

**2019 PLACER GOLD EXPLORATION PROGRAM  
REED-KELLI CREEK PLACER CLAIM GROUP GW01054**

supported by 50% funding through the  
**Yukon Mineral Exploration Program (YMEP)**

**Whitehorse Mining Division  
Donjek River Reed Creek Area  
Map Sheet 115G12 UTM Zone 7 Nad 83**

61°33' N Latitude, 139°37' W Longitude

Report by: G. Gutrath, Geologist, P.Eng.  
January 20 , 2020  
on behalf of the Claim Owner  
Kelli-Reed Creek Resources Ltd.

## INTRODUCTION

This report is written on behalf of Kelli-Reed Creek Resources Ltd., the 100% owners of the Kelli Placer Claim Group GW01054 ('Kelli Placer Group'). The claims are listed in Appendix B.

The exploration schedule and the cost of the 2019 program are outlined in Appendix A.

The writer has carried out geological mapping and sampling programs on the property in 2011 and 2013 and every year thereafter including 2019. This work involved outcrop and surficial geological mapping, pan sampling and small 'long-tom' sluice and shovel sampling along the edge of the 1980s placer mined areas.

The writer directed the sampling program that was carried out by Mr. Fred Erler who has a great deal of exploration experience on the Kelli Placer Group claims.

The placer claims are within a group of 98 quartz claims also owned by Kelli-Reed Creek Resources Ltd. In 2018 Strategic Minerals Ltd. optioned the Quartz Claims and completed an extensive program of geochemical soil sampling and geological mapping. In 2019 they continued the exploration program.

Mr. Lorne Smith of Haines Junction, Mr. Denis Dixon of Burwash Landing, and Mrs. Louise Bouvier of Destruction Bay provided transportation and logistical support for the field program. Mr. Glen Smith of Haines Junction was not able to be a part of the field program in 2019 for health reasons. As a result, the writer stayed for the entire program to assist Mr. Erler in the selection, mapping and description of sample sites as well as in the moving of the sample equipment. The writer also completed four traverses of the outcrop area between the Upper Canyon and the Forks. Geochemical soil sampling between Kelli Creek and the outcrop area to the east have outlined a high gold anomalous area that is a possible source area for placer gold.

The funding through the YMEP exploration program has been very beneficial in providing Kelli-Reed Creek Resources Ltd with additional capital to carry out an expanded program on the Kelli property. Many thanks to Derek Torgerson, manager of YMEP and the staff at Mineral Resources in Whitehorse for their patience and assistance over the past years.

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**Appendices:**

- Appendix A Exploration Schedule and Cost of 2019 Exploration Program
- Appendix B List of Claims, Expiry Dates and Owners
- Appendix C 2019 and 2018 Waypoints

**List of Maps (in pocket)**

Map 3, Sample locations and Reserve Blocks 1:500

**Figures in Report:**

- Figure 1: Property Location
- Figure 2: Placer Claims and ATV Trail from Highway 1 to Camp
- Figure 3: Placer Claims (Yukon Mining Viewer)
- Figure 4: Geology Vault – Kelli Properties
- Figure 5: 2019 Trenching and Placer Sampling 1:2000

**Photographs in Report:**

- Photo 1: Small sampling unit at Right Limit Trench (2016)
- Photo 2: Fred Erler holding pan with sample concentrate from Photo 1 location
- Photo 3: 2019, new sample sluice Trench3. Note large oversized pile.
- Photo 4: Trench 1, 2019 cleaning sample from sluice
- Photo 5: Bulldozer in trench attempting to reach bedrock
- Photo 6: Trench 3, sample concentrate with 10.87 gram nugget.
- Photo 7: Trench 2, course and fine gold in weighing pan
- Photo 8: Outcrop area on the west side (left limit) of creek (sample sluice set up
- Photo 9: Looking west at the face of Block 1
- Photo 10: Left limit trench sample with course hackly gold (south end of Panel Sampling)
- Photo 11: Left limit trench 50 m north of Photo 10 sample. Showing edge of gravels over high and rising bedrock (2015)

KELLI-REED CREEK RESOURCES

FIGURE 1

Atled Exploration Management Ltd

**PROPERTY LOCATION**

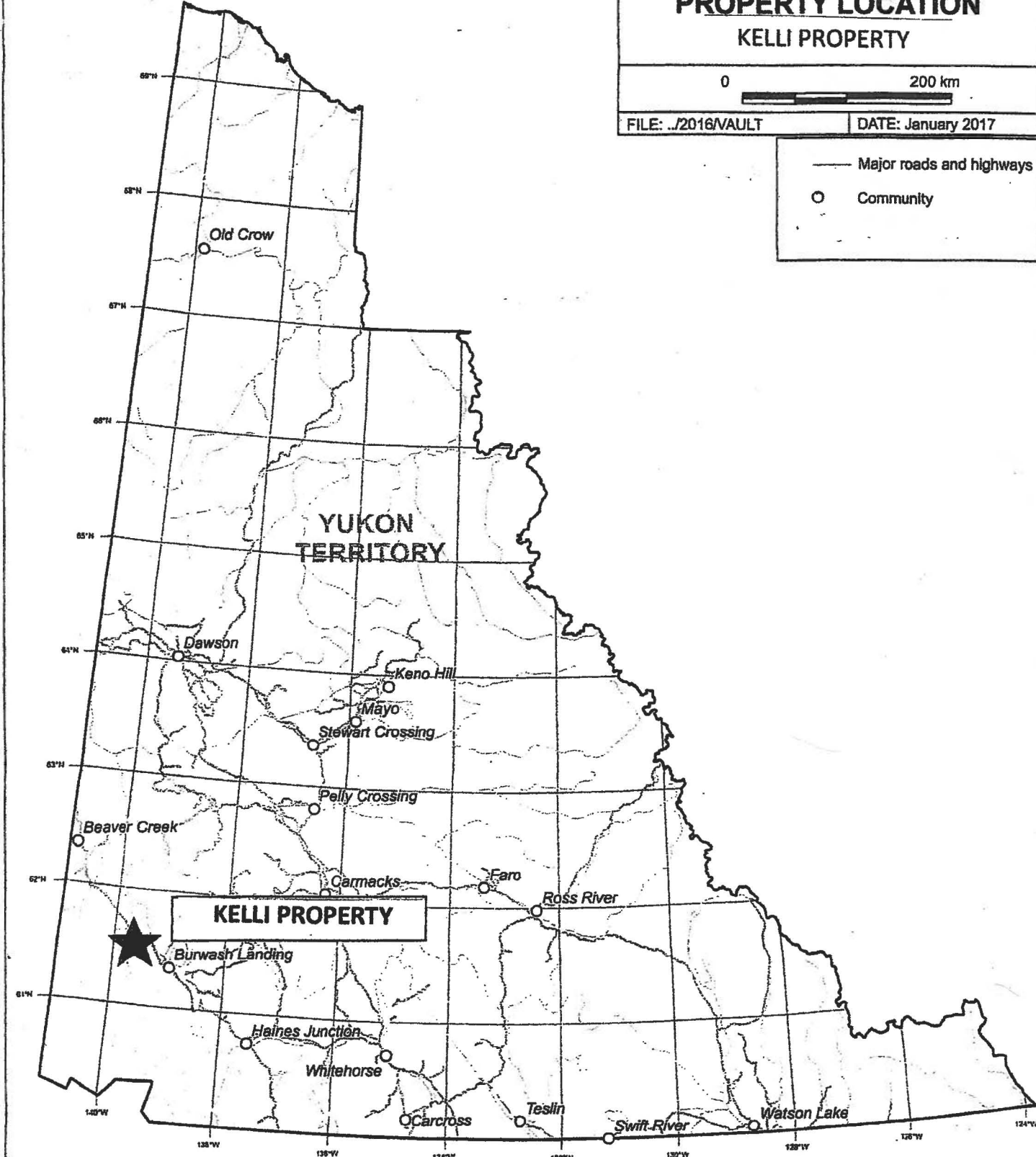
**KELLI PROPERTY**

0 200 km

FILE: ..2016\VAULT

DATE: January 2017

- Major roads and highways
- Community



## LOCATION

The Reed-Kelli Creek Placer Claim Group #GW01054 (the “Kelli Placer Group”) is located in the southwest Yukon Territory on the northeast facing slope of the Kluane Range. The Kelli Placer Group covers a northerly flowing tributary of Reed Creek that continues westerly along the south edge of the Kluane Range that borders the north-easterly trending Shakwak Trench. Over a distance of 7 km Reed Creek joins the Donjek River, a major 3 km wide, northerly flowing, braided glacial river. The Kelli Placer Group is within the Kluane Game Sanctuary that is a buffer wildlife protected area between the Kluane National Park to the southeast and the Alaska Highway to the north. The Kelli Placer Group is located on NTS Map 115G/12. The centre of the Kelli Placer Group is approximately at UTM Coordinate 682400 N / 573000 E Zone 7, NAD 83.

## PHYSIOGRAPHY

The Kelli Placer Group is centred on a north-northeasterly flowing tributary of Reed Creek (Reed-Kelli Creek) that starts at the north boundary of the Kelli Quartz claim Group (*Fig. 1*) at an elevation of 2,600 feet (792 m). The placer claims start upstream 2 kilometres at the Terry 4 Quartz claim at an elevation of 2,925 feet (892 m). The most southerly claim is the Kelli 9 covering the Reed-Kelli Creek Forks at an elevation of 4,100 feet (1,250 m). The camp and helicopter pad are located on the stream outwash boulder-gravel fan at an elevation of 3,083 feet (940 m). From the camp going upstream it is 420 m to the start of the Lower Canyon. From the outlet of the canyon the stream gradient increases from +6° to +15° over a distance of 800 m to the upstream end of the Upper Canyon (Map 1). From the south end of the very steep walled (+20° to +45°) stream canyon the valley widens and the stream gradient increases to +5° to +7° over the next 1 km to the south boundary of the Kelli Placer Group. The stream valley is bounded by northerly trending ridges that reach an elevation of 5,500 ft. (1,675 m). The Kelli 1 to 9 placer claims cover the area on Kelli Creek from the south end of the Upper Canyon to the Forks, a distance of 1.4 kilometres.

