

**Higher Ground Exploration Services**

## **Placer Assessment Report**

### **Aerial Drone Survey**

**Judas Creek Area, Southwest Yukon**

NTS Map sheets 105D 08 & 105C 05

Location: Latitude of 60°24' N, and Longitude 134°00' W

Mining District: Whitehorse

Yukon Territory



By Tanja & Nicolai Goepfel on Behalf of 536005 Yukon Inc.

February 17, 2021

Aerial drone survey conducted from August 4-6, 2020 on the following placer claims:

REBOUND 1-13

JGOLD, JGOLD 1-13, 15-21, 39-43 & 64-78

EXCELSIOR 2-4

NIKI 1-7

## **Abstract**

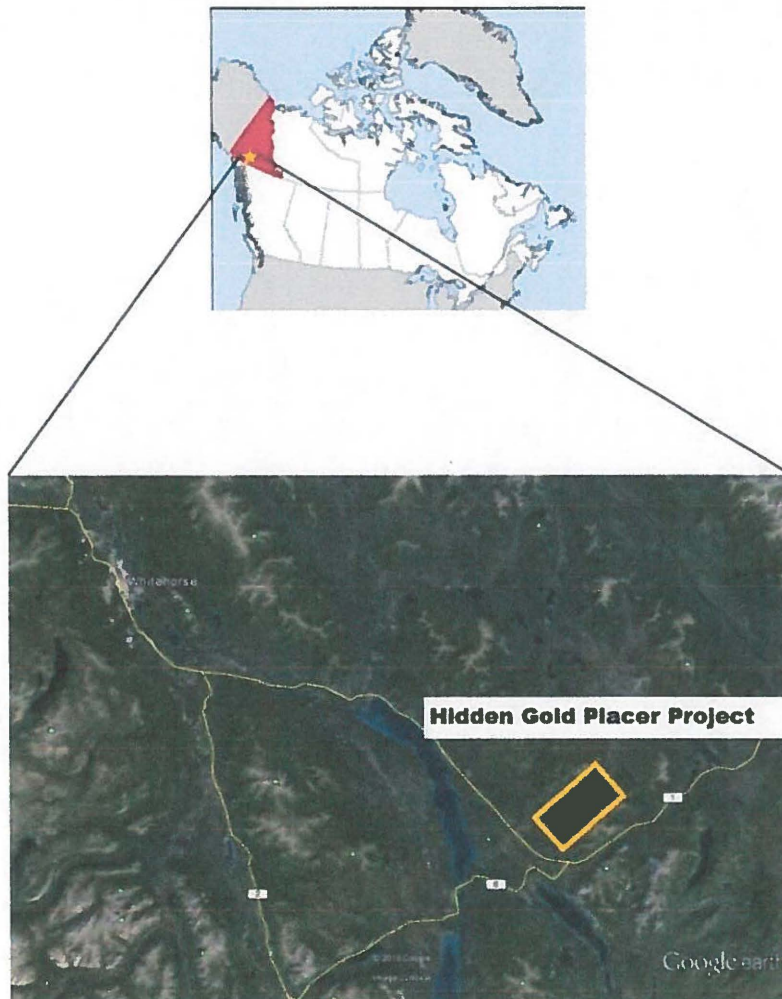
In August 2020 an aerial drone survey was carried out on three different areas on the Placer Claims in the Judas Creek area held by 536005 Yukon Inc. The aerial drone survey covered a total of 5.76 square kilometers. The first survey location covered an area of 4263583.07m<sup>2</sup> located on Judas Creek. The second survey location covered an area of 185459.87m<sup>2</sup> located on a tributary of Judas Creek, the Excelsior claims. The third survey area was conducted on another unnamed tributary of Judas Creek that covered 1310029.52m<sup>2</sup>. The total costs for the survey was \$23,036.29

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## Location and Access

The Hidden Gold Placer Property is made up of 2095.93 hectares of placer claims. The area covers a total of 6 drainages consisting of Judas Creek and 5 of its tributaries (Figure 1). The Hidden Gold Project is located in southwest Yukon, approximately 65 linear kilometers south of the capital city of the Yukon, Whitehorse. The property is road accessible; driving takes approximately 50 minutes and includes 74 kilometers south on the Alaska highway to the property turn off and another 3.6 kilometers along an unnamed dirt road. The property is located in the Whitehorse Mining District in NTS map sheet 105D 08 and 105C 05. Claims are centered on Latitude of 60°24' N, and Longitude 134°00' W.



## Introduction

Gold was first discovered in the area in 1911 by Benjamin Miller, the news of his discovery spurred a staking rush to the area a month later. Judas Creek received its name in 1911 following the stampede; several stamperders originally wanted to name the creek "All In" creek based on their exhausted state when reaching the creek but named it Judas creek when they found little gold. Old workings observed in the field indicate a bedrock bench and reef were numerous old-aged hand dug pits and trenches were dug. In the valley bottom some shafts were attempted but stopped due to thawed and wet conditions. Into the 1930's and 40's several rumours developed of individuals working and finding coarse gold in the area. These anecdotes from the 1930's-1940's is not substantiated in written records.

The Hidden Gold Placer Property (HGP) is made up of 2095.93 hectares of placer claims. The area covers a total of 6 drainages consisting of Judas Creek and 5 of its tributaries. The area is a new placer field with no history of mining or mechanical work except for recent work carried out by the current owner (536005 Yukon Inc.) and minor hand work carried out in 1911.

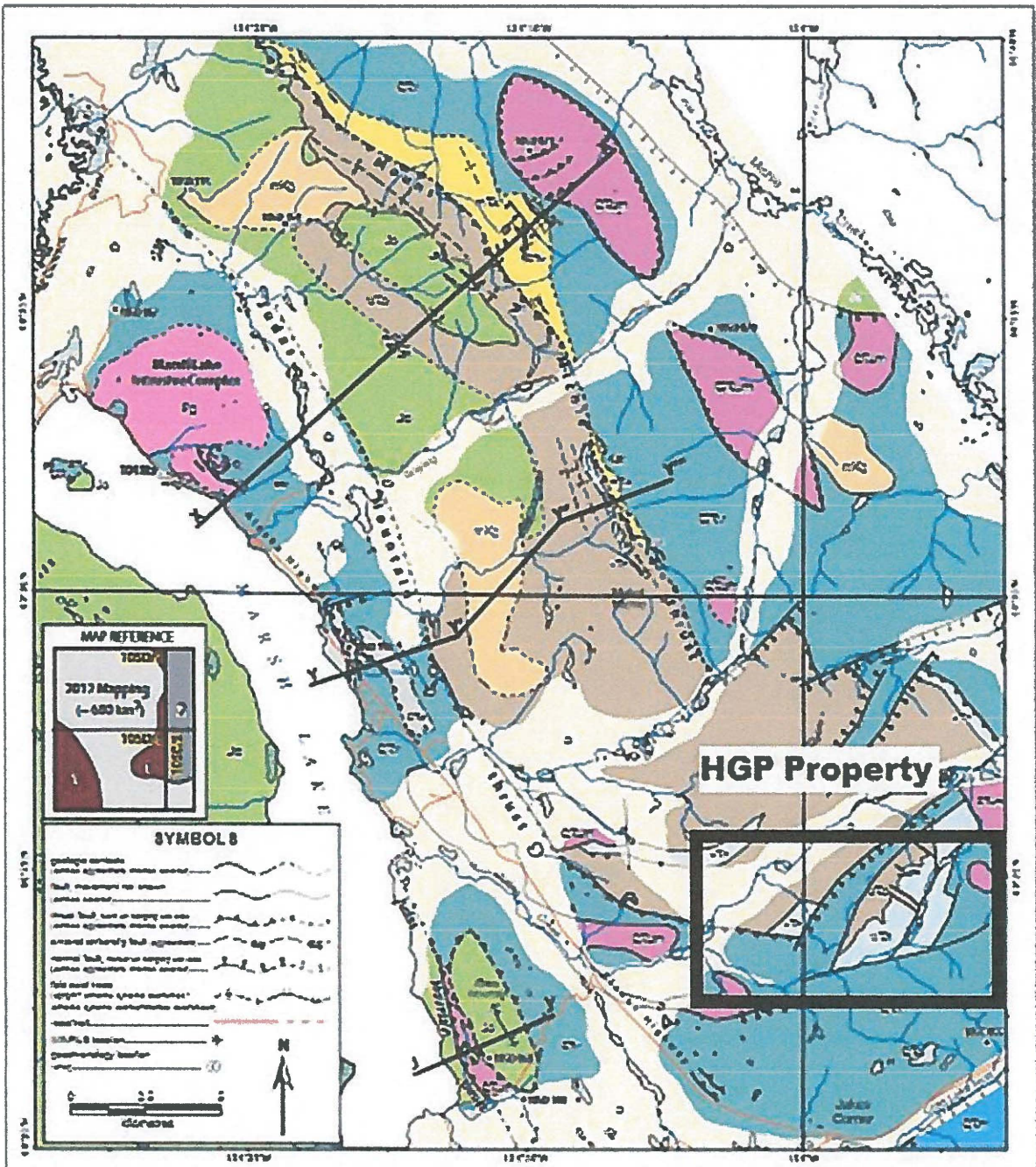
The area was essentially rediscovered by the co-founder of 536005 Yukon Inc. (the company), Nicolai Goepfel, in 2011 while prospecting the area for lode gold and platinum group elements (PGE). On unofficially named Faith creek the primary tributary to Judas Creek, a boulder terrace truncated by tertiary semi-consolidated Tertiary conglomerate and serpentinite bedrock was observed and gravels were tested by panning. The initial tests yielded abundant "black sands" primarily magnetite and a 4.5 mg flake of gold. Promptly after a 1-mile prospecting lease was staked. Further hand testing on the discovery site yielded 2.5 grams from half a cubic yard (0.38 m<sup>3</sup>). Continued hand testing indicated the presence of gold in the gravels on 5 other drainages. The company then continued with mechanical test pitting on Judas Creek, Faith Creek and the unofficially named Hope Creek. Testing indicated primarily thawed ground with overburden to top gravels ranged between 0.75m and 2m. Top gravel on faith creek yielded as high as 100 mg from 0.1 yrd<sup>3</sup> (0.076m<sup>3</sup>).

Based on significant surface results and cost-effective mining conditions; in 2013 a 700ft auger drill program was carried out on Faith and Judas creeks to determine bedrock depth and potential grade. Auger drilling is best in permafrost were the frozen subsurface acts as a casing; whereas, thawed ground affects sample recovery. Despite this gold was observed in all holes. Drilling also indicated stronger glacial effects in Judas Creek and lesser extent on Faith Creek. On both drainages an abrupt change in bedrock depth occurs between 2600 and 2700ft (792.48 – 822.96 m) elevation, with bedrock becoming 20 ft or more shallower upstream. In fall of 2018 a small-scale bulk sampling program was carried out on Faith creek on the discovery bench. A small test trommel was used to process 100 yrd<sup>3</sup> (76 m<sup>3</sup>) and produced 2.95 oz (83.72 g), including nuggets up to 3.57 g. Recovery was less than ideal due to the out-dated condition of the wash plant and took many modifications to bring up recovery, a single 5-gallon bucket of tailings produced nearly one gram of gold. The 2019 placer exploration program on Hidden Gold Placer property resulted in the excavation of 14 hand-dug test pits, 14 mechanically excavated test pits, an 18.42 line-kilometer magnetometer survey and 24 seismic points that identified areas for further testing. In 2020 several locations on Hope Creek were surveyed using seismograph. Nine mechanically excavated test pits were dug on Hope creek and two on Faith Creek. Positive results were further tested through bulk sampling with 25 yrd<sup>3</sup>/hr trommel.

A viable placer potential exists approximately 45 minutes south of Whitehorse, Yukon. Testing indicates areas of near surface payable gravels with feasible bedrock depths and no permafrost. This report summarizes the 2020 aerial drone survey on the Judas Creek area Placer claims.

## **Regional Geology**

The HGP property is underlain by Carboniferous to Jurassic Cache Creek Group rocks. The Cache Creek Group consists of an accretionary complex made up of a mixture of oceanic and arc volcanic rocks, pelagic sedimentary rocks, ultramafic bodies, and exotic limestone containing Early Permian Tethyan fauna (e.g., Monger and Ross, 1971; Paterson and Harakal, 1974; Gabrielse, 1991; Struik et al., 2001; Orchard et al., 2001). The HGP property is underlain by oceanic shale, siltstone chert, carbonates and ultramafic rocks (Figure 3). These are overlain by Upper Triassic rocks of the Aksala Group northwest. The Aksala Group consists of mixed clastic and carbonate rocks that are divisible into three dominant facies: calcareous greywacke; thick carbonate; and red-coloured clastics (Casselmann, 2004). The structural geology of the area is dominated by two major sub-parallel, north-northwest trending faults that divide and define the boundaries between the Cache Creek Terrane and the Whitehorse Trough and between the Whitehorse Trough and the Yukon-Tanana Terrane. The Nahlin Fault more or less marks the western extent of the Cache Creek Terrane and eastern extent of the Whitehorse Trough. It is a steeply dipping to vertical fault, or series of faults and has seen intermittent activity from the Late Triassic to Tertiary time. The Llewellyn fault marks the boundary between the regionally metamorphosed Yukon-Tanana Terrane and the Whitehorse Trough. It is also steeply dipping and appears to have been active from Late Triassic to Tertiary time. The nearest known intrusive rocks on the property are Early Cretaceous intrusions of the Teslin Suite. They are comprised of leucocratic, fine to coarse-grained, equigranular, hornblende-biotite granite, granodiorite, quartz monzonite and quartz monzodiorite (Casselmann, 2004).



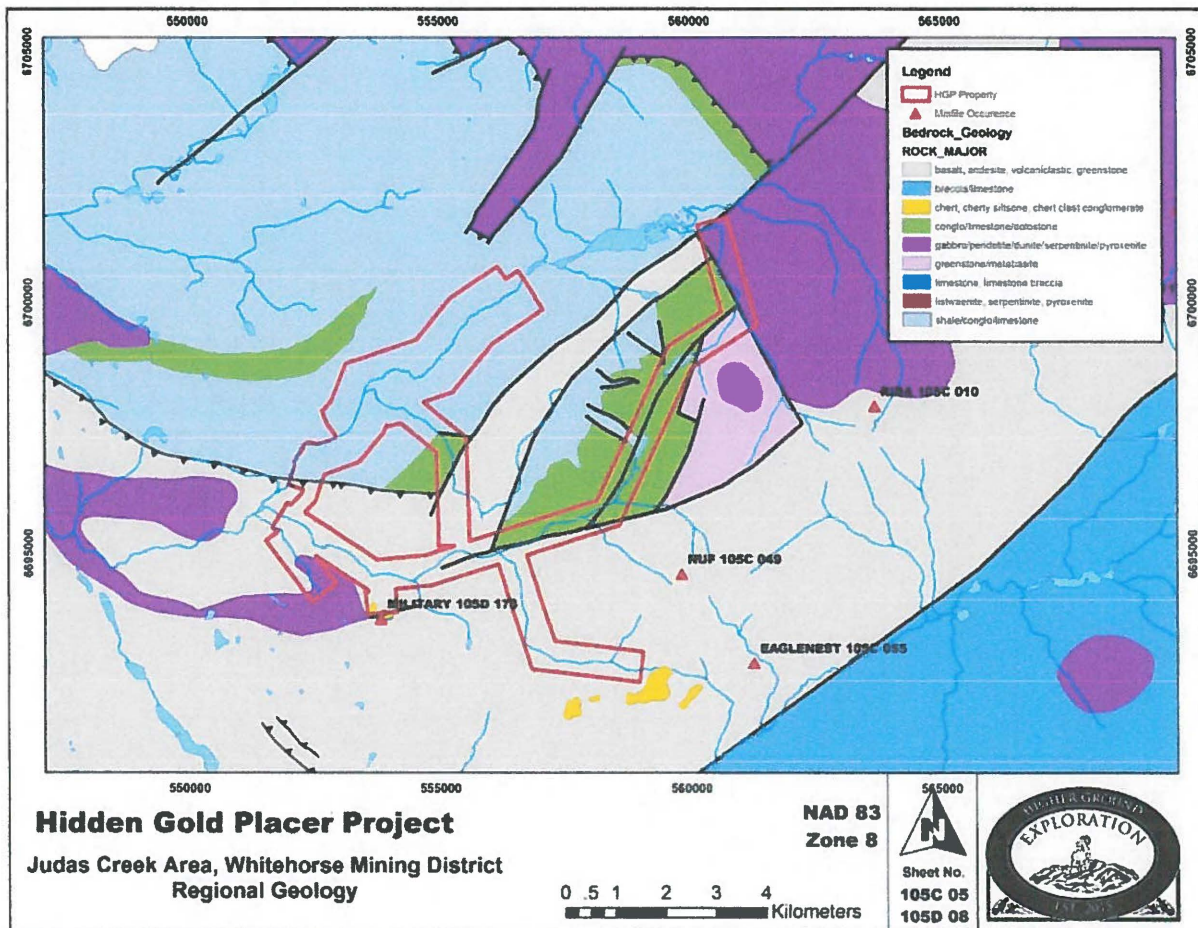
**LEGEND**

<p><b>Quaternary cover</b></p> <p><b>Intrusive rocks</b></p> <p>Qc Ic Gc</p>	<p><b>Layered rocks</b></p> <p>Wichase trough (Laberge Group)</p> <p>Richelieu formation</p> <p>Selkirk &amp; Lewis River Group</p> <p>Alaska formation (Casta member)</p> <p>Alaska formation (Barcroft member)</p>	<p><b>Catch Creek terrane</b></p> <p>McIntosh formation</p> <p>Emmema</p> <p>Chert</p> <p>volcanic rocks</p> <p>gabbro/pyroxenite</p> <p>ultramafic rocks</p>
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## Local Geology

The geology of the region was mapped in detail by W. Taylor and D. Shaw in 1989 (Shaw, 1989). Their mapping identified four lithological categories: volcanic, tuff; cherts; chloritic mafic lenses of gabbro, pyroxenite and diorite; and ultramafics. As well, they identified two alteration assemblages; carbonatization and silicification; and chrome-mica carbonatization of ultramafic rocks. The property is underlain by a northwest trending package of submarine volcanics consisting of moderately chloritized, fine-grained volcanic flows and tuff & that are metamorphosed to greenschist facies. In the showing area these volcanics are carbonatized (listwaenite alteration) ultramafic volcanic rocks that commonly weather brown. The contacts between the ultramafic volcanics and other rocks are strongly foliated and serpentized. The serpentized ultramafic rock is dark green, very fine-grained to amorphous and occasionally pyritic. (Casselman, 2004).

