend mineralization

#### 14.5 Identified Targets

Americano West	First pass trenching or drill test
French Press	First pass trenching or drill test
Mocha	First pass trenching or drill test
Cappuccino	First pass trenching or drill test
Sugar	First pass trenching or drill test
Leo Lion	Mapping (granitoid contact, alteration, veining) & sampling

#### 16.3.6 Generative Targets

Extend and infill on soil sample grid. Also assess efficacy of existing exploration e.g. screen out existing soil sampling over thick overburden as being a false negative, and identify effective exploration methodology to complete effective exploration. Undertake a regional detailed stream sediment survey.

Review and test alternative geochem exploration methods such as geoprobe/auger or RAB drilling in areas of thick overburden cover.

Undertake a property wide conceptual prospectivity analysis and targeting.

## 14.6 Recommended Budget

In September 2017 a Coffee 2018 Exploration Budget was proposed as follows in Table 14-1 in order to complete the recommended work programs set out in Section 14.

 Table 14-1: 2018 Exploration Budget

Target	US \$	CAD \$	Recommended programs (from Section 16.2)
Growth in Resources/Reserves	\$6,200,000	\$8,060,000	16.3.1 & 16.3.3
Test & Generate New Targets	\$4,300,000	\$5,600,000	16.3.4 to 16.3.6
Contingency	\$900,000	\$1,170,000	Unallocated contingency
Total	\$11,400,000	\$14,830,000	

## **15 Statement of Expenditures**

Total Experiorules between A	hu o	anu Oct 16, 20
Expenditure	Tot	al
Salaries and Wages	\$	2,701,081
Assaying	\$	982,000
Helicopter	\$	2,567,353
Drilling	\$	6,525,000
Diesel	\$	655,000
Support Material	\$	75,041
Camp Costs	\$	345,000
Telecommunications	\$	35,974
Computer Service	\$	4,500
Equipment Rentals	\$	7,200
Operation Equipment Rental	\$	266,365
Software Maintenance	\$	2,800
Total	\$	14,167,315

#### Total Expenditures between April 8 and Oct 18, 2017

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# 17 Units of Measure, Abbreviations and Acronyms

actual cubic feet per minute ampere annum (year) bed volumes per hour billion billion tonnes billion tonnes billion sof years British thermal unit centimetre centipoise cubic centimetre cubic feet per minute cubic feet per second cubic feet per second cubic inch cubic inch cubic metres per hour cubic metres per second day days per week days per week days per year (annum) dead weight tonnes decibel	Acfm A a BV/h B bya Ga BTU cm cP cm <sup>3</sup> cfm ft <sup>3</sup> /s ft <sup>3</sup> in <sup>3</sup> m <sup>3</sup> /h m <sup>3</sup> /s d d/wk d/a DWT dBa dB
degree degrees Celsius diameter dollar (American) dollar (Canadian) dry metric tonne foot gallon (US) gallons per minute (US) Gigajoule Gigapascal Gigawatt gram grams per litre grams per litre grams per tonne hectare (10,000 m <sup>2</sup> ) hertz horsepower hour hours per day	° <sup>°</sup> C ø US\$ dmt ft gpm GJ GPa GV g g/L ha Hz hp h/d

Effective Date: June 14, 2018

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hours per week	h/wk
hours per year	h/a
hydraulic conductivity	K
inch	in
kilo (thousand)	k
kilogram	kg
kilograms per cubic metre	kg/m³
kilograms per hour	kg/h
kilograms per square metre	kg/m <sup>2</sup>
kilometre	km
kilometres per hour	km/h
kilopascal	kPa
kilotonne	kt
kilovolt	kV
kilovolt-ampere	kVA
kilowatt	kW
kilowatt hour	kWh
kilowatt hours per tonne	kWh/t
kilowatt hours per year	kWh/a
litre	L
litres per minute	L/min
litres per second	L/s
megabytes per second	Mb/s
megapascal	MPa
megavolt-ampere	MVA
megawatt	MW
metre	m
metres above mean sea level	mamsl
metres below surface	mbs
metres below sea level	mbsl
metres per minute	m/min
metres per second	m/s
microns	μm
milligram	mg
milligrams per litre	mg/L
millilitrem	L
millimetre	mm
million	М
million bank cubic metres	Mbm <sup>3</sup>
million bank cubic metres per annum	Mbm³/a
million tonnes	Mt
minute (plane angle)	1
minute (time)	min
month	mo
Normal cubic metres per hour	Nm³/h
parts per billion	ppb
parts per million	ppm
pascal	Pa
pounds per square inch	psi
	•

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revolutions per minute second (plane angle)	rpm "
second (time)	S
specific gravity	SG
square centimetre	cm <sup>2</sup>
square foot	ft <sup>2</sup>
square inch	in <sup>2</sup>
square kilometre	km <sup>2</sup>
square metre	m <sup>2</sup>
standard cubic feet per minute	Scfm
tonne (1,000 kg) (metric ton)	t
tonnes per day	t/d
tonnes per hour	t/h
tonnes per year	t/a
tonnes seconds per hour metre cubed	ts/hm <sup>3</sup>
Troy ounce	OZ
volt	V
week	wk
weight/weight	w/w
wet metric tonne	wmt