From the Lower to the Upper Canyon the stream occupies a distinct steep walled “V” shaped valley that has not been subjected to glaciations. Upstream from the Upper Canyon the valley widens and at the forks, there is thick section of glacial outwash, poorly sorted cobble boulder till on both sides of the creek. The entire area would have been covered by glacial ice during the last ice age and glacial till has been reported along the top of the canyon wall. The present shape of the Shakwak Trench has been formed by glaciations resulting in a series of north-westerly trending features such as the elongate lakes and drainage pattern in the Shakwak Trench. This period of glaciations would also have truncated the northerly trending “V” shaped valleys along the northeasterly facing Kluane Range in the general Kelli Placer Group area.

Vegetation in the Kelli Placer Group area is controlled primarily by elevation and by permafrost. In the permafrost areas at lower elevations along the Shakwak Trench stunted black spruce predominates. As one goes up the stream valley to the camp along the outwash fan there are tall spruce reaching 0.6 m in diameter that are commonly indicative of thawed ground. Both sides of the fan are bordered by muskeg with thick moss and stunted black spruce indicating permafrost. Going up the creek through the Lower to Upper Canyons, if the walls are not steep with barren outcrop and active talus, the slopes are covered by almost impenetrable alder. Alder continues to

predominate on both sides of the valley to an elevation of 3,800 ft (1,158 m) to 4,000 ft (1,220 m) and is replaced by willow and scattered stands of stunted black spruce. At the 4,500 ft (1,370 m) elevation scattered willow and grass forms a classic alpine environment.

## **CLIMATE**

The climate of the Kelli Placer Group area is affected by three dominant physiographic features. To the west lies the St. Elias Mountains occupied in part by the largest non-polar continental ice field in the world with elevations ranging up to (Mt. Logan) 5,959 m (19,550 ft). The Kelli Placer Group area is located on the east flank (lee side) of this mountain range and is protected from the direct effect of the coastal weather. However, coastal weather can reach the Kelli Placer Group area by the Chatham Strait in Alaska and continuing northwestward along the low lying valleys that occupy the Denali Fault/Shakwak Trench and continuing into Alaska. In turn this long lineament can funnel northern storms southeastward into the Reed Creek – Kluane Lake area. The narrow Shakwak Trench is bordered to the northeast in the Kluane Lake area by the Ruby Range and the Yukon Plateau highlands, a dry climatic belt with record setting low temperatures (Snag) in the winter.

The climatic data for the Kluane Lake – Reed Creek area is based on information from the Environment Canada Weather Station at Burwash Landing.

### **Temperature**

The daily average temperature for the coldest month, December, is -19.8°C and the warmest month, July, is 12.8°C. The extreme maximum was recorded in June, 1969 at +31.7°C and the extreme minimum was at -55°C recorded in 1968.

### **Precipitation**

During the 2016 through 2018 exploration program the weather was very good for carrying out the field work with little rain and no frost. This was a marked improvement over 2015.

The total average rainfall is 19 cm falling between May and September. The extreme daily rainfall was 3.84 cm in 1968. The maximum average snow depth for February is 18 cm. The extreme snow depth was 104 cm in 1967.

Burwash Landing is at an elevation of 807 m (2,647 ft) and the Kelli Placer Group has an elevation ranging from 1,067 m (3,500 ft) to 1,372 m (4,500 ft). The higher elevation will result in a moderate lower average temperature and a higher average level of precipitation than Burwash Landing.

## **2019 Weather Conditions**

The weather conditions can have a profound effect on the Kelli Exploration Program. Access to the property across the Shakwak Trench from Highway 1 was difficult when the writer went in to the camp on June 24, 2019. The standing water in the Trench was surprisingly high – the ATV got stuck twice in very ‘soft-mud’ conditions. This was

probably a result of melting permafrost from a very warm spring and a winter with low snowfall. Going in to the camp from Reed Creek for the first time in ten years there were numerous large spruce trees that had fallen across the road, blown down by strong winds. In addition there was no winter glaciation of the Lower canyon and Kelli Creek from 826000 N ran underground.

During the period of the exploration program there were severe wind and torrential rain storms. One such storm resulted in a large rock slide across the Middle Canyon road. This was the first slide of any consequence over the past 10 years of exploration. Fortunately, the rain storm did not result in a 'flash flood' such as the one in 2013 that destroyed a section of the road between the camp and Reed Creek.

## ACCESS

The general Kelli Placer Group area via the paved Alaska Highway is 340 km west from Whitehorse, or 170 km from Haines Junction, the local service centre. From the Alaska Highway looking due south the camp on the Kelli Placer Group is visible over a distance of 7 km. The start of the winter haul road and the summer ATV trail leaves the Alaska Highway at UTM coordinate 580651 E / 6830392 N and goes south-easterly for a distance of 10 km crossing the Shakwak Trench through continuous swamp, bypassing a number of small lakes and crossing 3 small streams to reach the start of the trail on the gravel fan leading to the camp. An Argo and ATV can make the trip to the camp from the Alaska Highway in two to three hours (Figure 2).

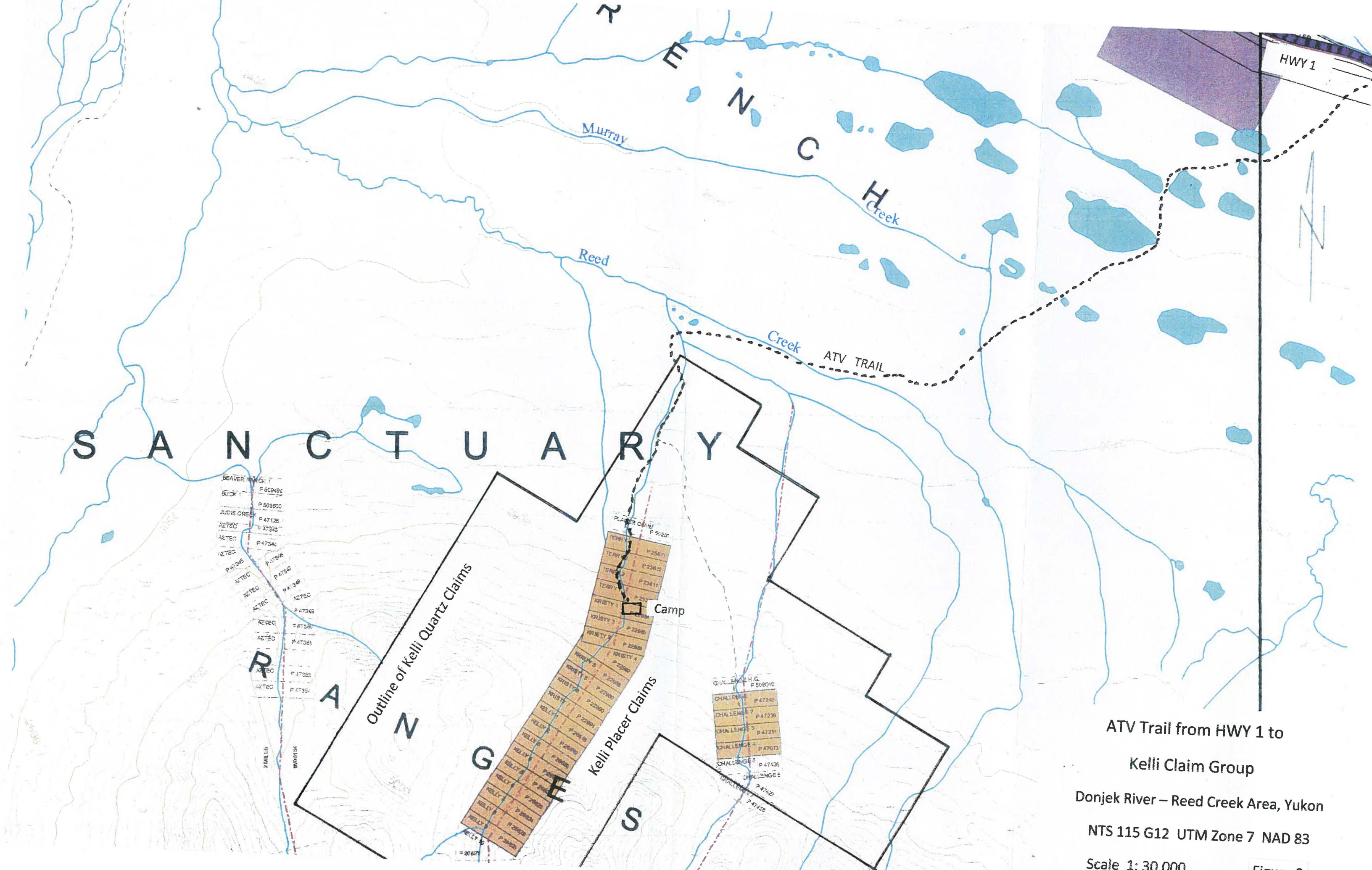
From the camp upstream to the mouth of the Lower Canyon the road is in good condition and is accessible by ATV to the Forks where it crosses the creek and extends to the south end of the Kelli Quartz Claims. There are a few small washouts and talus slides but the base of the road is in good condition.

The construction of the road up the canyons was a remarkable achievement undertaken by Darrel Duensing. A D9H bulldozer was used to push large (up to 3 m diameter) round granite boulders in a row to form the outer base wall of the road. A front-end loader then carried tailings from the sluice plant to fill behind the boulders and the canyon wall. Since 1986, when upstream mining ceased, there have been numerous flash floods through the narrow canyon but regardless the road has remained intact. The bigger program with road access through the canyon is the continuous down slope migration of talus across the road. The talus has been removed by the D8 bulldozer on site and the road has been re-opened to beyond the Forks. As previously discussed under Climate, there was a major rock slide across the road in 2019. This slide was cleared by the D8 bulldozer.