Most recent government based geological mapping was done by Luke Bickerton, Maurice Culpron and Dan Gibson in 2012. The HGP property is underlain by metavolcanics, limestone, chert, and ultramafic units of the Carboniferous to Jurassic Cache Creek Terrane; and Upper Triassic rocks of the Aksala Formation which form the upper part of the Stikinia Terrane (Figure below). These units have subsequently been intruded by mid-cretaceous intrusives of varying composition including granodiorite to quartz monzonite to syenite. All underlying lithologies are described in detail below. Descriptions are based off the 2012 mapping.



## Cache Creek Terrane

### **METAVOLCANIC ROCKS**

Metavolcanic rocks are the most widespread unit in the Cache Creek terrane in the project area. Metavolcanic rocks in the area are mainly composed of plagioclase and clinopyroxene within a chloritic matrix. They locally show pillowed and hyaloclastic textures. The basaltic rocks are typically massive and extensively chloritic. These rocks range from dark grey, medium-grained to aphanitic basalt to light grey, fine-grained andesite. They are commonly thoroughly fractured and silicified, and locally contain amygdules filled with both calcite and silica. The flows exposed in the Marsh Lake and Judas Creek areas typically dip to the southeast.

### **CHERT**

Massive chert is locally exposed near Jakes Corner where it is intercalated with metavolcanic rocks. Apart from the more massive occurrences, chert also appears as subordinate lenses within the metavolcanic rocks and as clasts in volcanic breccia of the Cache Creek terrane throughout the map area. Chert units also commonly crop out as ribbon-banded sections, grey-red-brown in colour, and are locally contorted by soft-sediment deformation. Chert beds are normally 5 to 10 cm thick with fine-grained argillite interbeds, but thinner bedding is seen in the ribbon-banded outcrops.

### **LIMESTONE**

limestone occurs primarily as lenses within heavily to moderately chloritic basalt and only locally as thickly bedded, massive crystalline limestone to dolostone.

### **ULTRAMAFIC ROCKS**

Ultramafic rocks in the Cache Creek terrane are characterized by two main compositions; pyroxenite, ranging to serpentinite when in faulted contact with volcanic rocks and chert, or with rocks of the Whitehorse trough in the Judas Mountain and Judas Creek area. The ultramafic bodies to the east have the composition of harzburgite to dunite and are typically larger exposures. The typical western ultramafic rocks are exposed near fault contacts and are commonly altered to listwaenite (quartz-carbonate-fuschite). Serpentinite is also commonly found near these fault boundaries where it is locally brecciated. Pyroxenite in the western part of the map area is typically non-magnetic, medium grained and dominantly composed of clinopyroxene. These rocks show extensive chlorite and epidote alteration. The large harzburgite-dunite bodies in the eastern part are coarse grained and contain abundant magnetite. Locally, harzburgite shows a subtle cumulate texture of olivine with interstitial orthopyroxene; elsewhere, these rocks are sections of rounded blocks in a sheared matrix of heavily altered ultramafic. Veins of antigorite and serpentinite occur throughout these bodies and also in some areas that are intruded by pegmatite. Typically, olivine crystals are completely replaced by serpentine. The large ultramafic bodies are in fault contact with volcanic rocks of the Cache Creek terrane, but listwaenite alteration is not a prominent feature near these contacts.

## Stikinia Terrane

### **CASCA MEMBER**

The Casca member is composed of clastic sedimentary strata varying from coarse-grained, black-grey sandstone to fine-grained, thinly laminated, dark grey argillaceous siltstone. Siltstone units occur as thick, monotonous sections with grey and tan-coloured, very fine-grained sandstone interlamination. The siltstone beds are commonly graded and contain scour marks, flame structures, rip-up clasts, and locally, trace fossils; all indicate that the section is upright. The medium to coarse-grained quartz sandstone of

the Casca member has relatively immature grains which are angular to subangular and dominantly poorly sorted. The sandstone is commonly calcareous and occurs as 10 to 20 cm-thick beds among the more dominant argillaceous siltstone.

#### **HANCOCK MEMBER**

Carbonate rocks of the Hancock member of the Aksala formation are dominantly found north of Jakes Corner as massive, crystalline, locally fossiliferous limestone. These rocks were recognized through the mapping of Gordey and Stevens (1994). Carbonate rocks similar to the Hancock member also appear as locally contiguous, coarsely crystalline limestone to limestone breccia interlayered with siliciclastic rocks at different stratigraphic levels within the Casca member. Limestone clasts within the brecciated sections of the carbonate vary in size from 5 mm to 20 cm and are dominantly sub-rounded to sub-angular.

### **Surficial Geology**

The Cordilleran ice sheet has advanced at least 6 times over southern Yukon during the Pleistocene epoch (about the last 1.65 Ma); the last ice sheet retreated approximately 10,000 yrs ago. Ice accumulations in the Cassiar Mountains of south-central Yukon during the late Wisconsinan were responsible for glaciation of the HGP property area. The Cassiar lobe advanced northwesterly with subsequent retreats and advances. Ice flow during the last glacial maximum was independent of the underlying topography. Only as deglaciation thinned the ice sheet did underlying topography take effect on ice movements. As a result of de-glaciation, a large glacial lake would have occupied the Yukon river, Marsh Lake, Lake Laberge, and McClintock river valleys as ice made its final retreat, leaving a thick layer of glacial lacustrine sediment in the basin bottoms (Bond, 2007). The primary valleys adjacent to the HGP area would have been occupied by ice during this period of glacial recession.

By the early Holocene the glacial lake had begun to drain. On-going fluvial incision of the sediment dam on Lake Laberge, into the Holocene, would have continued to affect the geography of the Yukon River valley near Whitehorse. The decreasing level of Lake Laberge caused the Yukon River to down cut into the glaciolacustrine and morainal deposits to the south (Bond, 2007). The retreating waters of Lake Laberge also caused the southern shoreline and the Yukon River delta to migrate northward, thus depositing deltaic sands over the lacustrine fill. Such deltaic sands are seen along the Alaska highway turning off the HGP property. Quaternary glaciation has modified the pre-glacial physiography through base-level adjustments and erosion of summits and valleys. Landforms such as eskers and ice-marginal meltwater channels modified the landscape. Large volumes of meltwater were generated by the retreating glaciers causing both depositional and erosional landforms to develop.

Despite effects of glaciation rare remnant pre-glacial alluvial deposits occur in escapements or driftless areas. Pre glacial paleochannels represents an ancient placer that formed over a substantial amount of time allowing for greater sorting, erosion and subsequently a greater accumulation of gold. Such pre-glacial paleo placers account for the primary placer gold source in the Quesnel, Dease Lake and possible source for the South Klondike area which includes the Indian River the most productive placer gold creek in the Yukon in recent history. The south Klondike is an unglaciated region; paleo placer conglomerates from the area have been identified as being as old as Cretaceous in age (Albian, ca. 100 Ma) forming a consolidated to semi consolidated and locally auriferous conglomerate (Bond, 2007B). In the glaciated Cariboo and Dease Lake placer gold camps in BC, similar consolidated to semi consolidated auriferous conglomerates are interpreted as Tertiary in age (Leveson, 1993 & Bond, 2007). The Cariboo region near Quesnel is historically the most productive placer gold camp in BC.

Driftless or escapement areas that endured glaciation generally occur in valleys perpendicular to ice movements. The east-west trend of the primary valleys within the HGP property allowed for the preservation of pre glacial paleo placers from the northwesterly glacial advance. The presence of a preserved Tertiary fluvial deposit in the HGP area is suggested by the mature landscape morphology that is characterized by broad low-gradient valleys, deep recessive bedrock weathering, rounded summits and flat plateau surfaces. This landscape morphology is observed in other placer camps in the Cordillera such as Clear Creek, Ruby Ranges, the Klondike in the Yukon and Atlin, Dease Lake and the Cariboo in BC. This is further substantiated by field observations and exploration records that identify a preserved consolidated Tertiary conglomerate in 4 locations on the HGP property. The conglomerate ranges from consolidated to semi consolidated ranging from a matrix supported pebble-cobble conglomerate to an angular clast-supported talus breccia. The conglomerate lies in an unconformable contact over underlying serpentinite on Faith Creek as an in-basin fill.

## **Previous History**

### ***Placer Exploration***

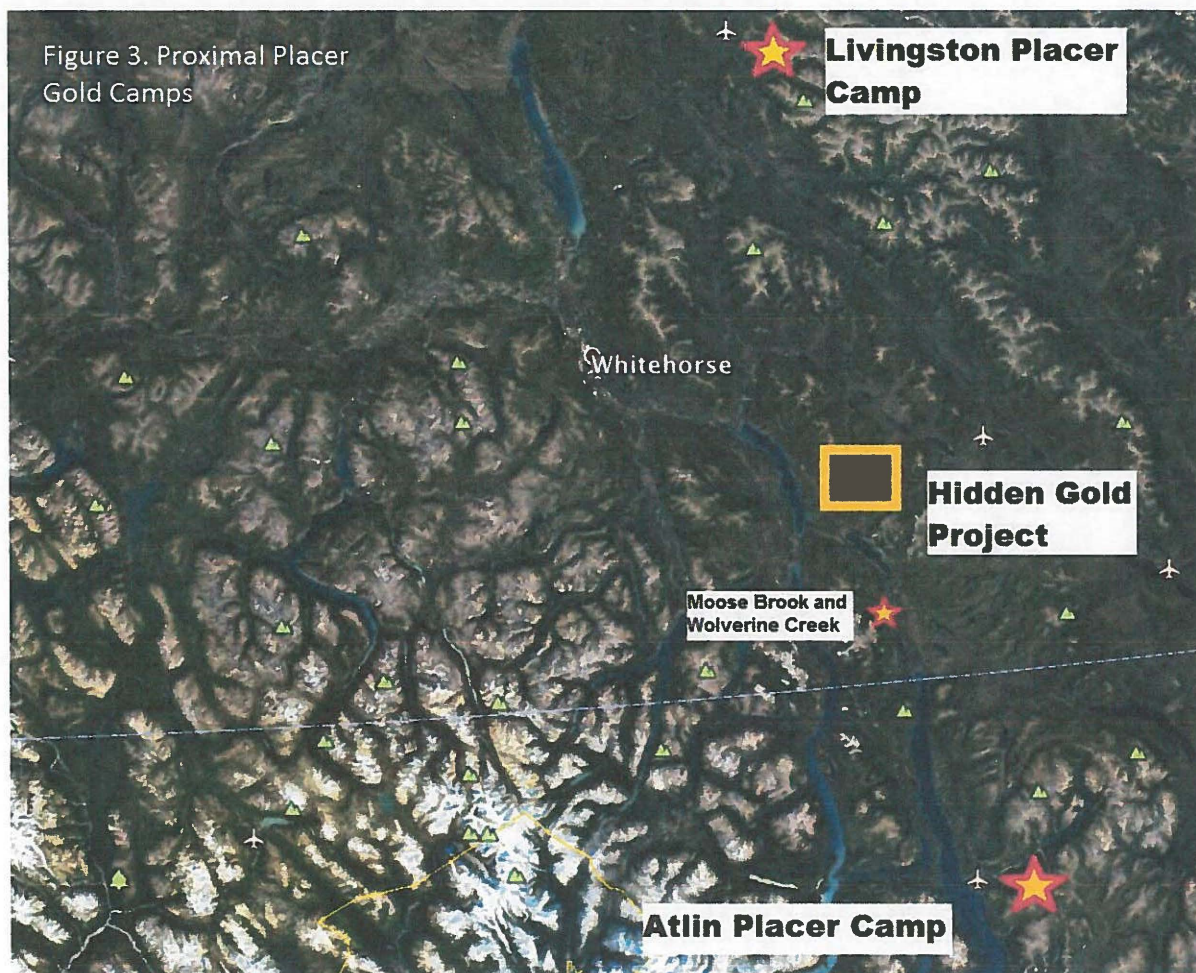
Gold was first discovered in the area in 1911 by Benjamin Miller, the news of his discovery spurred a staking rush to the area a month later. Judas Creek received its name in 1911 following the stampede; the stamperders originally wanted to name the creek "All In" creek based on their exhausted state when reaching the creek but named it Judas creek when they found little gold. Old workings observed in the field indicate a bedrock bench and reef were numerous old-aged hand dug pits and trenches were dug. In the valley bottom some shafts were attempted but likely stopped due to thawed and wet conditions. Into the 1930's and 40's several rumours developed of individuals working and finding coarse gold in the area. These anecdotes from the 1930's-1940's is not substantiated in written records.

The first recorded hand and mechanical placer exploration on the HGP property was carried out by Nicolai Goepfel or with 536005 Yukon Inc since 2011; consisting of hand test pitting, mechanical test pitting, auger drilling and bulk sampling. All work carried out by Nicolai Goepfel or 536005 Yukon Inc. will be summarized in the Recent Work section of this report.

The HGP property lies 100km south of historic Livingstone placer gold camp and 90km north of the historic Atlin placer gold camp. The Livingstone placer gold camp according to the Yukon Government royalty records account for about 18,000 ounces credited from Livingstone area creeks to 2014, the actual production is estimated to be at least 60,000 ounces. The Livingstone Creek area was first prospected in 1894 and mined shortly after. Mining has been intermittent since then, with the majority of activity taking place between 1898 and 1920. The Livingston area has produced some of the largest gold nuggets to be found in the Yukon since the Gold Rush; including a 20.5-ounce nugget in 1974 and a 12-ounce nugget in 2011 (Nevada Zinc, 2016).

Approximately 90 linear kilometers south of the HGP property is the historic Atlin gold camp. The Atlin gold camp is the second largest gold producer in British Columbia (Ash, 2001) with reported placer gold production of over 600,000 oz of gold between 1898 and 1946 from creeks in the area. The Atlin Goldfields Camp holds the provincial record for the largest gold nugget, which weighed 2.6 kg or 85 oz, and was discovered on Spruce Creek (BCGS Paper 2017-1, p.179-193). More recently, placer mining on Otter creek in the Atlin area has seen speculated annual yields from 2014-2016 ranged between 30,000 and 40,000 ounces of gold accumulated from the Slonski, Godkin, Zogas, and Pelly Construction operations (Clive, 2016). This following discovery of a rich deep paleo channel; the channel is in the upper subalpine elevations of the drainage and is roughly 33m of overburden and 5m of pay gravel on bedrock. Coarse visible gold hosted in a mesothermal quartz vein within carbonaceous phyllite was found in situ in the base of a placer excavation, indicating a proximal bedrock gold source.

The closest recent placer operations and active water and placer mining land use licenses are 22 linear km south of the HGP property on Wolverine creek and Moose Brook. From a property posting on Junior Miners, Moose Brook specifying that sub economic gold exists within the first 10ft and 'high-grade' gold at 40 – 50ft, no recorded values. Personal communications with operators on Moose Brook and nearby Wolverine Creek indicate local source of placer gold, with gold often tied to quartz material and a presence of Platinum on both drainages. On Wolverine Creek a previous miner Sid McKeown indicated that as much as one gram of platinum would accumulate for every ten grams of gold recovered.