## 17.1 Abbreviations and Acronyms

abrasion index		Ai
acid rock drainage		ARD
atomic absorption spectroscopy		AAS
Bench Face Angle		BFA
Bond Ball Mill work index		BMWi
Canadian Institute of Mining, Metallurgy and Petroleum		CIM
capital cost allowance		CCA
capital expenditure		CAPEX
carbon dioxide		CO <sub>2</sub>
carbon-in-leach		CIL
carbon-in-pulp		CIP
carbon monoxide		CO
Certified Reference Material		CRM
Coefficient of Variation		CV
opper sulphate	CuSO <sub>4</sub>	
crushing work index		CWi
cumulative net cash flow		CNCF
cut-off grade		COG
dead weight tonnage		DWT
drift and fill		DF
electrowinning		EW
engineering, procurement, and construction management		EPCM
fresh air raise		FAR
field electrical centre		FEC
Footwall		FW
Geological Strength Index		GSI
Global Positioning System		GPS

Effective Date: June 14, 2018

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	•
gold	Au
hanging wall	HW
hydrated lime	Ca(OH) <sub>2</sub>
internal rate of return	IRR
International Standards Organization	ISO
internet protocol	IP
inter-ramp angle	IRA
Lerchs-Grossman	LG
life of mine	LOM
local area network	LAN
metal leaching	ML
Metal Mining Effluent Regulations	MMER
Mine Closure and Reclamation Plan	MCRP
net cash flow	NCF
net present value	NPV
net smelter return	NSR
neutralization potential/acid production	NP/AP
non-potentially acid generating	NPAG
overburden	OVB
oversize	O/S
post pillar cut-and-fill	PPCF
potentially acid generating	PAG
Prefeasibility Study	PFS
Preliminary Economic Assessment	PEA
Qualified Person	QP
quality assurance/quality control	QA/QC
Rock Mass Rating (1989 version)	RMR89
Rock Quality Designation	RQD
semi-autogenous grinding	SAG
sodium cyanide	NaCN
sodium hydroxide	NaOH
sodium metabisulphite	SMBS
specific gravity	SG
sulphur dioxide	$SO_2$
Tailings Storage Facility	TSF
three-dimensional	3D
total dissolved solids	TDS
total suspended solids	TSS
two dimensional	2D
unconfined compressive strength	UCS
uninterruptible power supply	UPS
variable frequency drive	VFD
Voice over Internet Protocol	VolP
Volcanic-turbidite series	VTS
waste rock storage area	WRSA
wide-area network	WAN
weak acid dissoluble	WAD
weak acid dissoluble cyanide	
work breakdown structure	WBS



Workers Compensation Board

WCB



#### QUARTZ MINING ACT FORM 4 SECTION 56 APPLICATION FOR A CERTIFICATE OF WORK

Office Date Stamp

I TOM BOKENFOH	
	•
	Γ.

of Kaminak Gold Corp, Suite 3400-666 Burrard St. Vancouver, BC V6C 2X8

Phone 604-695-7114 or 778-918-5089

Client I.D. Number: <u>2522725</u> make oath and say that:

- 1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
- 2. I have done, or caused to be done, work, on the following mineral claim(s): (Here list claims on which work was actually done by number and name)

YC83659, YC83661, YC83668, YC83669, YC83670, YC83671

YC53957, YC53958, YC54453, YC54454, YC54455, YC54456, YC54457, YC54458, YC54459, YC54460

situated at Coffee Property

\_\_\_\_\_ Claim sheet No. <u>115J14</u>

in the	WHITEHORSE	Mining District, to the value of at least	\$ 1,000,000	dollars,
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since the	10th	day of	June	20 17
		-		

to represent the following mineral claims under the authority of Grouping Certificate No. <u>HW07629</u> (Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

Renew 108 claims for 4 Years.

YF01901 to YF02008

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 56).

Drill program conducted between April 8, 2017 - October 18, 2017 (189 holes, 25,000 m).

	12th min Decamber	
Swarn before me at Vancouver	this 10 day of 2000	20[
1 http	1- Alm	
Notary Public	Owner or Authorized Ager	nt
Access to Information and Protection of Privacy Act	d up doe the surface in a fair d up of fair the surfaces of a desinistance the Quarter l	

The personal information requested on this form is collected under the authority of and used for the purpose of administering the Quartz Mining Act. Questions about the collection and use of this information can be directed to the Mining Recorders Office, Mineral Resources, Department of Energy, Mines and Resources, Yukon Government, Box 2703, Whitehorse, Yukon Territory, Y1A 2C6 (867) 667-3190 YG(5049Q)F2 Rev. 04/2012