Helicopter service is available from Haines Junction with a suitable staging area on the Alaska Highway at Mile 1118. There is a good helicopter pad at the campsite.

## CLAIMS

The claim names and expiry dates are under Appendix B. The outlines of the claims are shown on Figure 2 and in more detail on Figure 3. The claims are 100% owned by Kelli-Reed Cree Resources Ltd.



S A N C T U A R Y

Outline of Kelli Quartz Claims

Kelli Placer Claims

BEAVER HATCH T P 609486  
 BUCK T P 609600  
 JUDIE CREEK P 47126  
 AZTEC P 47345  
 AZTEC P 47546  
 P 47946 P 47946  
 AZTEC P 47348  
 AZTEC P 47349  
 AZTEC P 47351  
 AZTEC P 47352  
 AZTEC P 47353

TERRY P 25671  
 TERRY P 23802  
 TERRY P 23411  
 TERRY P 231  
 KRISTY 1 P 22845  
 KRISTY 2 P 22846  
 KRISTY 3 P 22847  
 KRISTY 4 P 22848  
 KRISTY 5 P 22849  
 KRISTY 6 P 22850  
 KRISTY 7 P 22851  
 KRISTY 8 P 22852  
 KRISTY 9 P 22853  
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 KRISTY 152 P 22996  
 KRISTY 153 P 22997  
 KRISTY 154 P 22998  
 KRISTY 155 P 22999  
 KRISTY 156 P 23000

CHALLENGE H.C. P 608040  
 CHALLENGE P 47240  
 CHALLENGE 7 P 47239  
 CHALLENGE 5 P 47251  
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 CHALLENGE 8 P 47427  
 CHALLENGE 9 P 47428

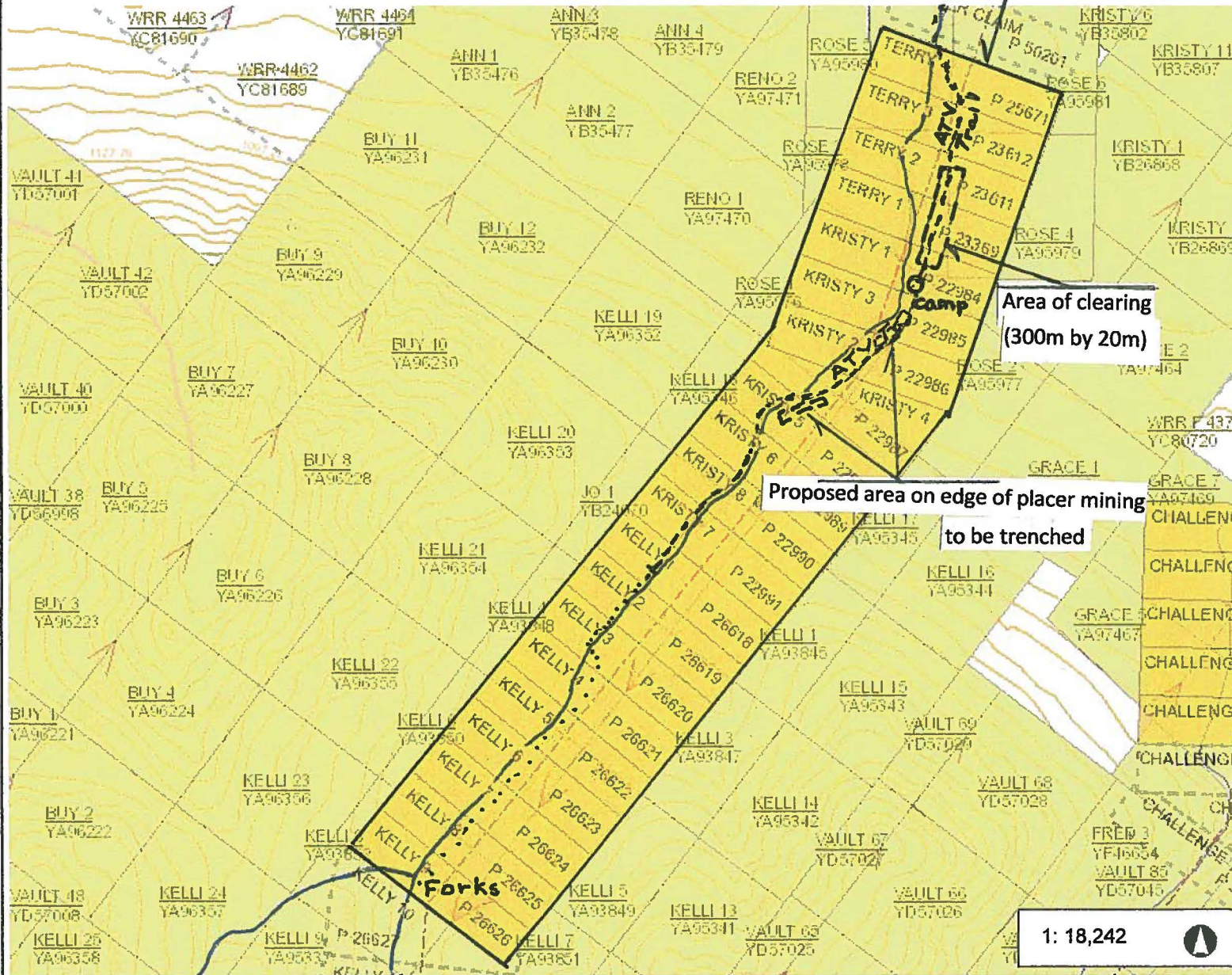
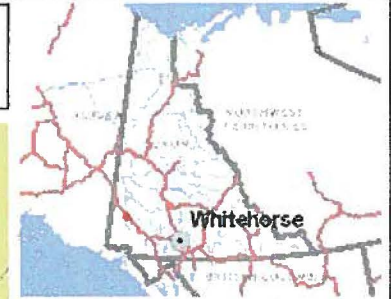
ATV Trail from HWY 1 to  
 Kelli Claim Group

Donjek River – Reed Creek Area, Yukon

NTS 115 G12 UTM Zone 7 NAD 83

Scale 1: 30,000

Figure 2



**Legend**

- New Placer Claims
- Placer Claims (50K)**
  - Active and Pending
  - Expired
- Prospecting Leases**
  - Active and Pending
  - Expired
- Adjoin Placer
- Placer Mining Land Use Permi**
  - Class 3
  - Class 4
- Placer Baselines (unsurveyed)
- Placer Baselines (surveyed)
- New Quartz Claims
- Quartz Claims (50K)**
  - Active and Pending
  - Expired
- Quartz Leases (50K)
- Adjoin Quartz
- Quartz Mining Land Use Perm**
  - Class 3
  - Class 4
- Quartz Staking Direction
- Surveyed Mineral Claims
- Placer Stream Classification**
  - Water Quality
  - Freshwater Fisheries Production Zc

1: 18,242



0.9 0 0.46 0.9 Kilometers

**Notes**

**Figure 3**

## HISTORY

The history of the property has been reviewed in detail in the 2012 Geological Report by the writer.

The Kelli Claim Group covering the northerly flowing tributary of Reed Creek is reported by Trevor Bremner, Ministry of Mines, Geologist in Yukon Exploration 1990 (INAC 1991, p 60-64) to have been placer mined between 1935 and 1939. Between 1983 and 1988 Dublin Gulch Placers, headed by Darrel Duensing, placer mined the creek and reported production of 1,275 oz of gold. Darrel Duensing also estimated production of 725 oz of gold for the 1935 to 1939 period.

Dr. Jennifer Getsinger in her report on the Kelli Property, October 1998 detailed under History, information provided by the late Larry Tremblay. Mr. Tremblay was a biologist who worked for Parks Canada and was based at Haines Junction. During his tenure with Parks Canada he became very familiar with the Kluane National Park and the people who lived and worked in the southwest Yukon Territory. Mr. Tremblay's overview of the local history in the Kluane Range was recorded by Dr. Getsinger and is outlined in the 2019 Application for YMEP funding and will not be repeated in this report.

## REGIONAL GEOLOGY

The Kluane Range forms the northeast margin of the St. Elias Mountains that border the southwestern edge of the Coast Belt. They are within the northern extension of the Insular Belt in the southwestern Yukon Territory and are largely to the southwest of the Denali Fault System. The St. Elias Mountains are predominantly underlain by Alexander Terrane consisting of a thick sequence of mainly layered Paleozoic strata. During the late Triassic there was widespread metamorphism and deformation. The property area is located within a Wrangalia segment (WZ) between Alexander Terrane and the Denali Fault. The segment (WZ) may have been moved northeast of the Alexander Terrane by large dextral displacements along the Denali Fault (Campbell and Dodds, 1983). In the Kelli Placer Group area the Denali Fault occupies the Shakwak Trench. The Wrangalia Terrane to the southwest of the Shakwak Trench in the Quill Creek – Donjek River area has been intruded by granitic to ultramafic bodies. The best known ultramafic intrusion in this area is the Quill Creek complex of Cretaceous age that hosts a nickel-copper massive sulfide deposit with PGE values.

In the Kelli Placer Group area of the Kluane Range the predominant rocks are Permian Pennsylvanian andesites covered by shales and thin bedded limestone. These units are repeated by a complex series of faults. Oligocene dikes in the area have been sheared indicating that the faulting is Tertiary or younger (T. Bremner, 1990).