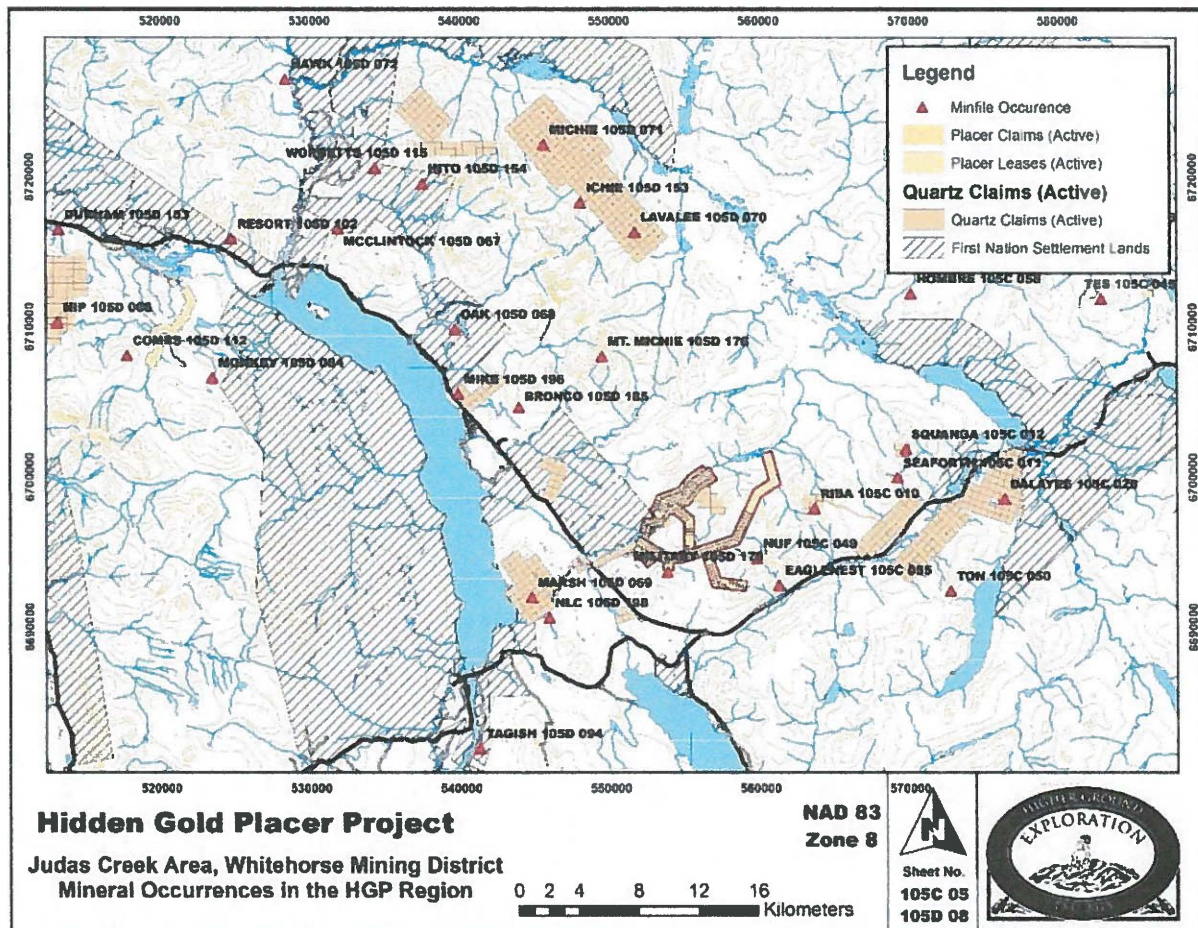
### ***Hard Rock Exploration***

During the Klondike gold rush of 1896, adjacent Tagish Lake and Marsh Lake served as one of the primary routes taken by most stampedeers on their way to the Klondike gold fields. Early prospectors and miners would have arrived by steamboat in Skagway or Dyea, Alaska and transported one-year worth of supplies over the Chilkoot Pass to Bennet Lake. There constructing boats and rafts to transport the supplies and equipment; the stampedeers sailed and rowed Bennet Lake into Tagish Lake and Marsh Lake into the Yukon River to Dawson City. Much of the first exploration was likely done by these stampedeers, prospecting as they journeyed north to the Klondike. Evidence is displayed as 'turn of the century' hand dug pits, trenches and shafts.

Prospecting during the 'turn of the century' led to the several significant mineral discoveries including; the Mount Skookum Au-Ag epithermal deposit, the Whitehorse Copper skarn deposits, and Venus polymetallic Au-Ag structurally hosted veins. This displays the variety of different styles mineralization that occur in the region. Other styles of mineralization evident in previous mineral exploration include; Ni-Cu-PGEs, Aaurite (Ni-Fe alloy) and chromite, asbestos, mesothermal listwaenite structurally hosted gold quartz-carbonate veins and potential nephrite Jade.

The earliest evidence of hard rock exploration in the region was in the late 1800s on the Ross Bank occurrence (Minfile; 105D 102) located approximately 35 km northwest of the HGP property. Several 'turn of the century' hand dug pits and a 50-meter adit were uncovered in 1984 yet no written records exist concerning these workings. It was drill tested for the first time in 1990. Geochemically anomalous results were returned from drill hole 90-2. Siliceous, pyritic sections of volcanic agglomerate and muddy siltstone returned up to 1989 ppb gold over 2.50 meters and 1671 ppb gold over 3.67 meters respectively. Seven other sections returned values between 505 ppb and 1310 ppb gold over core widths ranging between 0.92 to 2.75 meters (Doherty, 1990). The M'Clintock zone covers mineralized shear zones in Cache Creek Group mafic volcanic flows and tuffs. The shear zones are likely riedel or oblique shears to the Marsh Lake Fault located approximately 400 meters to the west. The highest value returned in 1990 was 24,243 ppb gold over 0.20 meters from drillhole 90-3 which tested the shear zones. Mineralization consists of disseminated pyrite and galena in narrow (< 0.30 meters wide) quartz or quartz-carbonate veins hosted by sheared, phyllic altered, mafic volcanics. Ten other sections returned anomalous gold values ranging between 592 ppb to 5046 ppb over core widths of 0.21 to 2.54 meters (Doherty, 1990).

Earliest recorded work for hard rock mineral exploration in the immediate property area dates back to 1951, involving hand and bulldozer trenching, in pursuit of asbestos (Minfile; 105D 011 and 105D010). Exploration for asbestos continued intermittently in the area until early 1980s. Majority of the work consisted of road construction, mechanical trenching, soil and rock sampling (Beauregard, 2002). Mechanical trenching by bulldozer opened several large exposures greater than 100 m long of serpentinized ultramafics. Minor soil sampling during this time returned up to 646 ppm Ni. As part of a Yukon Mineral Exploration Program in 2015, rock samples from the historic trenches returned peak values of 2167.5ppm Ni and 100.8ppm Co; trenches also contained listwaenite altered quartz-carbonate stockwork and nephrite jade float (Goepfel, 2016). The figure below outlines the distribution of mineral occurrences in the HGP property area.



An exploration program conducted by Dodgex Ltd in 1986 examined altered peridotite for PGE potential and located a chromite-rich zone in dunite with layer widths up to 5m (Minfile 105C 012). A one-meter chip sample across the zone assayed 52.2% chromium oxide, 145 ppb platinum and 2 ppb palladium. Replicated sample collected by Gordon McLeod in fall 2002 returned a total PGE value of 1740 ppb; this sample was tested using nickel fusion followed by ICP-MS analysis and returned anomalous PGE values: 683 ppb Ru, 417 ppb Ir, 406 ppb Os, 159 ppb Pt, 70 ppb Rh and 5 ppb Pd. The combined PGE assay yielded 39% ruthenium (light PGE) and 56% osmium, iridium and platinum (heavy PGEs). Alternate grab sample from McLeod in 2002 returned peak values of 105ppm Co, 953ppm Cr, and 2293ppm Ni, with 13 out of 14 grabs from assaying over 1400 ppm Ni (Beauregard, 2002).

The Tonnes of Gold (TOG) occurrence approximately 15 km southeast is the first recorded high-grade gold listwanite occurrence in the immediate vicinity; grab samples from the prospect returned peak values of 1422.2 g/t gold, >50 ppm silver, 7128 ppm lead and 3938 ppm zinc (Minfile 105C 028). The TOG claims were first staked in 1972 by local Whitehorse prospector, Gord McLeod, upon discovery of a small pod of massive chromite in ultramafic rocks. In 1979, Archer Cathro and Associates conducted geological mapping program on the property and microprobe analysis on a sample of massive chromite by District Geologist, Michael Marchand. The analysis returned a value of 49.4% Cr<sub>2</sub>O<sub>3</sub> (Casselman, 2004). In 1982 during a property visit conducted by Noranda Exploration Company Ltd visible gold was found in a siliceous rock on the property. Further prospecting in 1984 determined that coarse visible gold occurs with graphite, galena and sphalerite in a linear zone of quartz and quartz-carbonate veining along the

sheared contact between ultramafic and andesitic metavolcanic rocks of the Cache Creek Terrane. The highest gold grades occur along graphitic shears which segment massive quartz lenses in the footwall of a 10 m wide zone of talc-carbonate and quartz-carbonate-green mica alteration along the serpentinized margin of the ultramafic body. At least eight of these narrow, highly mineralized shear fractures occur over a 5 m width, and mapping and sampling in 1989 turned up visible gold at thirteen separate locations over a strike length of 26 metres. Drilling in 1990 tested the quartz veins up to 30 m down dip, over a strike length of 100 m. Hole 5-90 contained visible gold and returned assays up to 53 g/t gold over 0.18 m (Casselmann, 2004).

A high-quality airborne geophysical (DIGHEM) survey was performed by government agencies specifically over Cache Creek Group rocks in the vicinity of Jakes Corner. The survey of 2764 line-kilometres, at a line spacing of 200 metres, was flown over an area of 500 square kilometres. More than 500 bedrock conductors were identified (Smith, 1994; Power, 1995). From this survey, two strong linear geophysical anomalies occur at the site of the Military occurrence, Minfile 105D 178. The occurrence is located on the southeast boundary of the HGP project area. In the late 90s a ground geophysical survey was done to follow up on results from previous airborne geophysical data. The secondary survey identified several structures including a linear low in nearby Faith Creek. Follow up soils returned several Au anomalies up to 510 ppb and was subsequently trenched exposing the fault and contact area. Highest assays only returned 90 ppb Au after sampling; however, bulk sampling of vein material and gouge using a 5lb ball mill returned half a dozen flakes in several 1-2 kg samples (Beauregard, 1998). The occurrence consists of an extensively hydrothermally altered fault at the serpentinite and chert/limestone contact on the edge of a glacial plunge pool which forms an incised channel into Faith Creek. The zone is gouged, pyritic with clay and graphitic alteration and minor fuchsite. This could provide one local source to gold seen in nearby creeks. Access from the Alaska Highway to the HGP property was established during this exploration.

The most recent significant exploration in the HGP property region approximately 16 km to the north was carried out by FPX Nickel Corp. which discovered Awarite nickel-alloy mineralization as part of an extensive regional exploration program in 2011. In the subsequent years trenching, mapping and prospecting was completed on the Mitch Property which defined a 1.3-kilometre-long northwest-southeast trending zone of disseminated awaruite mineralization marked by a number of strong rock anomalies grading better than 0.08% Davis Tube magnetically-recovered ("DTR") nickel. In 2014 the company completed 873 meters of diamond drilling and intersected broad zones of broad zones of magnetically-recovered nickel exceeding a 0.06% cut-off. This includes 255.2 metres averaging a grade of 0.087% DTR nickel from 3.0 to 258.2 metres in hole 1 and the entire 453.6-metre length of hole 2 averaging 0.087% DTR nickel from 2.7 to 456.3 metres, with grades increasing to 0.123% DTR across the bottom 32.2 metres of the hole (FPX Nickel Corp.).

## Recent Work

The table below summaries the recent placer exploration work carried by the Nicolai Goepfel and later on with 536005 Yukon Inc. on the Hidden Gold Placer project. The description of the work also highlights some of the more significant finds.

Year	Work Completed	Description
2011	prospecting	Discovery of paleo channel conglomerate with overlaying boulder gravels. Initial test pan on creek was done. Trace gold and abundant concentrate, primarily magnetite.
2012	prospecting / hand dug test pitting	Two weeks spent digging hand dug test pits on first mile and a half of Faith Creek above confluence with Judas Creek; material was screened and tested by panning. Seven hand dug test pits were excavated on benches, bedrock and false bedrock outcrops with one hole down to top gravels on the creek level. All test sites indicated viable accumulations of gold with pan tests yielding up to 4.5 mg in a single pan.
2013	prospecting / hand dug test pitting / staking	One-mile prospecting lease was staked. Hand dug test pits from the previous season were sampled again, four 5-gallon buckets (0.1 of a yard) of material from each hole was sampled using a small high banker sluice box. Results yielded up to 0.2 g for 0.25 yard. Additional prospecting and panning were done upstream on Faith Creek from 1.5 to 3 miles from the confluence of Judas Creek. 3-mile prospecting lease was staked.
2014	mechanical test pitting / prospecting / staking	Half a yard on material was sluiced with small vibrating flying dutchman sluice box producing 2.5 grams of gold on a bench at the lower downstream part of Faith Creek. A larger shotgun box was constructed and ran two yards producing 1.5 grams. 3 other test pits were dug on bench. Additional prospecting was done on Judas Creek and two other tributaries and proven to contain placer gold; subsequent prospecting leases and placer claims were staked three drainages.

2015	mechanical test pitting / auger drilling/ staking	38 test pits were dug on Faith Creek, 25 test pits on Judas Creek and 2 test pits on Hope creek. Test pits were panned and pits with good results had 0.1 yrd <sup>3</sup> sluiced. Test pits on Faith Creek tested top gravels and indicates payable grades up to 25-50 mg from 0.1 yrd <sup>3</sup> and average of 5 ft of overburden. Test pits on Judas Creek tested an upper gravel layer and returned pans up to 20 mg. Pan test from test pits on Hope creek yielded up to 2.5 mg. 111 ft of 6-inch auger drilling was done on 3 locations on Faith Creek and 480 ft 6-inch auger drilling was completed on 9 locations on Judas Creek. Results from drilling on Faith Creek indicate a bedrock ledge were bedrock goes from 55ft to 24 ft to 16ft and returned 50 mg of gold from one 5-gallon pail or an average of 2 grams per yrd <sup>3</sup> (0.765 m <sup>3</sup> ). Drilling on Judas Creek had bedrock varying from 70+ ft to 10 ft. Gravels form intermittent layers on downstream side and a more consistent layer up stream. Leases were staked into claims and additional bench leases were staked.
2016/2017	prospecting/reclamation	Test pits were back filled and any slash piles were chopped to size and burned. Minor sampling of test pits and prospecting.
2018	bulk sampling / analytical testing	100 yrd <sup>3</sup> (76.46 m <sup>3</sup> ) of material was processed through trommel off of bench on the downstream end of Faith Creek; producing 2.953 oz of gold or an average grade of 1.2 grams per cubic meter. Concentrate was tested with several analytical methods and determined to contain iron, nickel, platinum and palladium.
2019	geophysics / mechanical test pitting / hand dug test pits/ staking	Several locations on Judas Creek and Faith Creek were surveyed using magnetometer and seismograph. 14 mechanically excavated test pits were dug on Judas Creek. Eight hand dug test pits were done on Judas Creek and the right and left limit benches as well as two on an unnamed tributary of Faith Creek and 4 on an alternate tributary between Judas and Faith Creek. Magnetometer survey identified several potential pay areas, seismograph provided depth to bedrock readings. Hand dug test pits indicated gold present on the Judas Creek benches and on the two unnamed tributaries. One tributary also indicated abundant platinum. Several prospecting leases were staked and broken into claims.

2020	geophysics / mechanical test pitting / bulk sampling	Several locations on Hope Creek were surveyed using seismograph. Nine mechanically excavated test pits were dug on Hope creek and two on Faith Creek. Positive results were further tested through bulk sampling with 25 yrd <sup>3</sup> /hr trommel.
------	--	--

### 2020 Aerial Drone Survey

From August 4-6, 2020 an aerial drone survey was carried out on three different areas on the Placer Claims in the Judas Creek area held by 536005 Yukon Inc. The aerial drone survey covered a total of 5.76 square kilometers. The first survey location covered an area of 4263583.07m<sup>2</sup> located on REBOUND 1-13, JGOLD, JGOLD 1-13, 15-21, 39-43 & 64-78 on Judas Creek. The second survey location covered an area of 185459.87m<sup>2</sup> located on a tributary of Judas Creek, referred to as Faith Creek on the EXCELSIOR 2-4. The third survey was conducted on another unnamed tributary of Judas Creek referred to as Hope Creek that covered 1310029.52m<sup>2</sup> on the NIKI 1-7 claims.