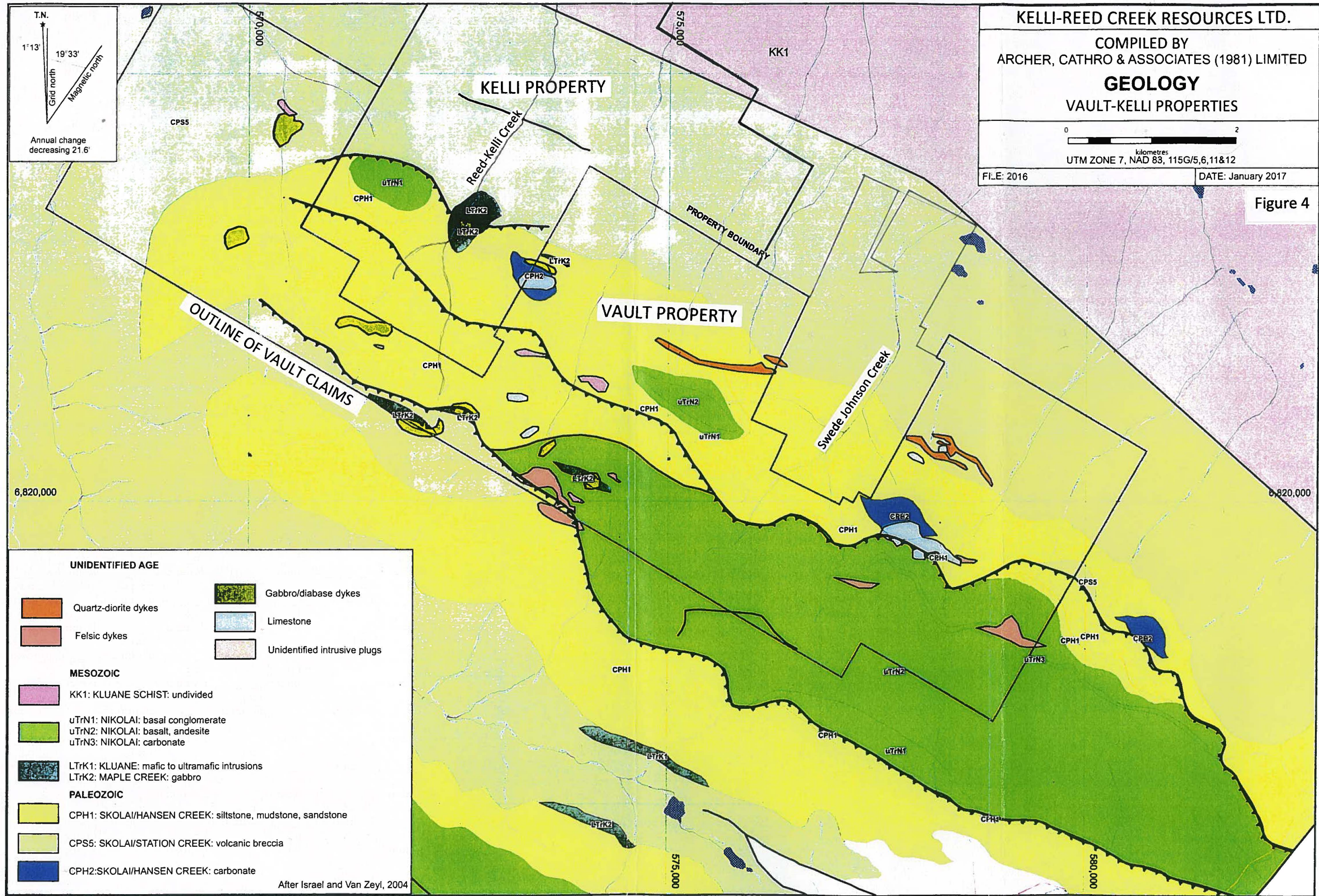
**GEOLOGY**  
VAULT-KELLI PROPERTIES

0 2  
kilometres  
UTM ZONE 7, NAD 83, 115G/5,6,11&12

FILE: 2016

DATE: January 2017

Figure 4



**UNIDENTIFIED AGE**

- Quartz-diorite dykes
- Felsic dykes
- Gabbro/diabase dykes
- Limestone
- Unidentified intrusive plugs

**MESOZOIC**

- KK1: KLUANE SCHIST: undivided
- uTrN1: NIKOLAI: basal conglomerate
- uTrN2: NIKOLAI: basalt, andesite
- uTrN3: NIKOLAI: carbonate
- LTrK1: KLUANE: mafic to ultramafic intrusions
- LTrK2: MAPLE CREEK: gabbro

**PALEOZOIC**

- CPH1: SKOLAI/HANSEN CREEK: siltstone, mudstone, sandstone
- CPS5: SKOLAI/STATION CREEK: volcanic breccia
- CPH2: SKOLAI/HANSEN CREEK: carbonate

After Israel and Van Zeyl, 2004

## PROPERTY GEOLOGY

The following is a brief summary of the property geology.

### Stratigraphy

The layered rocks exposed from the camp area upstream to the Middle Canyon (Geology Map 1 1:1000, 2013) are divided into four units designated **pc** (phyllitic carbonate), **gs** (greenstone/meta volcanic), **gs (fp)** (subvolcanic greenstone and/or an intrusive feldspar porphyry), and **bgpl** (black graphitic phyllite with interbedded limestone). These units have been interpreted as being Pennsylvanian to Permian in age and part of the Skolai Group. The writer divided the **gs** unit into **gs** and **gs(fp)** to differentiate the marked contrast between the two units:

**gs** dark brown andesite often foliated to a chloritic schist, highly fractured with pyrite content from 1% to 10%, pyrrhotite trace to 1% and magnetite 1%. Widely spaced, flat pyritic quartz veins of variable width cut across the unit.

**gs(fp)** grey, possibly subvolcanic fine-grained to porphyritic andesite or intrusive with blocky, coarse fracturing with pyrite, less than 1%.

The **bgpl** unit is the principal unit downstream from the Lower Canyon to the campsite.

### Intrusive Rocks

The layered rocks are intruded by dikes and sills of Oligocene to Miocene age (date of 23 Ma, ref. Bremner, 1991). Both Getsinger and Bremner agree that this intrusive is a feldspar hornblende porphyry. The writer mapped the intrusives as two separate rock types.

**dd** light orange weathering dacite dike, fine grained to aphanitic with an absence of porphyritic texture. In the fresh, fine grained dacite crystalline hornblende “blades” make up 1% to 2% of the ground mass

**fp** light grey subhedral medium grained feldspar phenocrysts in an aphanitic to fine grained feldspar rich ground mass

### Structure

The regional structure within the Kluane Range is northwest trending subparallel to the Denali Fault/Shakwak Trench. The deformation folds are F1 structures, often overturned subparallel to the regional northwest structure. The F1 structures are in turn modified by secondary crenulations, drag folding, fractures, veins, joints and warping.

A good example of deformation and associated regional metamorphism referred to as F1 folding is defined by subhorizontal mullion structures in phyllitic carbonate rocks located to the west of the “Old Timers’ Workings C” at

the sound end of the Upper Canyon. These F1 folds exposed in outcrop in the creek appear to have been uplifted along the creek axis resulting in closely spaced, narrow north-northwest fractures commonly filled by white carbonate minerals. The narrow, irregular dacite dikes in the creek have also followed this axis. In addition, the uplift along the creek axis created a zone of structural-erosional weakness that is important in the formation of the creek 'V' shaped valley. (There is no obvious fault/shear zone structure related to the creek axis.) This fracturing along this north-northeast axis may also account for the trend of the dacite dikes intruding the **gs(fp)** unit in the Middle Canyon. This north-northeast trend is almost at right angles to the northwest strike of the dacite dike swarm in the Lower Canyon that parallels the regional northwesterly trend of the Denali Fault.

Dr. Getsinger suggests that the stratigraphic package underlying the Kelli Property lies within the upper limb of a large recumbent fold. This interpretation would result in the stratigraphy being reversed from the norm with the youngest rocks (**bgpl**) in the Lower Canyon and the older rocks (**pc**) being in the Upper Canyon. However, these rocks are so interfolded and structurally complex that this interpretation can only be considered speculative until a more detailed study is undertaken.

Fault contacts are used somewhat liberally as there were no actual offsets noted. Erosional zones of weakness, such as sharp gullies in most cases, indicate shearing and a possible fault but offsets within the Reed-Kelli Creek Canyon were not noted. In units that have been intensely folded there are numerous examples of brecciation of the more brittle units such as dacite dikes and quartz veins.

There are two structural features that were noted by Dr. Getsinger and are shown on Figure 4 as Structure 1 and Structure 2. Structure 1 was also reviewed in considerable detail by Larry Tremblay in his reports on the Kelli Property

Structure 1 is the northwesterly trending swarm of dacite dikes intruding graphitic argillaceous schist intercalated with limestone beds and meta-volcanics in the Lower Canyon. This structure was considered by Larry Tremblay to be very favourable geology for gold mineralization and the 2004 drilling program was carried out to test this section.

Structure 1 forms a sharp bend in the creek which is referred to as a "kink" by Tremblay. What is of particular significance is the repetition of this "kink" in creek valleys both to the northwest and southeast of Reed-Kelli Creek in approximately the same location along the north flank of the Kluane Range. In addition, placer gold has been found in these creeks in the proximity of the "kink" structure.

Structure 2 is defined by two tributary stream channels that enter Reed-Kelli Creek at the south end of the Upper Canyon. They define a prominent lineament that can be easily traced on the 1:50,000 topographic map and air photographs. The structure crosses the creek in the outcrop area of highly lineated fold noses with a classic mullion structure. There is evidence of the fault structure crossing the creek (Dr. Steve Isreal, verbal 2018).

Dr. Getsinger infers that the structure may be a hinge zone of large scale regional fold. Since there is no obvious fault gouge the topographic expression may result may result from the weathering of the erosionally weak

phyllitic carbonate. This structure also marks the south end (upstream) of the Reed-Kelli Creek canyon and the continuation of a much broader and lower gradient creek valley.

### **Metamorphism**

From the mapping program and examination of hand specimens the metamorphism extends to the development of sericite and chlorite indicating lower green schist facies.

Although there are numerous intrusive dike contacts metamorphism is very limited to hornfels with minor epidote.

Regional metamorphism is earlier than the quartz veins cutting the meta-volcanics and is also earlier than the intrusion of the feldspar porphyry and dacite dikes.

There is a host of metamorphic rock types ranging from black graphitic phyllite, interbedded with the massive impure marble, meta-volcanic chlorite schist and limey black graphitic schist all in the Lower Canyon. Thin, discontinuous quartz veining is a common byproduct of the intense "squeezing" of the graphitic phyllite in the Lower Canyon and continuing to the north in outcrop bordering the outwash gravel fan.

### **2015 PAN SAMPLING EXPLORATION PROGRAM**

The 2015 Placer-Surficial Geological Program was carried out after a geological mapping, rock, soil and silt sampling program that focused on the Middle Canyon of Reed-Kelli Creek. The focus of the placer-surficial geological mapping program was on the Kelli 1 to 9 placer claims that cover the area between the Upper Canyon and the Forks. The field work was a careful search for historic workings within the stream channel. This work would have been done during the 1980s consisting primarily of bulldozer trenches attempting to reach bedrock and evaluate the placer gold concentrated on the bedrock-gravel interface. These bulldozer trenches are located on Larry Tremblay's map. However, the locations were not surveyed by GPS making it difficult to pinpoint the sites. The bigger problem is the flash floods that quickly erode the trenched material and filled the pits. The results of the 2015 program are detailed in the 2015 Surficial Geology and Pan Sampling Report dated June 10, 2016.

### **SUMMARY REVIEW OF PLACER EXPLORATION PROGRAMS 2015 AND 2016**

#### **2016 Placer Exploration Program**

##### **Bulldozer Trenching and Sampling**

The 2016 program consisted of two bulldozer trenches dug to expose the bedrock-gravel contact along the edge of the 1980's placer mining cuts. The trenching was carried out just downstream from the outlet of the Lower Canyon. It was reported that the gold content of the gravels mined in this area were particularly high grade. Numerous pan samples taken by the writer had been processed from this area but the results were negative with regards to 'high grade' values with only an indication of a few small trace to #3 gold particles per pan.



**Photo 1: On site sampling unit at Right Limit Trench**

**Photo 2: Fred Erler holding pan with Sample I concentrate, Right Limit Trench**





Photo 3: 2019 new sluice set up in Trench 3. Note oversize tailing pile

The bulldozer trenches are shown on Map 3 1:500. The Left Limit Trench was 80 m long and the Right Limit Trench was 20 m long.

### Sampling Method

The samples were collected from the bedrock-gravel interface where most of the placer gold is concentrated. The samples were processed in a small sluice ('long-tom') measuring 15 inches (.38 m) wide by 30 inches (0.76 m) long with a feed-screen hopper (Photo 1and2). In 2019 a larger sample sluice was brought in to the property and found to be very efficient in processing larger samples and in the recovery of gold (Photo 3). A 1.5 inch pump with a screened intake provided the water to wash the sample over the expanded metal riffles. The high specific gravity minerals and gold are captured on a very fine ribbed mat in the small sluice and a Herculean mesh mat in the larger sluice. The mat is then washed in a tub and the material panned to produce a high specific gravity mineral-gold concentrate (Photo 2). This product is then dried and bagged and taken out to a lab were the gold is separated and weighed.

### Sample Results

<b>2016 Right Limit Bulldozer Trench</b>						
<b>Sample</b>	<b>Bedrock Area</b>	<b>Volume</b>	<b>Crude Gold Weight</b>	<b>83% Fine Gold</b>	<b>Gold Grade per ft<sup>2</sup></b>	<b>Gold - \$60/c value per ft<sup>2</sup></b>
1	8 ft <sup>2</sup> (0.74 m <sup>2</sup> )	0.59 yd <sup>3</sup> (0.45 m <sup>3</sup> )	6 g	4.98 g	0.62 g	\$37.00
coarse subrounded gold nuggets, medium grained #2 small to #1, very little fine grained gold, large amount of black mineral concentrate						
2	16 ft <sup>2</sup> (1.48 m <sup>2</sup> )	32 yd <sup>3</sup> (1.18 m <sup>3</sup> )	2.29 g	1.90 g	0.12 g	\$7.00
gold not as coarse as sample 1						
3	16 ft <sup>2</sup> (1.48 m <sup>2</sup> )	1.18 yd <sup>3</sup> (0.91 m <sup>3</sup> )	4.19 g	3.48 g	0.22 g	\$13.20
coarse gold with a little fine gold, one piece of native copper						
4	16 ft <sup>2</sup> (1.48 m <sup>2</sup> )	1.18 yd <sup>3</sup> (0.91 m <sup>3</sup> )	0.9 g	0.67 g	0.04 g	\$2.40
5	22 ft <sup>2</sup> (2 m <sup>2</sup> )	1.18 yd <sup>3</sup> (0.91 m <sup>3</sup> )	1.5 g	1.25 g	0.069 g	\$3.60
coarse hackley gold, little fine gold, large amount of black sand						
6	12 ft <sup>2</sup> (1.1 m <sup>2</sup> )	0.67 yd <sup>3</sup> (0.51 m <sup>3</sup> )	0.73 g	0.61 g	0.05 g	\$3.05
1 coarse nugget weighed 0.66 g, 1 small flake, no fine gold						
7	27 ft <sup>2</sup> (2.51 m <sup>2</sup> )	0.40 yd <sup>3</sup> (0.31 m <sup>3</sup> )	0.10 g	0.083 g	0.003 g	\$0.18
3 small flakes, very little black sand						
<b>Average grade/sq.ft. = 0.159 g at \$60/gram=\$9.54/sq.ft.</b>						

# LOWER CANYON

## KELLI CLAIM GROUP

Whitehorse Mining Division  
Donjek River - Reed Creek Area  
YUKON

1980's Placer Mined Area North of Lower Canyon  
Location of 2019 Trenching and Placer Sampling

Figure 5

Map Projection: UTM Zone 7  
Datum: NAD 83

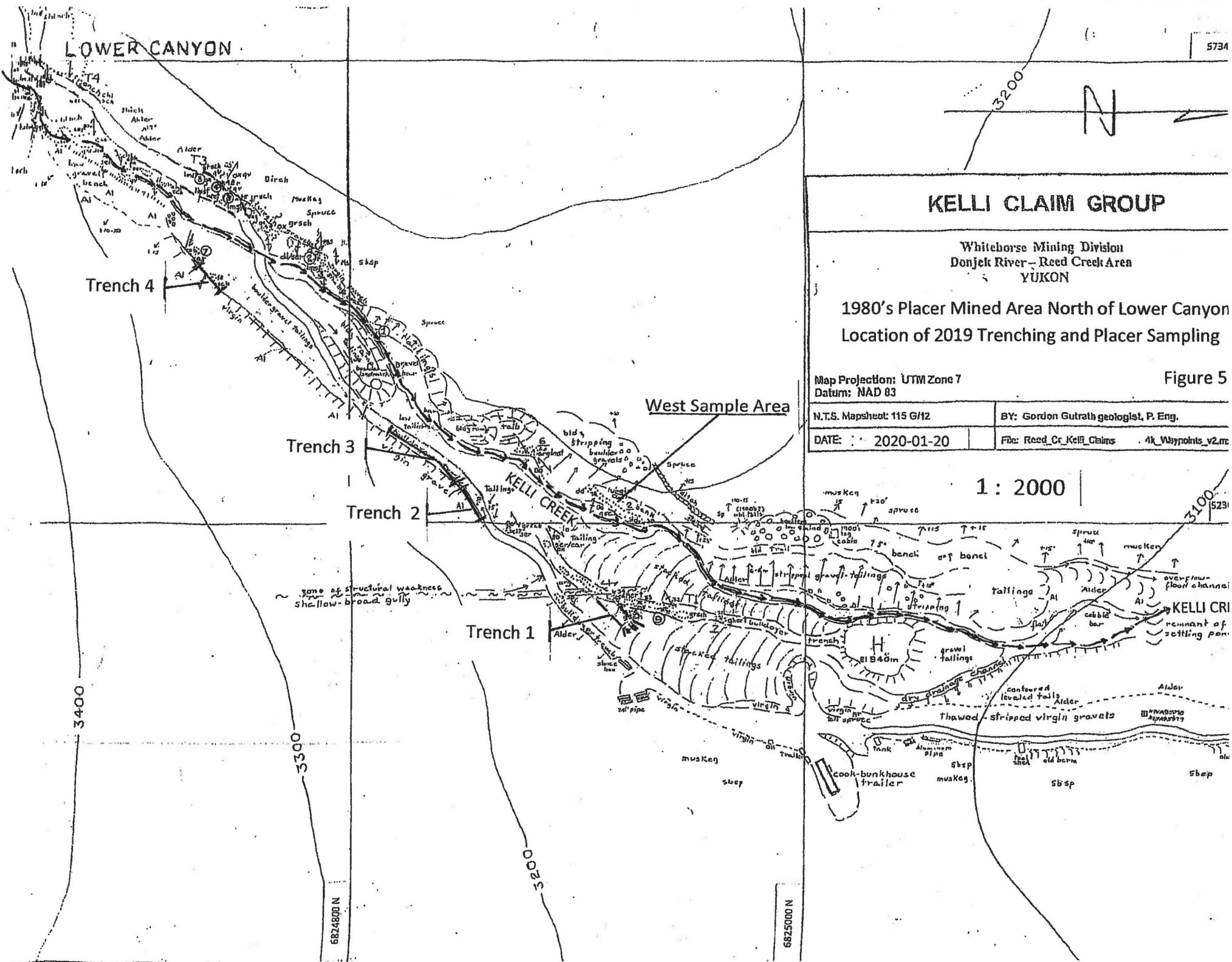
N.T.S. Mapsheet: 115 G/12

BY: Gordon Guttrath geologist, P. Eng.

DATE: 2020-01-20

File: Reed\_Cr\_Kelli\_Claims . 4k\_Vhypoits\_v2.m

1 : 2000



## 2017 NO PLACER SAMPLING

## 2018 PLACER EXPLORATION PROGRAM

This sample was important to determine if the placer gold extended downstream from the 2016 sample area. It is located 120 m downstream to the north of the 2016 sample area.