### 2020 Expenditures

The total expenditures for the 2020 exploration program are \$127,475.10. A summary of the expenditures is displayed below. All receipts and invoices are attached to this document.

Area	Drone km2	Drone \$
JGOLD Area	4.2635831	\$ 17,054.33
EXCELSIOR claims	0.1854599	\$ 741.84
NIKI claims	1.3100295	\$ 5,240.12
<b>Total</b>	<b>5.7590725</b>	<b>\$ 23,036.29</b>

### Conclusion and Recommendations

It is recommended to surveying the remaining areas of the property in order which gives a good base in wetlands identification, exploration planning and reclamation. Based on exploration results; further work is warranted to further evaluate the project through prospecting and drone surveys in the under-explored regions, followed up with mechanical test pitting. Sonic drilling is recommended to systematically test deeper regions of the property. Bulk sampling should be completed where favourable results are met to generate more accurate results through larger volume tests.

## **Statement of Qualifications**

I Nicolai Goeppel, of the city of Whitehorse, Yukon, certify that:

1. I worked and carried out work on the Hidden Gold Property in 2020, and have been involved with the Hidden Gold Placer project since 2011
2. I have completed an Earth Sciences B.Sc. at Memorial University of St. John's, Newfoundland in 2014
3. I have worked in the mineral exploration industry in the Yukon, Newfoundland, and British Columbia since 2009
4. I have been involved in the placer industry my entire life and engaged in placer gold exploration in the Yukon and BC since 2009
5. Owner and founder of Higher Ground Exploration Services since 2015

I Tanja Goeppel, of the city of Whitehorse, Yukon, certify that:

1. I worked and carried out work on the Hidden Gold Property in 2020, and have been involved with the Hidden Gold Placer project since 2015
2. I have completed the Prospector course at the Chamber of Mines
3. I have worked in the mineral exploration industry in the Yukon and British Columbia since 2015