<b>Bedrock Area</b>	<b>Volume</b>	<b>Crude Gold Weight</b>	<b>83% Fine Gold</b>	<b>Gold Grade per ft<sup>2</sup></b>	<b>Gold - \$60/c value per ft<sup>2</sup></b>
23 ft <sup>2</sup> (2.15 m <sup>2</sup> )	1.27 yd <sup>3</sup> (0.98 m <sup>3</sup> )	154 g	1.28 g	0.06 g	\$3.60
1 coarse rounded nugget					

## Anecdotal Information

In 2018 Glen Smith reported that he and his brother, in the 1980s during the Tremblay operation, shoveled approximately 7 cubic yards from a backhoe pit through a 'long-tom' sample sluice. They recovered 57 grams of crude gold with one-half of it 'coarse gold' including one 17 gram nugget. The approximately sample location is shown on Map 3, 1:500 as 'Glen' and is in the area of the 2018 Trench 1.

## 2019 PLACER EXPLORATION PROGRAM

The placer sampling trench numbers have been changed from 2018. Trenches 1 to 4 are numbered from north to south and are shown on Map 3, 1:500.

### Trench 1 Centred on UTM Coordinates 573640 E/6824928 N

The 2018 rock sample taken from this trench assayed 25.6 grams gold. The sample reject was examined for placer gold but the visible gold under 60x magnification was not considered placer gold.

On June 24, 2019 the writer examined the Trench 1 area and found that the overlying placer tailing had sloughed across the 2018 sampled face of the trench, so the original sample locations could not be examined.

One small sample from the original outcrop area was dug out near the centre of the trench and sampled. Sample #19-1 was soft black graphitic schist with 20% interlayered quartz veinlets (analysis 0.005 ppm gold).

Two other samples were from outcrop exposed in the bulldozer trench-drain on the west side of Trench 1. There was a concern that these samples may be contaminated with placer gold so they were weighed and dried before being bagged.

Sample #19-2: angular siliceous grey cherty bedrock with 1% - 3% fine pyrite (analysis: 0.005 ppm gold)



Photo 4: Trench 1 2019. Cleaning sample from sluice. On left is trench-bedrock face prepared for sampling. Looking south-upstream.to Lower Canyon



Photo 5: D8 attempting to deepen trench-drain going to helicopter pad

Sample #19-3: quartz veining directly west of Trench 1. The quartz was yellow stained on fracture surface with 5% - 8% fine grained pyrite in 'clots' and veinlets coating the fractures (analysis: 0.01 ppm gold)

In 2019 the bulldozer trenched the area cutting back the 2018 Trench 1 face an approximate 1 m to 2 m. the writer and Fred Erler then cleared the face of loose material by hand and washed off the mud and residual gravel tailings. This was in preparation for the Archer, Cathro & Associates (1981) Limited ('Archer Cathro') crew to sample the rock face. Unfortunately, the Archer Cathro crew did not arrive until the end of the Kelli-Reed Creek Resources Ltd. program so the placer sampling of the gravel-bedrock was not carried out. This was done to minimize the risk of placer gold contamination of the underlying bedrock face to be sampled.

The placer sample taken in 2019 was a mix of material that was cleared from the face of the trench with a high proportion of bedrock fragments (Photo 4).

An estimated 0.25 m<sup>3</sup> was processed through the sample sluice recovering 0.2 grams of fine gold. The sample does not reflect the potential grade of the placer gold in this trench area but again confirms the downstream distribution of placer gold.

The 2019 program had planned on having a bulldozer trench to bedrock at the end of the drain at 5733650 E/6825000 N, to the west of the camp and just before the helicopter pad. The drain was bulldozed to bedrock for one half the distance from Trench 1 to the helicopter pad. However, the bedrock then deepens and there were too many boulders for the D8 to follow the bedrock-gravel contact down. Considerable trenching was done at the north end of the drain but again bedrock and the virgin gravel contact could not be exposed for sampling because of deep overlying cobble-boulder sluice tailings. ( Photo 5)

### **Placer Gold Sampling East Side (Right Limit) of Kelli Creek**

#### **Trench 1 North end of 7 m long trench WP198 (573636 E/6824923 N)**

This trench was sampled in 2018 over 7 m (23 ft) and a depth of 1.5 ft (23 ft<sup>2</sup> sampled):

$$\begin{aligned} \text{Fine gold } 1.28 \text{ g over } 23 \text{ ft}^2 &= \underline{0.06/\text{ft}^2} \\ 0.06/\text{ft}^2 @ \$60/\text{gram} &= \underline{\$3.60/\text{ft}^2} \end{aligned}$$

#### **Trench 2 South End of the trench WP195 (573582 E/6824844 N)**

Bedrock is highly foliated graphitic schist 5% - 10% thin discontinuous quartz veinlets. Fine grained pyrite 2% - 3%. Three samples taken on bedrock over 8 m (26 ft), sample depth 1.0 ft equals 26 ft<sup>2</sup>. The combined sample had a large amount of black sand magnetite, black hematite plus red garnet / 10%. ( Photo 7 )

$$\begin{aligned} \text{Coarse gold recovered } 1.45 \text{ grams plus fines } 0.15 \text{ g} &= 160 \text{ grams @ } 83\% \text{ fine equals } 1.33 \text{ g over } 26\text{ft}^2 \\ &= \underline{0.05 \text{ g}/\text{ft}^2} \quad 0.05 \text{ g @ } \$60/\text{g} = \underline{\$3.00/\text{ft}^2} \end{aligned}$$

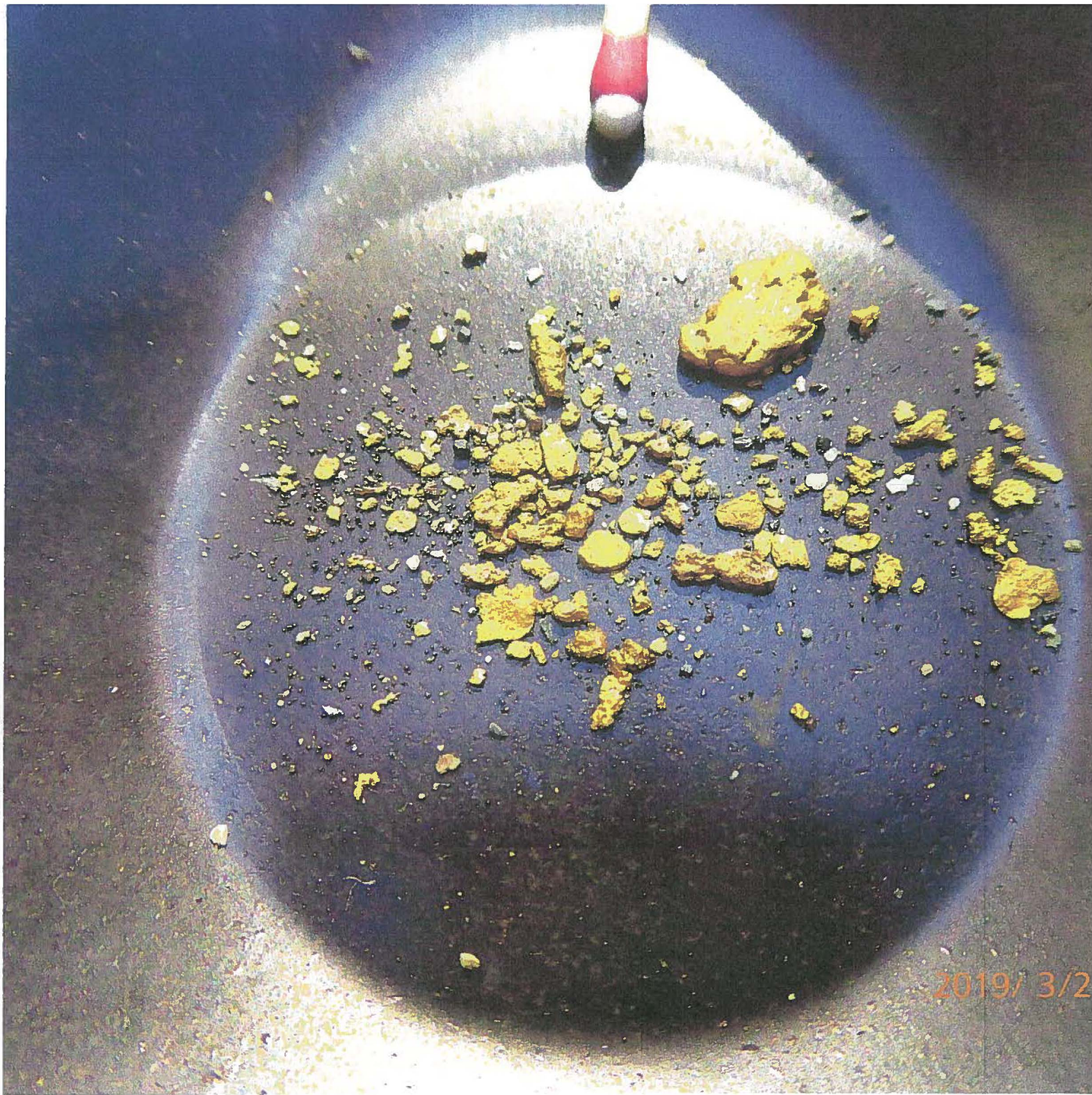


PHOTO 7: Trench 2 , Course and fine gold in weighing pan after separation of black sand concentrate

### Trench 3

Sample 1: WP152 (573567 E/6824819 N) to WP153 (573572 E/6824835 N)

Bedrock is highly sheared graphitic quartz schist, friable, fine grained disseminated pyrite 2% - 5%. Three adjoining sample areas were combined over a length of 10.4 m (34 ft) on bedrock to an average depth of 1 ft to 1.5 ft and over a height of 2 ft to 3 ft.