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# Appendix I

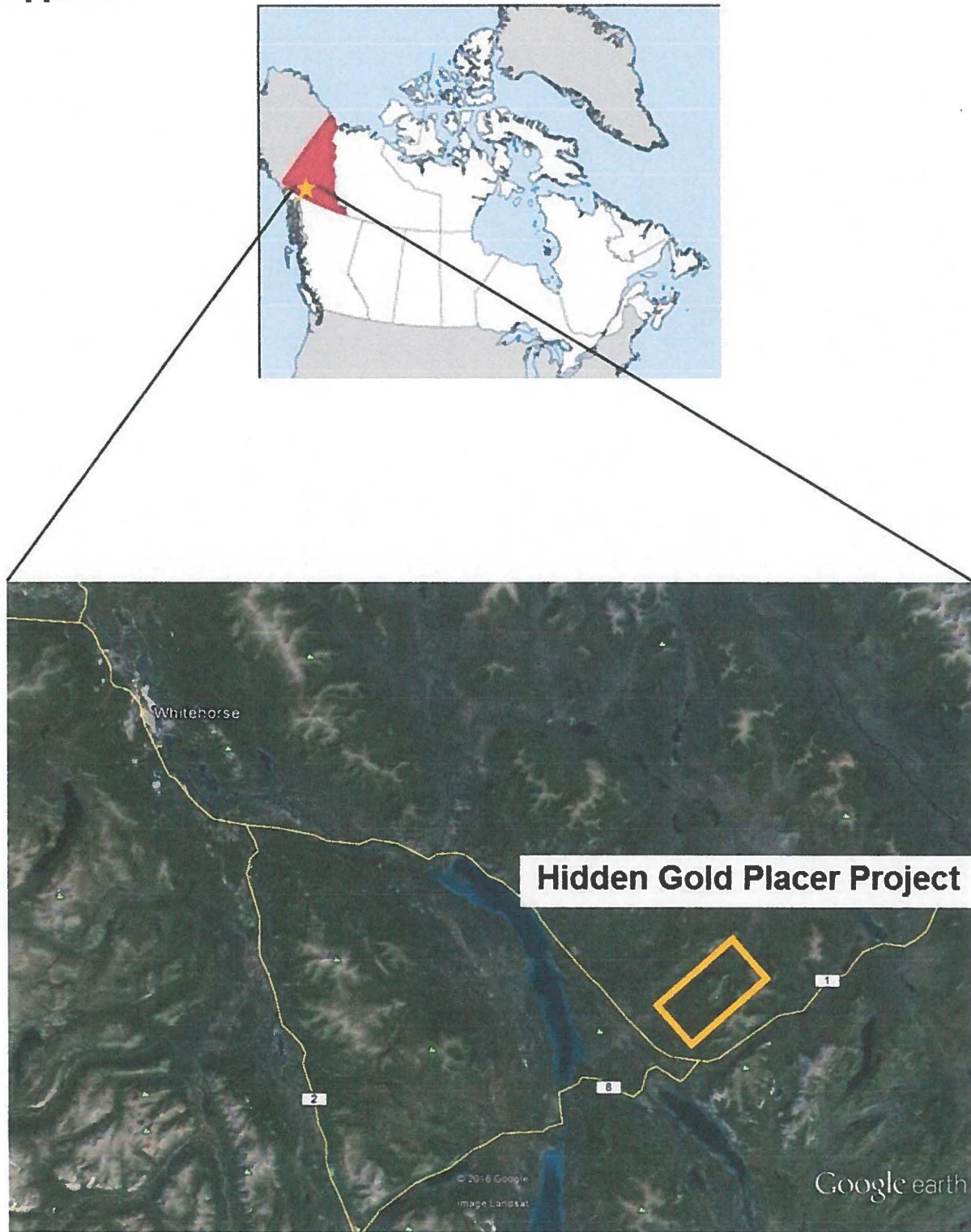


Figure 1. Location

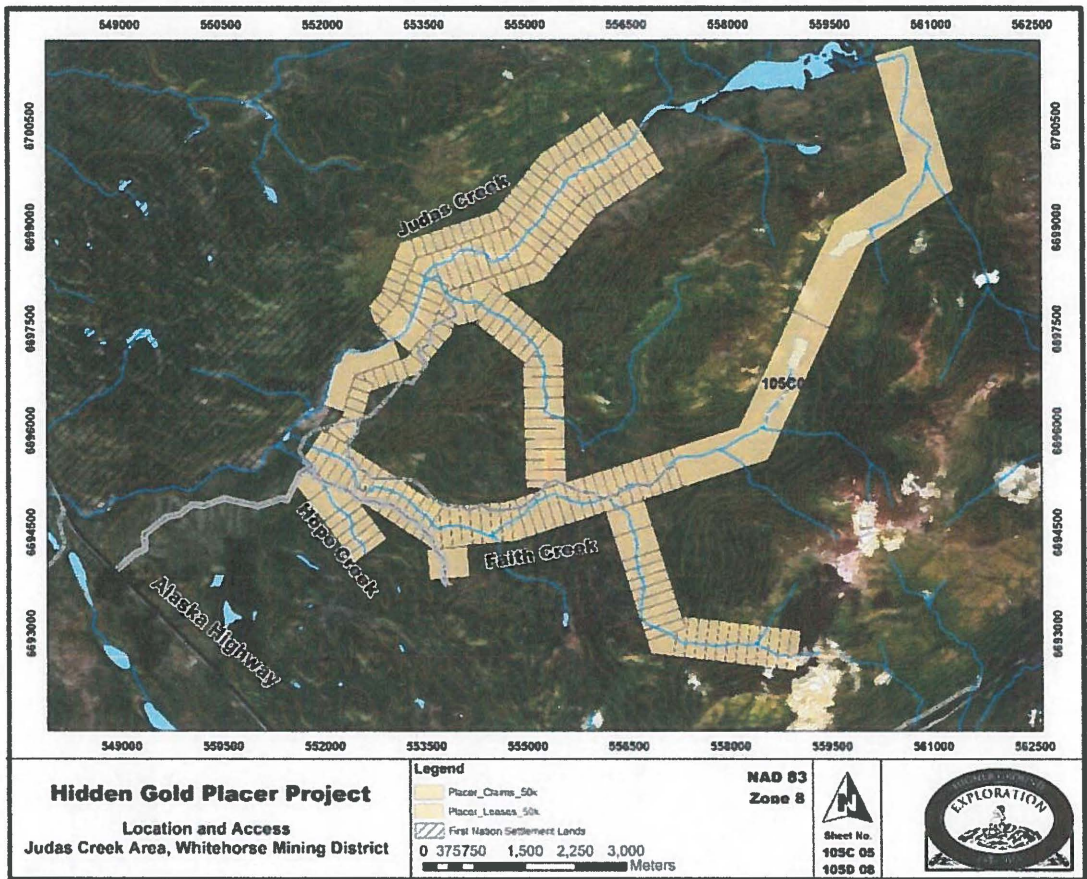


Figure 2. Hidden Gold Placer Project with detailed access

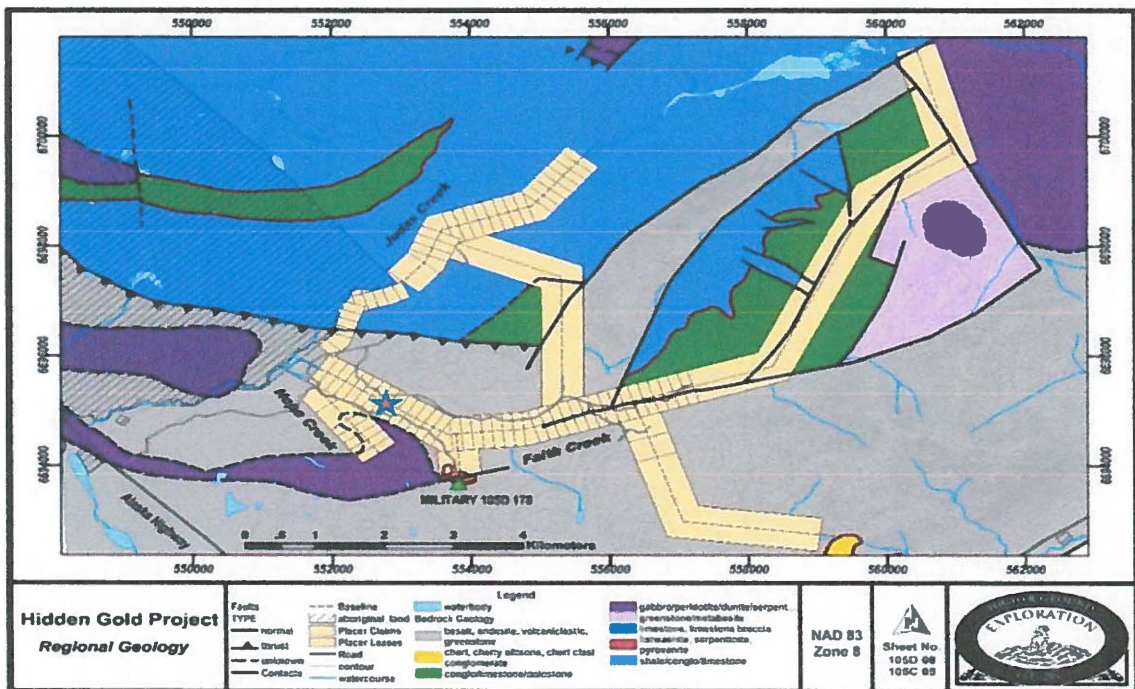


Figure 3. Regional geology

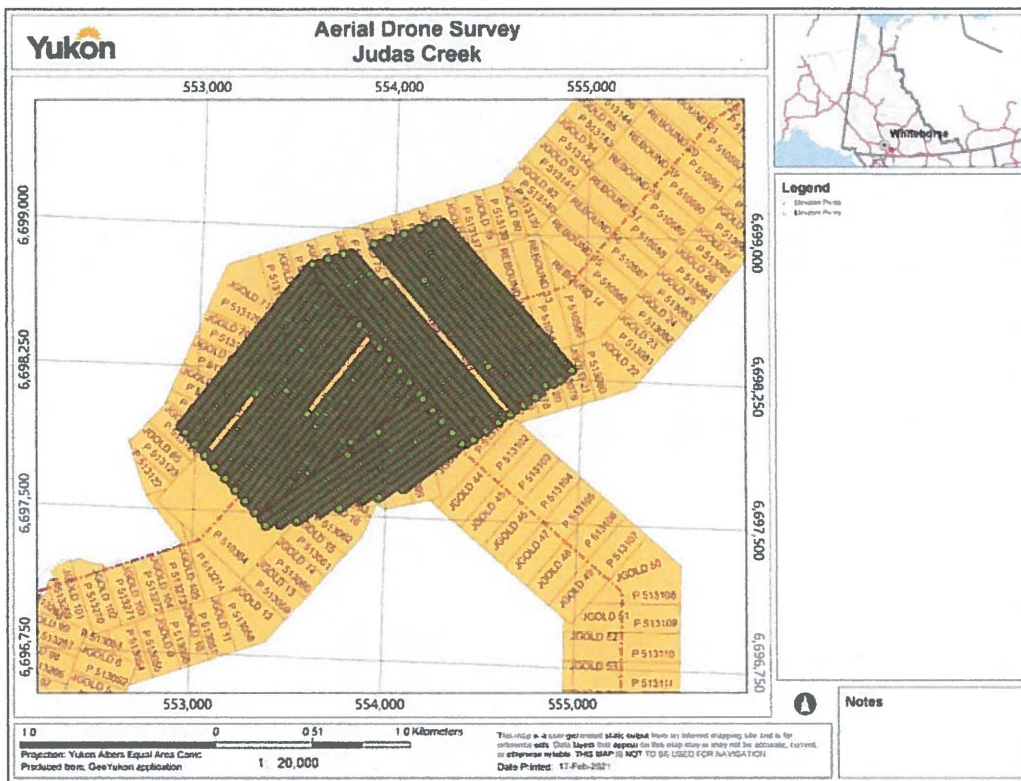


Figure 4. 2020 Aerial Drone Survey Judas Creek – JGOLD claims area

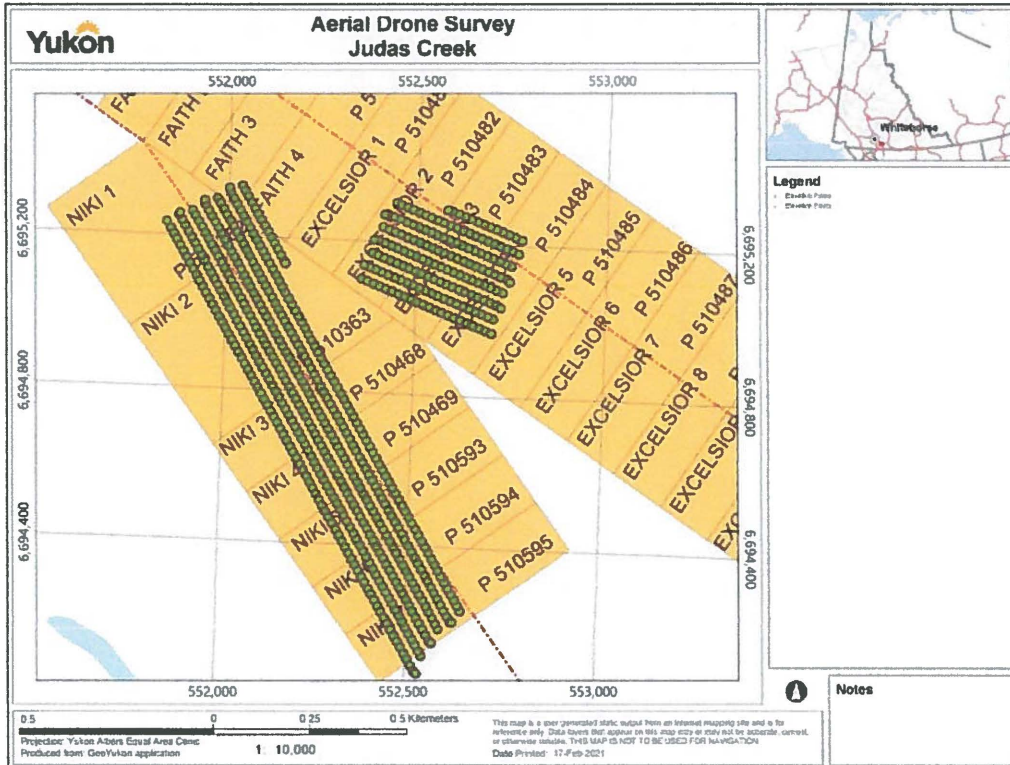
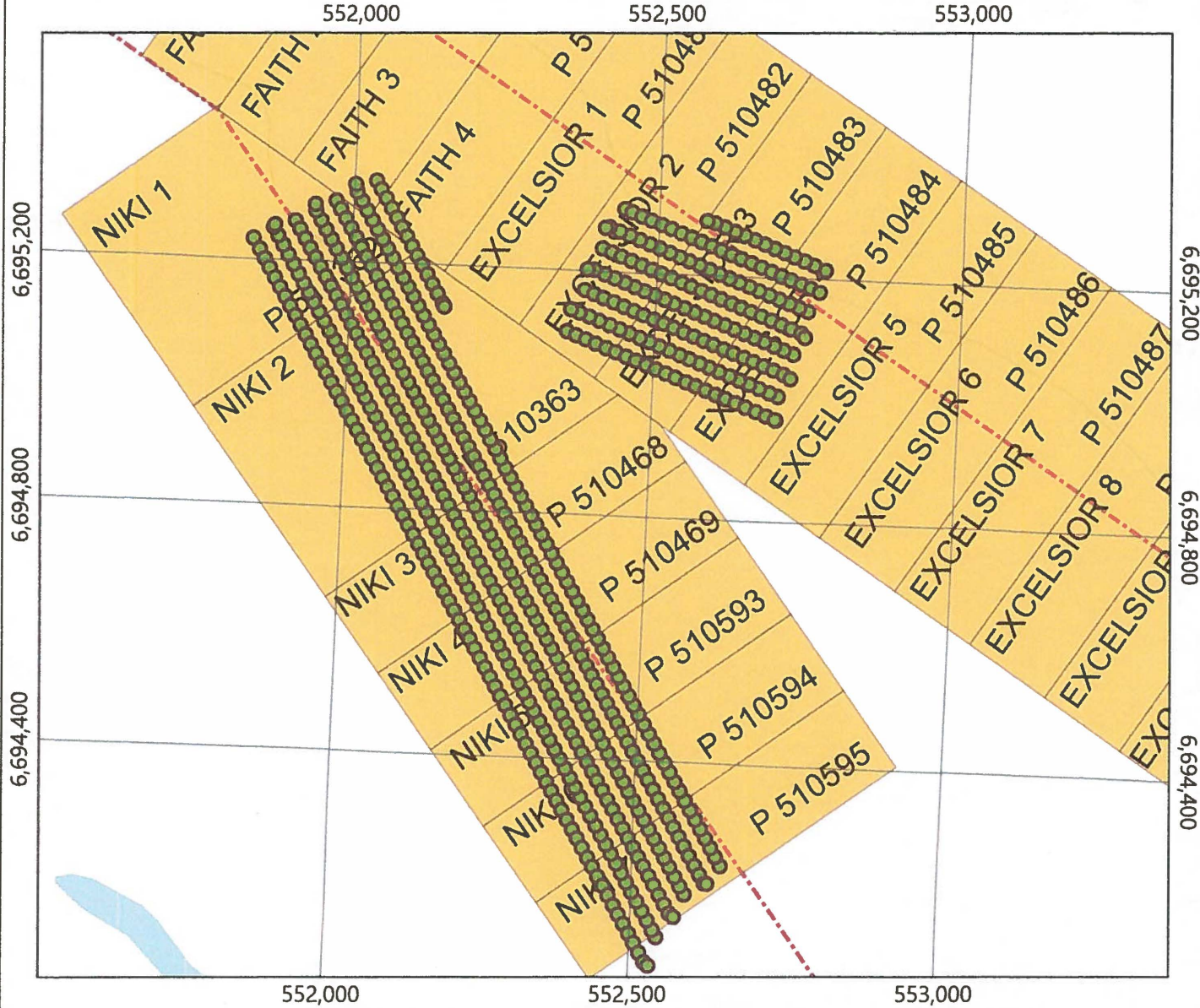
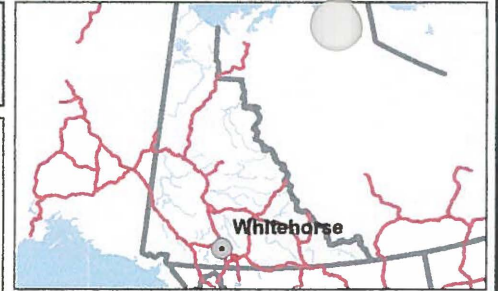


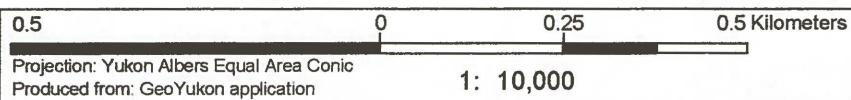
Figure 5. 2020 Aerial Drone Survey EXCELSIOR & NIKI claims



**Legend**

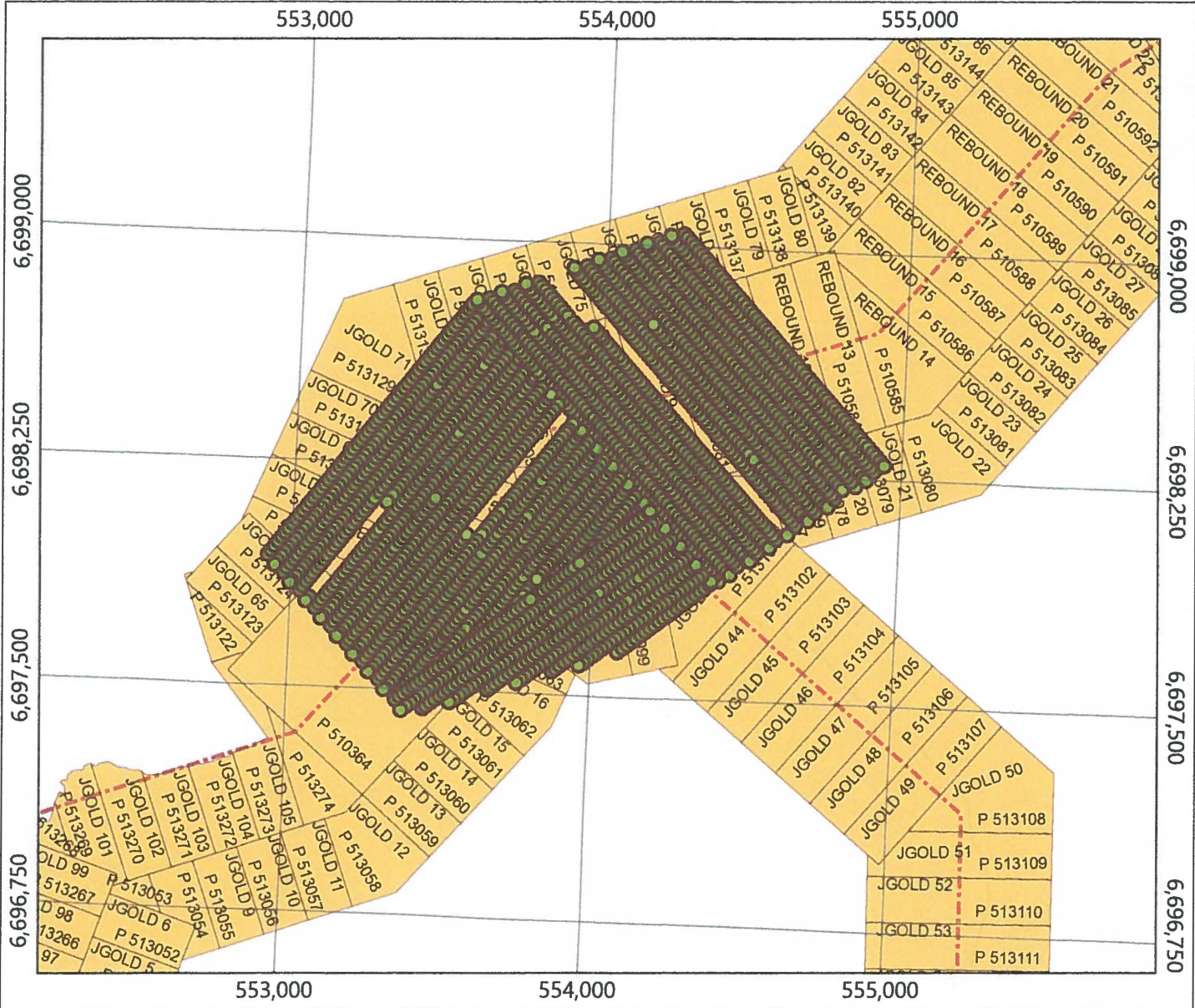
- Elevation Points
- Elevation Points

**Notes**



1: 10,000

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.  
Date Printed: 17-Feb-2021

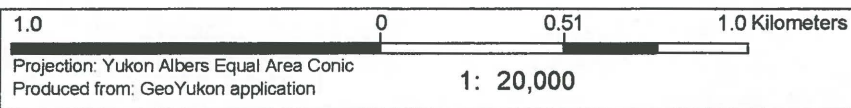


### Legend

- Elevation Points
- Elevation Points

### Notes



This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.  
Date Printed: 17-Feb-2021

**Appendix II**

# Judas Creek - Judas Creek



## Map Details Summary i

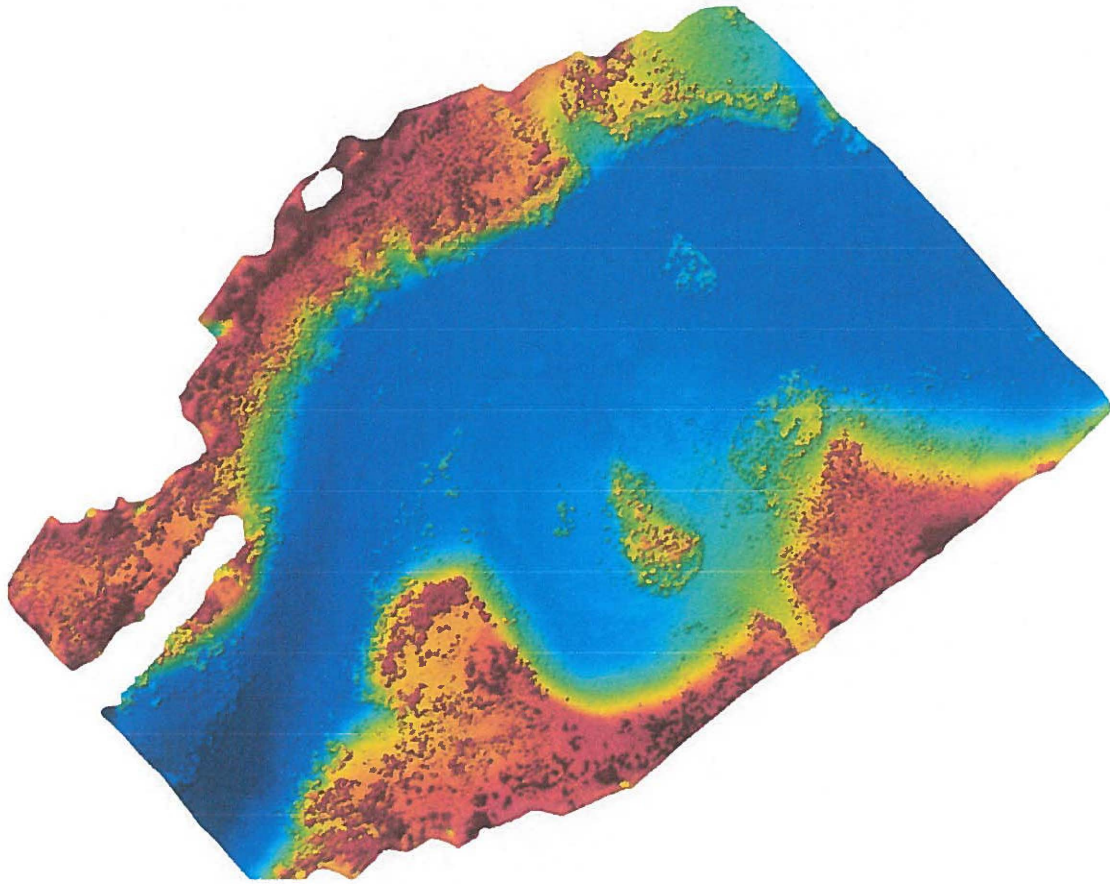
Project Name	Judas Creek - Judas Creek
Photogrammetry Engine	DroneDeploy Proprietary
Date Of Capture	August 4, 2020
Date Processed	January 25, 2021
Processing Mode	Terrain (2D)
GSD Orthomosaic (GSD DEM)	1.69cm/px (DEM 6.76cm/px)
Area Bounds (Coverage)	4263583.07m2 (46%)
Image Sensors	Hasselblad - L1D-20c

## Quality & Accuracy Summary i

Image Quality	High texture images
Median Shutter Speed	1/100
Processing Mode	Terrain Mode (2D) - Optimized for efficiently mapping large fields and crops, natural open terrain, and generating topographical maps. This mode expects Nadir (top down) imagery, and so is not recommended for reconstructing the sides of buildings, overhangs, or complex equipment.
Images Uploaded (Aligned %)	2374 (96%)
Camera Optimization	0.03% variation from reference intrinsics

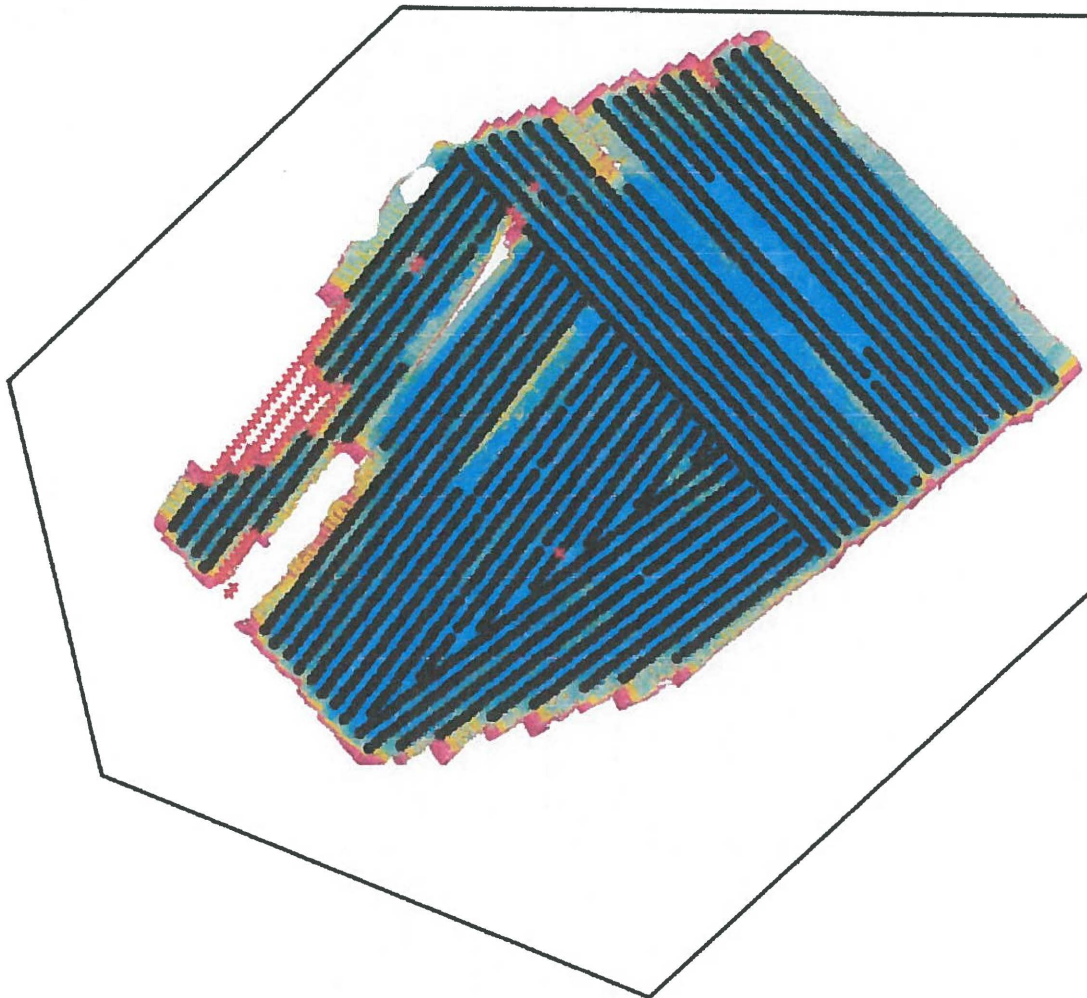
## Preview i





Dataset Quality Review ⓘ

# Orthomosaic Coverage i



- ROI
- Aligned
- ✖ Unaligned



Insufficient coverage, expect large holes in the map, and low accuracy.