Combined sample  $2.25 \text{ g @ } 83\% = 1.87 \text{ g}/34\text{ft}^2$   $0.06 \text{ g}/\text{ft}^2 @ \$60/\text{gr} = \underline{\$3.60/\text{ft}^2}$ . This is without a 10.87 g nugget at  $\$60/\text{g} = \underline{\$650/34 \text{ ft}^2}/34 \text{ ft}^2 = \underline{19.18/\text{ft}^2}$  plus  $\underline{\$3.60/\text{ft}^2} = \underline{\$22.78/\text{ft}^2}$ . (Photo 6)

*The addition of the nugget results in a classic 'nugget effect' that increases the sample grade to an unrealistic high level compared with the other samples. Regardless, it is still very positive. For the purpose of preliminary grade calculation  $\underline{\$3.60/\text{ft}^2}$  will be used.*

### Sample 2

This sample is a continuation of Sample 1 to the south centred on QP194 573564 E/6824817 N. Bedrock is similar to Sample 1.

Sample weight  $4.9 \text{ g @ } 83\% = \underline{4.02 \text{ g}}$   
Sample length 14 ft by 1.5 ft width =  $21\text{ft}^2$   
Grams/ $\text{ft}^2 = \underline{0.19 \text{ g}/\text{ft}^2} @ \$60/\text{g} = \underline{\$11.50/\text{ft}^2}$

A sample was taken at the same location as Sample 2 but 1.5 m (4.9 ft) above bedrock and over a length of 8 ft parallel to the bedrock-gravel contact. The gold recovered was very similar in size to the gold in the bedrock sample where the gold is normally concentrated and if consistent throughout the deposit would increase the volume of reserves. The gold weighed  $\underline{0.7\text{g@}83\%} = \underline{0.56\text{g}}$ .

### Trench 4 South end of Sample WP151 (573508 E/6824757 N)

Bedrock is a 'gummy' grey-black graphitic schist (seepage). 3 samples over 8 m (26 ft) depth 1 ft =  $26\text{ft}^2$  equals  $\underline{0.37 \text{ g}/\text{ft}^2} @ \$60/\text{g} = \underline{\$2.22\text{ft}^2}$

*The soft, wet 'gummy' schist (fault-shear zone) made it difficult to get a good sample on the bedrock surface. The sample area has also been disturbed by 1980s bulldozer stripping to the east.*

### Placer Gold Sampling Program West Side of Kelli Creek

The gravel-bedrock contact on the west side is limited to the outcrop area adjacent to the creek between 573586 E and 6824890 N (Photo 8). There is no road access to this side of the creek so the small sample sluice and

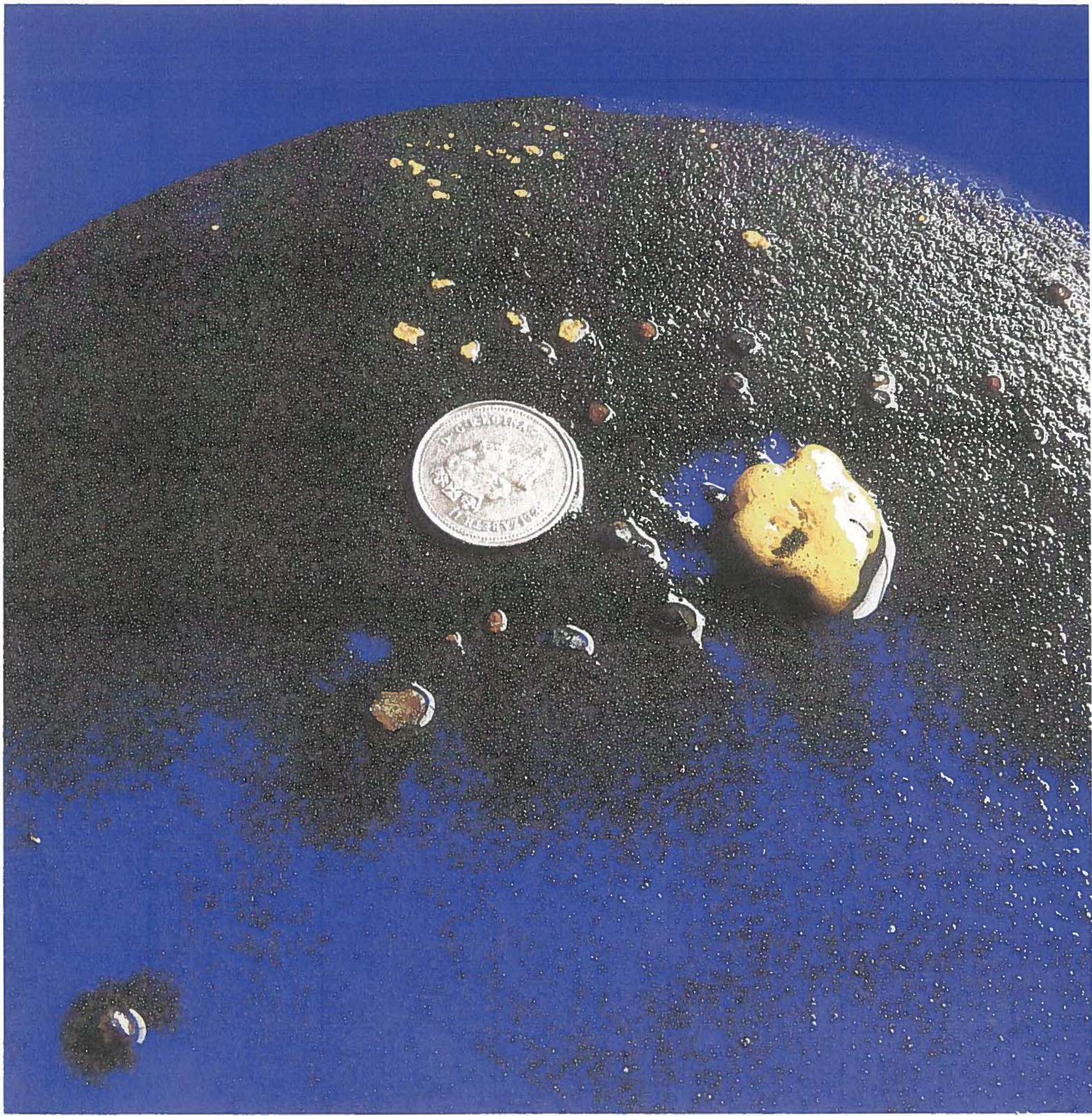


PHOTO 6: Trench 3, hematite ball on lower left, coarse to very fine magnetite black sand, garnet. Scattered fine to medium grained gold particles and the 10.87 gram, rounded nugget (25cent coin)

pump were packed across the stacked tailings piles and the creek to the west side instead of the much heavier (new) sample sluice. (Photo 8)

The bedrock-gravel at the south one-third of the outcrop area is 'high' in the order of 6 to 8 feet (1.8 m to 2.4 m) above the creek level where the sample sluice was set up.

#### **Sample 1 (WP148)**

The sample was 9 ft long (2.74 m) primarily composed of bedrock below the gravels. The bedrock is interlayered intensely sheared friable graphitic schist with competent grey-black chert beds.

#### **Sample 2**

This sample was largely of the bedrock 4 ft (1.21 m) by 1 ft (0.30 m) deep. This sample was checked separately from Sample 1 and only had 5 five gold particles.

#### **Sample 3 (3 sluice samples combined)**

'Tight' cobble boulder gravel above Sample 2 bedrock sample.

The combined weight of gold from Sample 1, 2 and 3 is 0.70 g at 83% fine = 0.58 g over a bedrock area of 9 ft by 1 ft is  $9\text{ft}^2$ .  $0.58\text{ g over }9\text{ft}^2 = \underline{0.62\text{ g/ft}^2}$  @ \$60/g = \$3.87/ft<sup>2</sup>.

#### **Sample Site 2**

##### **Sample 1**

From the end of Sample 3 north the bedrock drops to less than 1 m above creek level. Bedrock is cherty beds interlayered with thin beds of black graphitic schist. The south bedrock section of the outcrop sampled is highly oxidized friable schist with a general trend of 245°/80°S. this is a poor sample largely of graphitic schist bedrock with minimal gravel. The sample is also diluted by mined tailings stacked upslope. Gravel contact sampled is 8 ft long by 1 ft depth =  $8\text{ft}^2$ ,

Recovered gold is 0.20 g with 1 small pale cream-blue coloured elliptical shaped copper nugget 0.20 g at 83% fine gold = 0.17 g over a bedrock area of  $8\text{ft}^2$ .  $0.17\text{ g over }8\text{ft}^2$  is  $0.02/\text{ft}^2$  @ \$60/g = \$1.28/ft<sup>2</sup>.



**PHOTO 8: Outcrop area on the west side (left limit) of Kelli Creek showing small sluce set up for sampling.**

## SUMMARY

### Block 1

Block 1 outlined on Map 3, 1:500 has the best gravel/bedrock face exposure (*Photo 9*) and has been extensively sampled starting in 2016. The sample averages are as follows:

2019 sampling:	0.08 g/ft <sup>2</sup> (without 10.9 g nugget)
2018 sampling	0.06 g/ft <sup>2</sup>
2016 sampling	<u>0.10 g/ft<sup>2</sup></u>
Average	0.10 g/ft <sup>2</sup> @ \$60/g = <u>\$6.00/ft<sup>2</sup></u>

This block has an approximate area of 14,165 m<sup>2</sup> = 152,471 ft<sup>2</sup>. The sampling indicates a potential grade of 0.01 g/ft<sup>2</sup> resulting in 15,247 g (490 oz.) at a price per oz. Cdn\$1,977 (January 14, 2020) equals \$969,120.

This is a very cursory-speculative evaluation of the potential gold content in Block 1. The sample results along the face of the gravels are positive but there is not a sample section across the block to confirm the extent of the gold to the east. GPS surveying has outlined the inferred eastern extent of the gravels by recording the break in slope from +5° to +10° to +15°. The depth of gravels is expected to be in the order of 34 ft. or 11 yd. (10.36 m). The sluice section would be 0.5 yd of bedrock and 1.5 yd of gravel above the bedrock surface with a depth of 8 yd to 9 yd of gravel to be stripped.