Marginal coverage, expect distortion or holes on buildings or sharp edges, and lower accuracy measurements.

Good coverage, expect a high quality reconstruction

Sensor(s) Used	Hasselblad - L1D-20c
Image Count (by sensor)	2374
Image Resolution	5472x3648 (~20MP)
Orthomosaic coverage (% of area of interest)	46.91
Average Orthomosaic Image Density within Structured Area	10 images/pixel
Median Shutter Speed	1/100

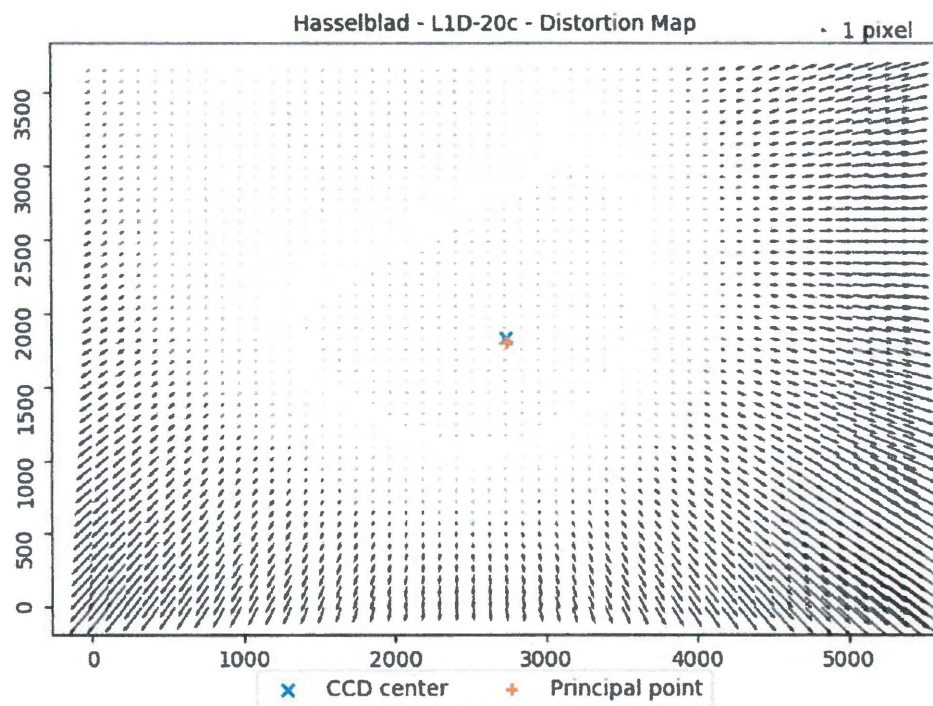
## Structure from Motion i

Aligned Cameras	96% 2282/2374
RMSE of Camera GPS Location	X 1.48m Y 1.60m Z 2.56m RMSE 1.94m

## Camera Calibration i

Camera Optimization	0.03% variation from reference intrinsics
---------------------	---

Hasselblad - L1D-20c

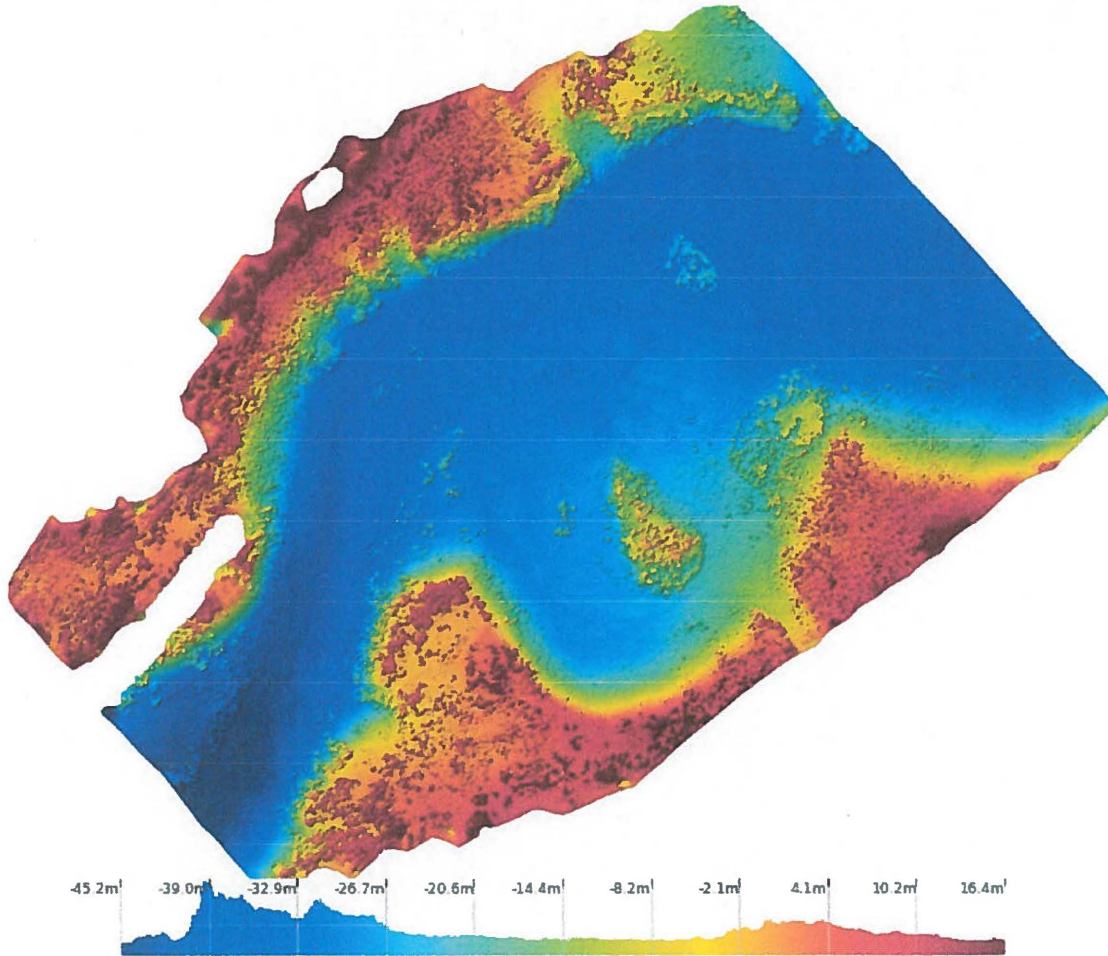


## Densification and Meshing

Processing Mode	Terrain Mode (2D) - Optimized for efficiently mapping large fields and crops, natural open terrain, and generating topographical maps. This mode expects Nadir (top down) imagery, and so is not recommended for reconstructing the sides of buildings, overhangs, or complex equipment.
Processing Mode Quality	High
Nadir Images	100%
Oblique images	0%
Horizontal images	0%
Total Points	25.3 million
Point Cloud Density	12.65 points/m <sup>2</sup>
Mesh Triangles	4.0 million

## Digital Elevation Model (i)

Mode	Generated from Mesh
DEM GSD	DEM 8.58cm/px
Relative/Absolute	Relative Altitude vs Drone takeoff



This map and report was produced with proprietary cloud photogrammetry software from DroneDeploy. [Provide feedback to improve this report](#)

# Judas Creek - Judas Creek



## Map Details Summary i

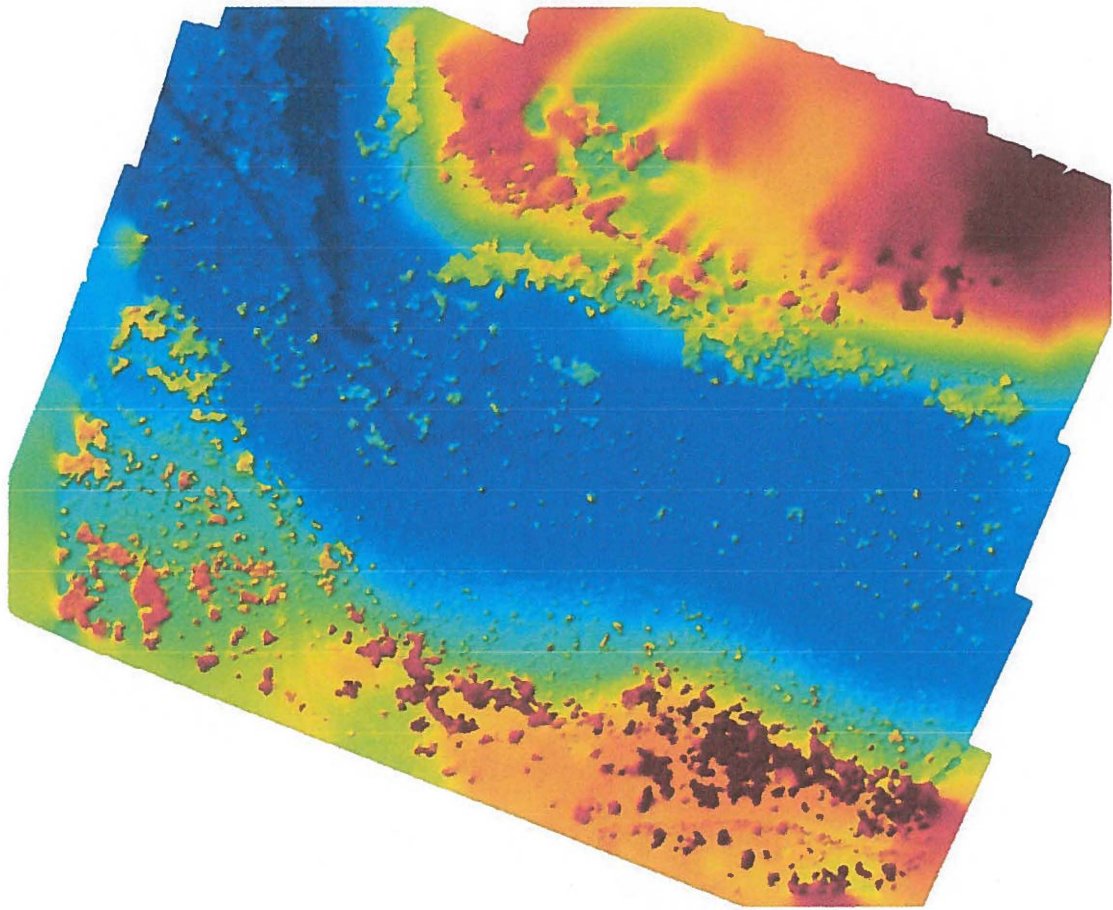
Project Name	Judas Creek - Judas Creek
Photogrammetry Engine	DroneDeploy Proprietary
Date Of Capture	August 5, 2020
Date Processed	February 1, 2021
Processing Mode	Terrain (2D)
GSD Orthomosaic (GSD DEM)	1.69cm/px (DEM 6.76cm/px)
Area Bounds (Coverage)	185459.87m2 (73%)
Image Sensors	Hasselblad - L1D-20c

## Quality & Accuracy Summary i

Image Quality	High texture images
Median Shutter Speed	Low shutter speed 1/60 - motion blur likely.
Processing Mode	Terrain Mode (2D) - Optimized for efficiently mapping large fields and crops, natural open terrain, and generating topographical maps. This mode expects Nadir (top down) imagery, and so is not recommended for reconstructing the sides of buildings, overhangs, or complex equipment.
Images Uploaded (Aligned %)	168 (92%)
Camera Optimization	0.02% variation from reference intrinsics

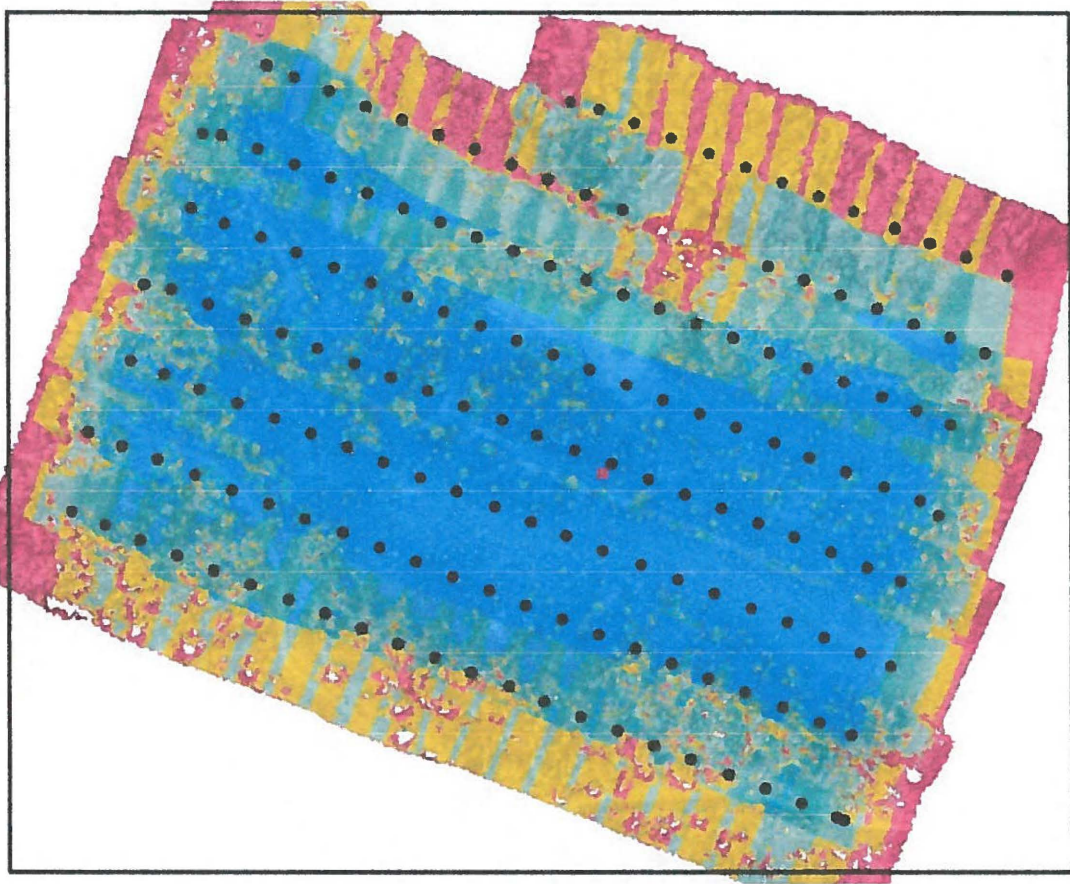
## Preview i





**Dataset Quality Review ⓘ**

# Orthomosaic Coverage i



ROI  
 Aligned  
 GPS Aligned  
✘ Unaligned

0	1	2	3	4	5	6	7	8	9+
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Insufficient coverage, expect large holes in the map, and low accuracy.

Marginal coverage, expect distortion or holes on buildings or sharp edges, and lower accuracy measurements.

Good coverage, expect a high quality reconstruction

Sensor(s) Used	Hasselblad - L1D-20c
Image Count (by sensor)	168
Image Resolution	5472x3648 (~20MP)
Orthomosaic coverage (% of area of interest)	73.65
Average Orthomosaic Image Density within Structured Area	6 images/pixel
Median Shutter Speed	Low shutter speed 1/60 - motion blur likely.

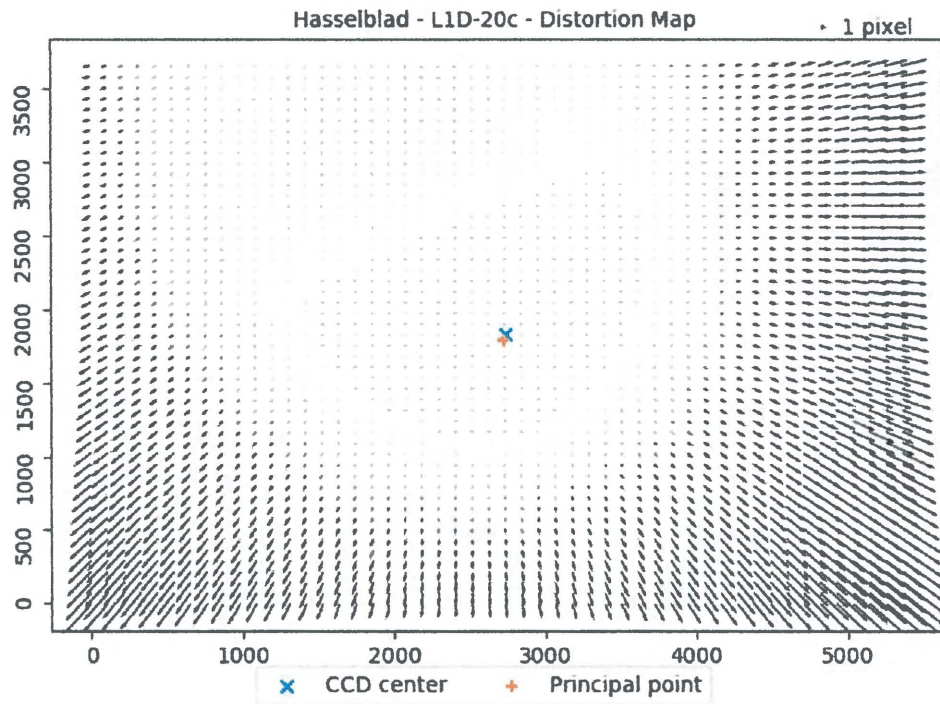
## Structure from Motion (i)

Aligned Cameras	92% 155/168
RMSE of Camera GPS Location	X 1.61m Y 0.61m Z 0.48m RMSE 1.03m

## Camera Calibration (i)

Camera Optimization	0.02% variation from reference intrinsics
---------------------	---

Hasselblad - L1D-20c

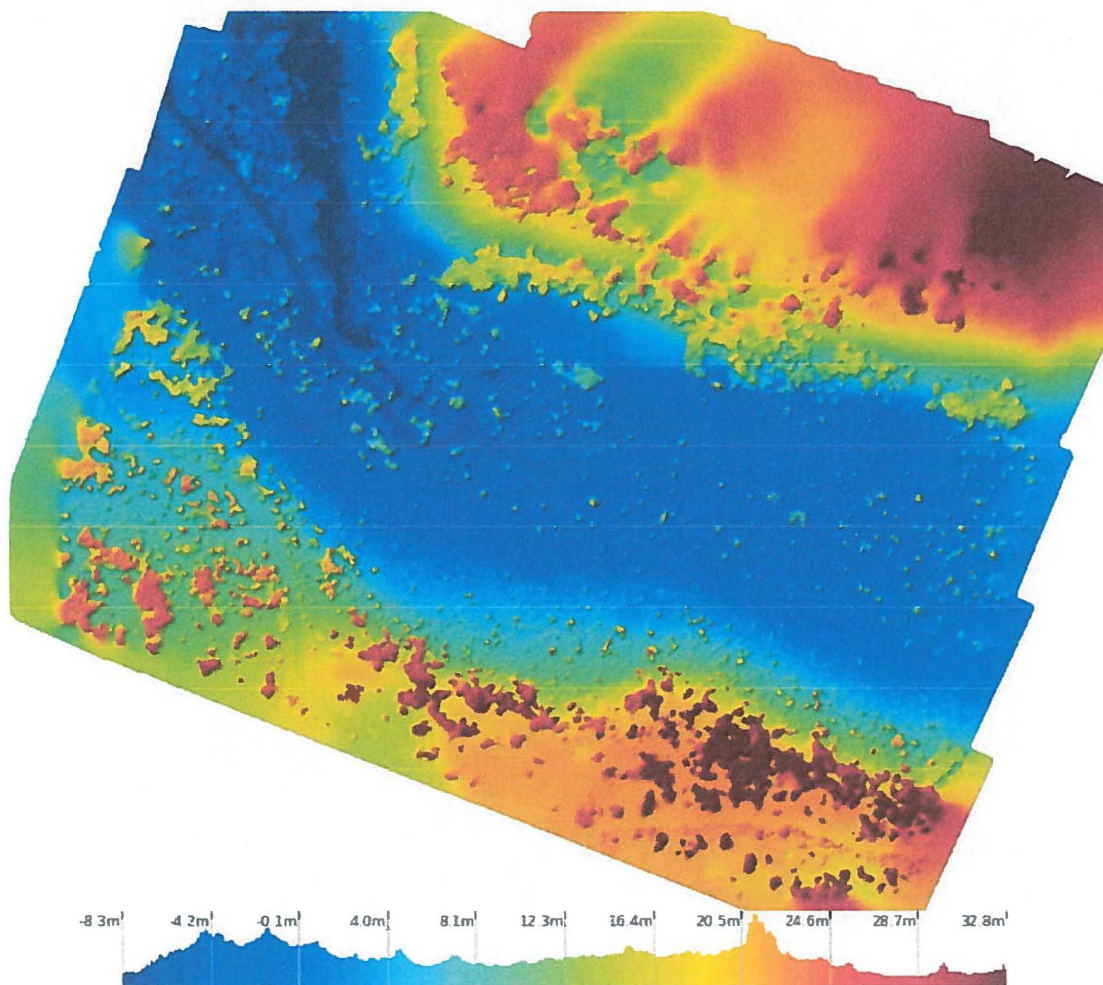


## Densification and Meshing

Processing Mode	Terrain Mode (2D) - Optimized for efficiently mapping large fields and crops, natural open terrain, and generating topographical maps. This mode expects Nadir (top down) imagery, and so is not recommended for reconstructing the sides of buildings, overhangs, or complex equipment.
Processing Mode Quality	High
Nadir Images	99%
Oblique images	0%
Horizontal images	1%
Total Points	1.3 million
Point Cloud Density	9.65 points/m <sup>2</sup>
Mesh Triangles	1.1 million

## Digital Elevation Model (i)

Mode	Generated from Mesh
DEM GSD	DEM 6.96cm/px
Relative/Absolute	Relative Altitude vs Drone takeoff



This map and report was produced with proprietary cloud photogrammetry software from DroneDeploy. [Provide feedback to improve this report](#)

# Judas Creek - Judas Creek



## Map Details Summary i

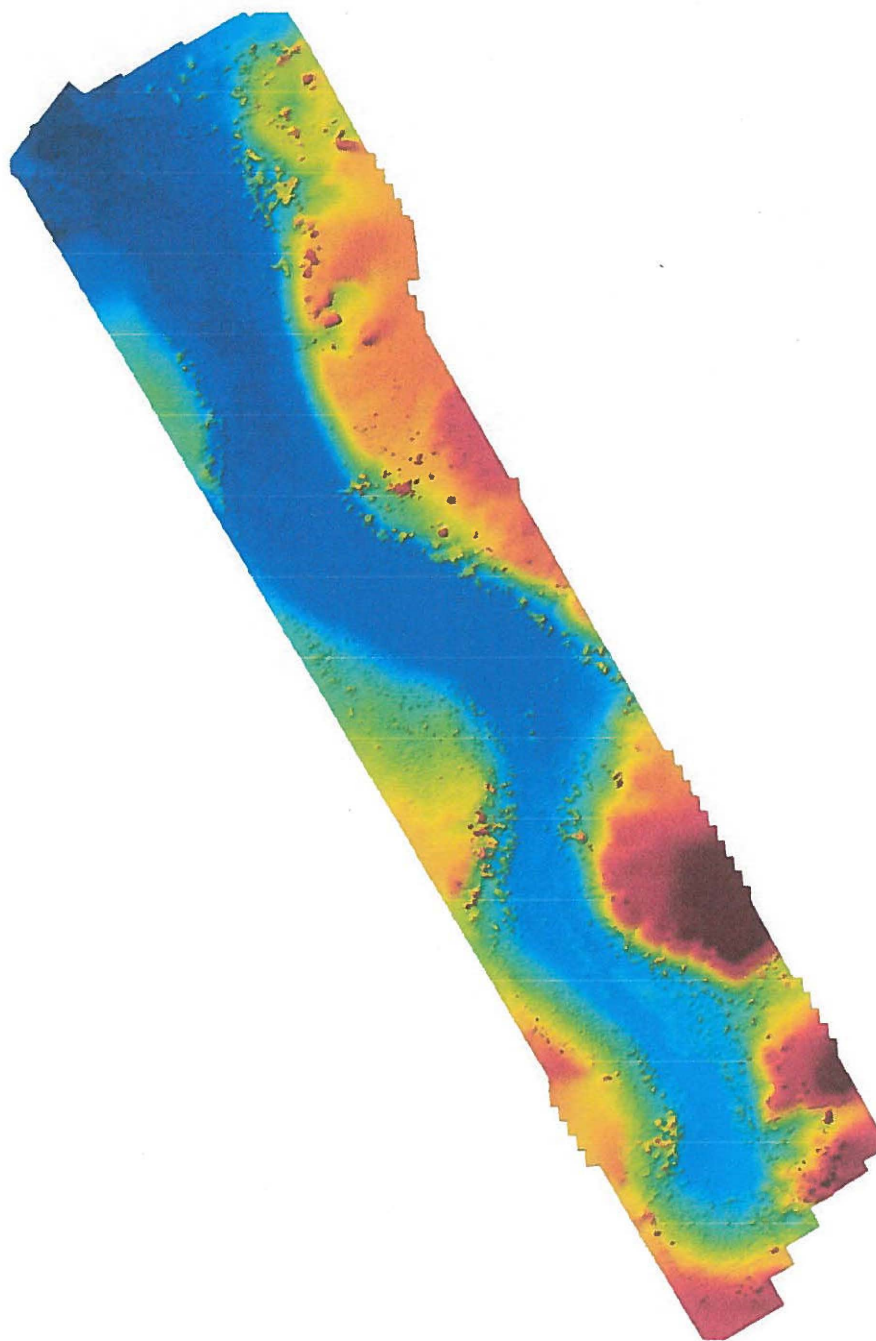
Project Name	Judas Creek - Judas Creek
Photogrammetry Engine	DroneDeploy Proprietary
Date Of Capture	August 6, 2020
Date Processed	February 10, 2021
Processing Mode	Terrain (2D)
GSD Orthomosaic (GSD DEM)	1.69cm/px (DEM 6.76cm/px)
Area Bounds (Coverage)	1310029.52m2 (27%)
Image Sensors	Hasselblad - L1D-20c

## Quality & Accuracy Summary i

Image Quality	High texture images
Median Shutter Speed	1/160
Processing Mode	Terrain Mode (2D) - Optimized for efficiently mapping large fields and crops, natural open terrain, and generating topographical maps. This mode expects Nadir (top down) imagery, and so is not recommended for reconstructing the sides of buildings, overhangs, or complex equipment.
Images Uploaded (Aligned %)	467 (91%)
Camera Optimization	0.02% variation from reference intrinsics

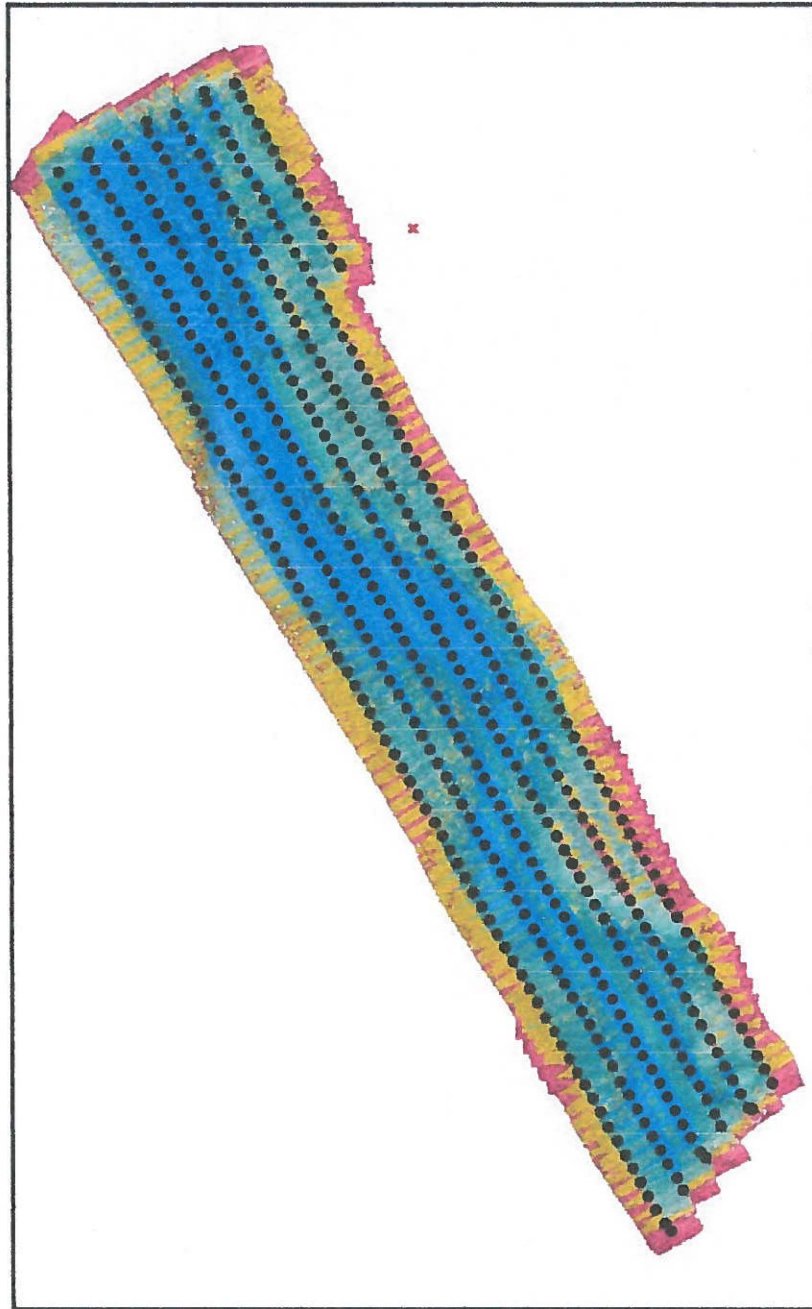
## Preview i





## Dataset Quality Review ⓘ

Orthomosaic Coverage ⓘ



- ROI
- Aligned
- GPS Aligned
- ✖ Unaligned



Insufficient coverage, expect large holes in the map, and low accuracy.

Marginal coverage, expect distortion or holes on buildings or sharp edges, and lower accuracy measurements.

Good coverage, expect a high quality reconstruction

Sensor(s) Used	Hasselblad - L1D-20c
Image Count (by sensor)	467
Image Resolution	5472x3648 (~20MP)
Orthomosaic coverage (% of area of interest)	27.92
Average Orthomosaic Image Density within Structured Area	6 images/pixel
Median Shutter Speed	1/160

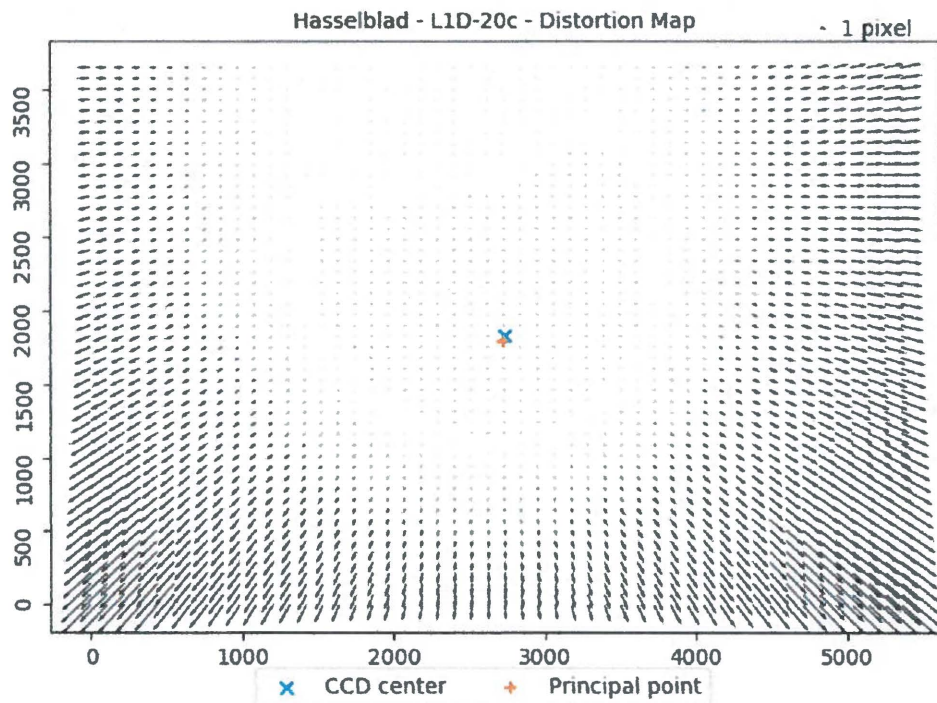
## Structure from Motion i

Aligned Cameras	91% 423/467
RMSE of Camera GPS Location	X 0.95m Y 0.94m Z 0.38m RMSE 0.80m

## Camera Calibration i

Camera Optimization	0.02% variation from reference intrinsics
---------------------	---

Hasselblad - L1D-20c

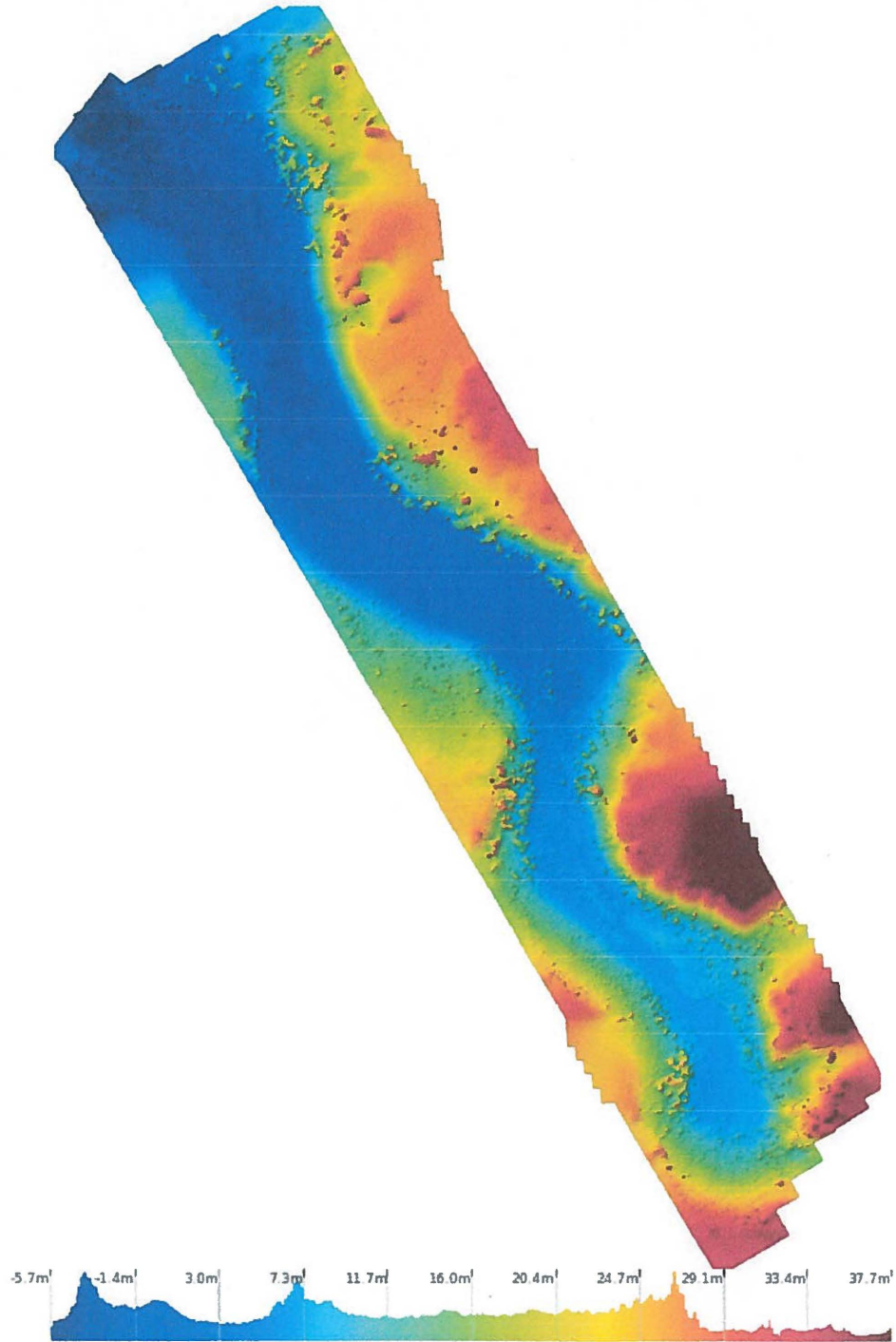


## Densification and Meshing i

Processing Mode	Terrain Mode (2D) - Optimized for efficiently mapping large fields and crops, natural open terrain, and generating topographical maps. This mode expects Nadir (top down) imagery, and so is not recommended for reconstructing the sides of buildings, overhangs, or complex equipment.
Processing Mode Quality	High
Nadir Images	100%
Oblique images	0%
Horizontal images	0%
Total Points	11.9 million
Point Cloud Density	32.44 points/m <sup>2</sup>
Mesh Triangles	4.0 million

# Digital Elevation Model i

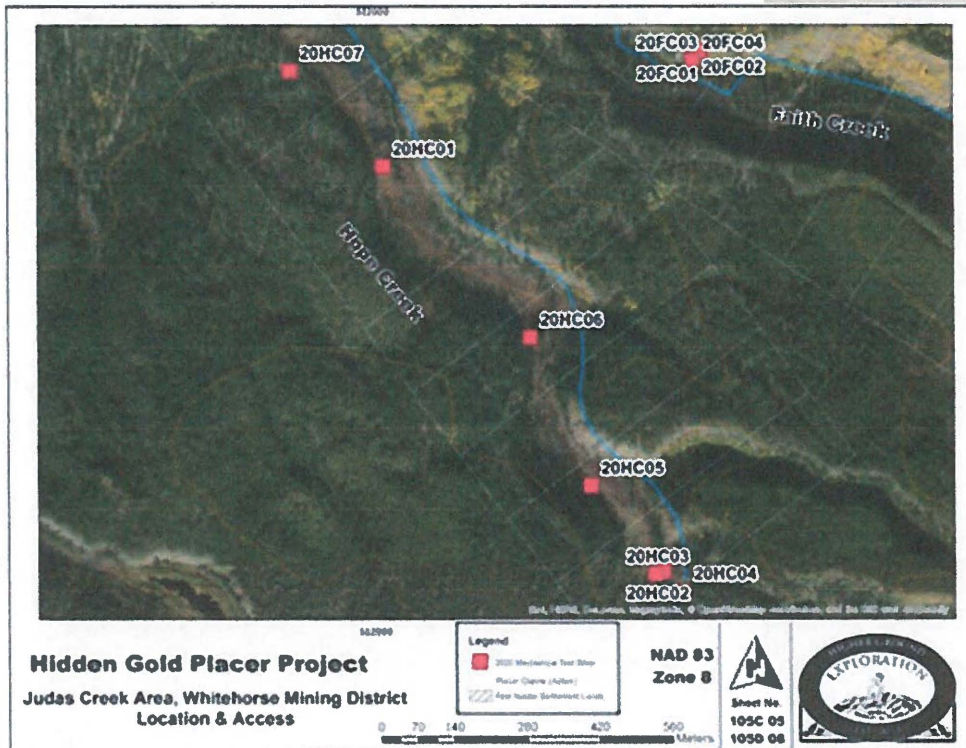
Mode	Generated from Mesh
DEM GSD	DEM 6.76cm/px
Relative/Absolute	Relative Altitude vs Drone takeoff



## 2020 Exploration Program

### 2020 Mechanical Test Pitting

In August 2020, mechanical test pitting was carried out over a 1.2km region of Hope Creek and extending the downstream bench on Faith Creek (Appendix I, Figure 7). Excavations were completed by a Doosan 140 with a maximum reach of 5 m. Prospective areas were followed up with larger volume tests using a 25-35 yrd<sup>3</sup>/hr. Controlled volume tests of gravels were completed at 5 cubic yard intervals or 6.3 tonne.



### Hope Creek

In 2020 the first test pit was dug Start of August to a depth of 1.5m on the left-limit mouth of Hope creek. Two holes were dug the first consisted only of sand the second located ~25 m away intersected 0.25 m of sand and then coarse gravel-cobbles. Approximately 0.25 yrd<sup>3</sup> (0.19m<sup>3</sup>) was processed through a small portable high banker sluice box and yielded 0.332 grams, or an average of 1.7 grams/m<sup>3</sup>. This was later followed up in August, 2020 with a Doosan 140 excavator and 25-35 yrd<sup>3</sup>/hr testing trommel. An additional four test pits were dug over an approximately two-hectare area to a depth of 5 m with consistent coarse gravels from surface to 5 m, bedrock was not reached in this area and therefore gold is finer in nature (image on right).

An additional six test pits were excavated over a 1.2 km region south from the mouth of the creek. Excavations were dug along the base of the drainage moving upstream. The upstream end forms a

glacial plunge pool and has extensive bedrock exposures. Shallow depths bedrock depths were overlain by approximately 1.5-0.25 m of organic overburden and up to 3.0 m of coarse gravel-cobble. Tests yielded gold in the gravels and in decomposed bedrock. Test pits half way through the 1.2 km stretch indicated an overlaying till layer approximately 3m thick truncated by a thin organic layer overlaying gravel. This test produced the highest gold values from test pitting. The organic layer suggests a paleo surface potentially preglacial in age and would support the significant gold recovered from the top gravels.

### **Faith Creek**

2020 test pitting focused on the upstream end of the right-limit bench on the lower end of Faith Creek and site of the 2018 bulk sample. The bench consists of a boulder-gravel layer on a tertiary conglomerate or paleochannel that is approximately 0.5-2.0 m thick and is truncated by serpentinite bedrock. Excavations on the bench edge tested the semi-consolidated paleo placer and yielded significant gold values. Material was removed and then moderately crushed using the excavator tracks. Gold was likely deposited in cracks in the horizon as well as from the unit itself. Gold was recovered that was still entrained in material consistent with the conglomerate (image above).



The excavation was continued an additional 2.0 m into the decomposed serpentinite bedrock. This unit is strongly clay altered and heavily fractured making it easy to excavate. Significant gold was also recovered from the decomposed serpentinite. Gold was likely deposited in fractures that penetrated both the conglomerate and serpentinite. The significant amount of gold and confirmed presence of gold in the conglomerate would further indicate that gold originated as it was trapped into the serpentinite bedrock during the deposition of the conglomerate (image left - gold recovered from decomposed bedrock).



**2020 Bulk Sampling**

A small gulch cross cut the bench on the south end and was also excavated. Serpentinite bedrock forms a reef that steeply dips east into hillside overlain by coarse gravel - cobble coarsening into boulders along bedrock up to 1.0 m wide and to a depth of 5 m. The gravel or pay layer becomes thicker into the hillside. Boulder-cobble gravels overlaying bedrock on the right-limit bench is observed in outcroppings over 1.0 mile upstream from the bench. The large lateral extent that is indicated to dip into the hillside coupled with amount of gold up to 4m into bedrock is a significant potential unexplored resource.

From August 3<sup>rd</sup> to September 6<sup>th</sup>, 2020 bulk sampling was carried out on Hope and Faith Creeks using a Doosan 140 excavator, Cat 335 skidsteer, automatic feeder and 25-35 yrd<sup>3</sup>/hr testing trommel. The automatic feeder allowed for consistent measurable feed rate and improved gold recovery. The trommel was fitted with 3.0 m of expanded metal for fine gold, 12-inch boiler box and 2.0 m of angle iron riffles for coarse gold recovery. Following initial controlled volume tests of gravels were completed at five cubic yard intervals or 6.3 tonne. The area was reclaimed using a Kubota KX 80 and the Cat 335 skidsteer. A Doosan 225 excavator was briefly used for loading of equipment at the end of the program.



Results on Faith Creek yielded peak values of 3.437 grams from five cubic yards (6.3 tonne) of bench gravels yielding an average of 0.8936 grams per cubic meter. More detailed exploration and sampling of the right-limit bench revealed gold up to 2.5 m into decomposed bedrock, gold in the semi-consolidated paleo placer and that gravels continue and thicken into the hillside to the east.

On the mouth of Hope creek results yielded peak values of 0.986 grams from top gravels from a five cubic yard test (6.3 tonne) or an average of 0.258 grams per meters cubed. Sampling tested from surface gravels to 5.0 m depth and produced consistent grades. Grades gradually become lower moving away from the mouth and mechanical test pitting indicates increasing placer gold grades upstream.

Bulk sampling and test pitting results are tabulated below.

ID	Easting	Northing	Length (m)	Width (m)	Depth (m)	Elevation	Description	Results
20HC01	552017	6694963	3	2	5.5		0-5.5m organic overburden, clayey. Black to dark blue grey with increasing clay content. Occasional boulders up to 0.75m wide likely colluvium	n/a
20HC02	552555	6694184	5	2	3	802.6	0-1.25m black organic clayey overburden with slide rock from near by mafic bedrock. 1.25-2.25m coarse gravel-cobble with coarse sand matrix, angular to rounded boulders up to 1m wide.	Gravels yielded 10 mg from 2 five gallon pails or 0.05 yrd <sup>3</sup> or an average of 0.39 grams per cubic meter.

								Clasts consist of granite, serpentinite, mafic intrusive, sediments and marble. 2.25-3m heavily fractured clay altered green decomposed serpentinite bedrock.	Decomposed bedrock returned 20 mg of gold from 2 five gallon pails or an average 0.79 grams per cubic meter.
20HC03	552538	6694179	3	2	4	809.3		0-0.25m partially frozen black organic overburden. 0.25-3.5m coarse gravel-cobble with coarse sand matrix, angular to rounded boulders up to 1m wide. 3.5-4m competent green fractured bedrock.	pan test of gravels returned 3.5 mg or an average of 0.7 grams per meter cubed.
20HC04	552592	6694145	4	2	3.5	803.8		Narrow rock canyon at south end of plunge pool. 0-2m organics with large rock slabs. 2-3.5m organics with intermittent silt / pea gravel layers and slab rock.	n/a
20HC05	552415	6694349	3	2	1.5	778.1		frozen muskeg.	n/a
20HC06	552299	6694634	5	3	5	809.5		0-3m sandy till with increasing clay content and clast density towards bottom with occasional boulders. 3-3.25 black organic layer possible paleosurface. 3.25-4.5m medium clast supported gravel with sandy matrix.	top gravels returned 15 mg from 2 5-gallon pails or 0.005 of a cubic yard or an average of 0.39 grams per cubic meter.
20HC07	551839	6695147	3	3	5	787.7		Mouth of Hope Creek. 0-0.1m organics. 0.1-4.5m coarse gravel/cobble with boulders up to 0.75m, sandy matrix.	0.986 grams from gravels from 5 cubic yard test (6.3 tonne) or an average of 0.258 grams per meters cubed
20HC08	551824	6695189	3	3	5			Mouth of Hope Creek. 0-0.1m organics. 0.1-4.5m coarse gravel/cobble with	0.622 grams from gravels from 5 cubic yard (6.3

							boulders up to 0.75m, sandy matrix.	tonne) test or an average of 0.16172 grams per meters cubed
20HC09	551789	6695190	3	3	5		Mouth of Hope Creek. 0-0.1m organics. 0.1-4.5m coarse gravel/cobble with boulders up to 0.75m, sandy matrix.	0.348 grams from gravels from 5 cubic yard test (6.3 tonne) or an average of 0.09048 grams per meters cubed
20FC01	552628	6695184	3	3	5		South end of bench small gulch that cross cuts bench was excavated. Serpentinite bedrock forms a reef that steeply dips east into hillside overlain by coarse gravel / cobble coarsening into boulders along bedrock. 0-0.25m organics. 0.25-0.75m loess consisting of fine brown sand. 0.75 to 5.5m coarse gravel / cobble, matrix supported coarse sand and boulders up to 1m wide on bedrock.	1.344 grams from 5 cubic yard test (6.3 tonne) or an average of 0.349 grams per meters cubed from gravels and 0.995 grams from gravels off bedrock from 1 cubic meter test.
20FC02	552614	6695167	4	2	2.5		Bedrock hillside western edge of bench. 0-1.5m clast supported conglomerate, remnant paleo placer, clast supported, increasingly sorted towards base with clasts becoming more angular and consisting primarily of serpentinite bedrock. 1.5-2.5m decomposed fractured green serpentinite.	1.537 grams from false bedrock and 5 yrd <sup>3</sup> (6.3 tonne) or an average of 0.3996 grams per cubic meter.

20FC03	552614	6695167	3	2	1.5		Bedrock hillside western edge of bench. 0-1.5m clast supported conglomerate, remnant paleo placer, clast supported, increasingly sorted towards base with clasts becoming more angular and consisting primarily of serpentinite bedrock. 1.5-2.5m decomposed fractured green serpentinite.	1.307 grams from decomposed serpentinite bedrock from a 5 cubic yard (6.3 tonne) test averaging 0.33982 grams per cubic meter.
20FC04	552614	6695167	3	2	2.5		Bedrock hillside western edge of bench. 0-1.5m clast supported conglomerate, remnant paleo placer, clast supported, increasingly sorted towards base with clasts becoming more angular and consisting primarily of serpentinite bedrock. 1.5-2.5m decomposed fractured green serpentinite.	3.437 grams from five cubic yards (6.3 tonne) of bench gravels yielding an average of 0.8936 grams per cubic meter

**Table 4. Summary of 2020 Mechanical Test Pits and Bulk Sample Locations**