It is probable that this area was partially stripped of vegetation-surface muskeg in the 1980s as the secondary growth is primarily alders with muskeg and stunted black spruce to the east.

There is an unusual feature within this block where the bulldozed trail comes down from the end of the stripped tailings piles on the west and crosses a relatively flat area and then climbs again to the south at 573600 E. The area is shown on Map 3, 1:500 as a flat approximately 30 m to 40 m wide and 40 m east-west. The area is also coincident with a broad topographic depression that is believed to be an east-west lineament. The area is covered by thick alder and may represent a section mined in the 1980s but is more likely an area stripped in preparation for mining. It is highly probable that the gravels are thawed and would be a potential area for a backhoe pit sample-section across Block 1.

### Potential Gold Bearing Reserves

The extent of 1980s placer mining north of 6825050 N (north of the helicopter pad) is unknown. It would appear that vegetation and muskeg had been stripped as far north as 6825200. In 2014 Kelli- Reed Creek Resources stripped a section from 6825100 N to 6825250 N (300 m long by an average of 30 m wide). Muskeg and black spruce border this stripped area to the east.



Photo 9: Looking west at the Right Limit face of Block 1 in the area of Trench 3. The foreground has been mined and is made up of low profile stacked tailings. The top of the Block is covered by alders with muskeg and stunted back spruce covering the steeper slope to the east. The faint line along the lower face of the bench, marked by the head of the backhoe is the line of sampling along the contact of the bedrock and the overlying gravels..

## **Block 2**

Block 2 adjoins Block 1 on the east side of the 1980s mined area and extends through the camp area as a 40 m wide section to 6825070 N. It then crosses the Kelli Creek drainage from 90 m (295 ft) to 100 m (328 ft) wide and downstream 150 m (492 ft) to 6825220 N. Total area for Block 2 is in the order of 277,708 ft<sup>2</sup>.

### Comments Block 2

There is a high probability that placer gold extends into this block but it has not been explored. The extent of 1980s mining is believed to end just north of the helicopter pad shown on Map 3, 1:500. The downstream section of the block can be easily explored by backhoe pits as a large portion of the gravels are expected to be thawed. The east side of this gravel area is bordered by flat muskeg and scattered spruce trees. The west side is confined by rising (+10° to +15°) muskeg and open spruce trees. The west side has remnants of historic workings plus 1980s bulldozer tailing piles at the south end of the block.

## **Block 3**

Block 3 is along the west side (left limit) of the valley between 6824900 N and 6825070 N, a distance of 190 (623 ft). The 2019 sampling program explored the exposed gravel-bedrock contact along the southeast edge of the block and the results (Page12) are encouraging. This Block has an area of 5,700 m<sup>2</sup> or 61,354 ft<sup>2</sup>.

The western edge of the block has been defined by elevations rising from 5° to 10°. There is evidence of historic ditching probably used to strip the muskeg by ground sluicing.

### Comments Block 3

There are 1980s stacks of sluiced tailings in the central portion of the block that will add to the cost of mining this section.

There are a number of areas along the east edge of this block where a backhoe could pit sample the bedrock-gravel contact and determine gold content before extensive stripping of tailings and gravel-muskeg overburden.

## **Block 4**

This block is a continuation of Block 3 to the south along the west side (left limit) of the stream channel and 1980s mined area. The entire block is covered by deep stripped gravels and overburden from the 1980s mining that will add to the cost of mining this section.

This block is 110 m (361 ft) long by 20 m (66 ft) wide. The area is 2,200 m or 23,688 ft<sup>2</sup>. There is no sample information regarding this block but considering its location to the outlet of the Lower Canyon and positive sample results along the east (right limit) side it is highly probable to be gold bearing. The adjoining south end of Block 3 where there is exposed bedrock was sampled in 2019 also indicates the block will be gold bearing.



Photo 10: Sample from Left Limit trench at outlet of Lower Canyon showing course hackley gold and black heavy mineral concentrate in metal gold pan



Photo 11: Left Limit Trench where bulldozer has exposed the bedrock- gravel contact. Note how high the bedrock is as it rises rapidly to the west marking the edge of any placer gold reserves

## **Block 5**

This block adjoins Block 4 to the south. It is not covered by 1980s mine tailings and there are a number of bedrock exposures along the east edge of the block to allow sampling. However the potential volume of gravels is small as the side of the valley rises quickly to the west.

The area of Block 5 is 75 m (807 ft) long by 15 m (49 ft) wide for a total of 12,109ft<sup>2</sup>.

This bedrock-gravel contact could be hand-sampled using the sample sluice on site. This sampling would also indicate the potential gold grade of the south end of Block 4.

The next section south along the west side (left limit) has been bulldozer trenched to expose the bedrock and gravel interface. There has only been one small sample taken at the south end of the trench just north of the outlet of the Lower Canyon. The sample was very positive with one coarse hackly 'nugget' and numerous fine to moderate size gold particles. (Photo 10)

The bedrock panel sampling of this bedrock section returned irregular sub-economic gold values.

## **PLACER GOLD POTENTIAL BETWEEN UPPER CANYON AND THE FORKS**

Kelli-Reed Creek Resources Ltd. has carried out limited pan sampling of possible 1980s bulldozer trench piles in the northerly section of this stream channel. Small amounts of fine gold plus 'match head' particles were recovered.

Geochemical soil and silt sampling on the east side of the valley has produced a significant number of gold anomalous values that indicate a possible source of placer gold. Backhoe pit sampling is warranted to determine if this upstream section of Kelli Creek has potential for placer gold reserves.

## **ENVIRONMENTAL CONSIDERATIONS**

Reed-Kelli Creek stream flows have been monitored over the last few years downstream from the potential mineable gravel reserves. This was being done to determine the risk of sediment from a mine operation impacting aquatic habitat in Reed Creek. Flash floods are common in streams flowing from the north flank of the Kluane Range. The upper reaches of Kelli Creek cuts high, steep (+30°) glacial-till banks that during rain storms will add a heavy silt load to the creek. However, the silt load is largely captured by the broad gravel fan before the stream reaches Reed Creek. In addition, during normal stream flows Kelli Creek runs underground.

Regarding fish, the grayling population is largely confined to where Reed Creek enters the east side of the Donjek River and flows parallel to the Donjek along the edge of a broad gravel bar before joining the Donjek near the Donjek-Highway 1 bridge. There are no fish in Kelli Creek.

A placer mining operation would not block the movement of wild life through the placer claim area. Over the last ten years of exploration only one moose has been seen in the Shakwak Trench. No sheep or bear have been seen in the Kluane Range area of Kelli creek. The only visitors to the camp area have been rabbits and porcupines.

#### CONCLUSIONS

The sample results from both the east and west side of the creek demonstrates that placer gold in the gravel extends to 6824950 north. The 1980s mining continued north of the helicopter pad to approximately 6825050 N.

The sample results along the west face of Block 1 indicate positive gold grades adequate to support an economic mining operation.

#### RECOMMENDATIONS

A bulk sampling program is recommended to confirm the exploration results and demonstrate the continuity of the gold along the face of Block 1 and across the Block.

It is recommended that a backhoe be walked into the property in March of 2020 on the winter ice trail from the Alaska Highway to the property. A Lands Use Permit is presently being prepared that will be followed by a Class 3 Water License Application.

Respectfully submitted,



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Gordon G. Gutrath, B.Sc., P.Eng.

**ENGINEER'S CERTIFICATE**

I, GORDON GUTRATH, of 702 – 181 Athlete's Way in the city of Vancouver in the Province of British Columbia, DO HEREBY CERTIFY:-

1. That I am a geologist with a business address of 702 – 181 Athlete's Way, Vancouver BC V5Y 0E5
2. That I am a graduate of the University of British Columbia where I obtained by B.Sc., in geological science in 1960.
3. That I am a Registered Professional Engineer in the Geological Section of the Association of Professional Engineers in the Province of British Columbia
4. That I have practiced my profession as a geologist for the past sixty years.

DATED at the city of Vancouver, Province of British Columbia, this 20th day of January, 2020.

  
\_\_\_\_\_  
Gordon G. Gutrath, B.Sc., P.Eng.

## REFERENCES

Bremner, T. 1991, *Reed Creek, INAC, 1991, Yukon Exploration 1990*, p. 60-64

Dodds, C.I. and Campbell, R.B. 1992, Overview, legend and mineral deposit tabulations for *Geological Survey of Canada* Open files 2188, 2189, 2190 and 2191

Getsinger, J.S. 1998, *Preliminary Field Evaluation of the Kelli Property Area, Reed Creek, Y.T.* (unpublished)

Pautler, J., P.Geo. 2001, *Geological, Geochemical and Trenching Report on the Kelli Property* (unpublished)

McFaul, J. 2004, *Kelli Creek Group, Diamond Drilling Program* filed Yukon Mining Incentives Program

Tremblay, L. 1983 to 2007, Extensive reports, memos, maps, sampling data and photographs of geology related to mineralized zones (private collection)

Gutrath, G. 2012, *Geological Report Kelli Placer Group*, assessment work filing

Gutrath, G. 2014, *Geological Report Kelli Placer Group*, assessment work filing

Gutrath, G. 2015, *Geological and Geochemical Kelli Claim Group*, assessment work filing

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**APPENDIX A**  
**COST OF 2019 EXPLORATION PROGRAM**

# YMEP Expense Claim Form - Client Copy

YMEP no: 16-19-020	project name: Kelli -Reed Creek Placer	Applicant name: Gordon Gutrath		
Expense Claim no:	program type: placer	program module: focused regional		
date submitted: 2010-1 -20	phone: 604 730 5080	email: g@gutrath.com		
address: 702-181 Athletes Way Vancouver BC V5Y 0E5				
Start/ end dates of fieldwork for this claim:	07/19/2019 <small>start</small>	08/17/2019 <small>end</small>		
		no of field days/ this claim: 24 days		
<b>eligible expenses</b> <i>Please refer to rate guidelines. Provide photocopy of receipts.</i>				
item	unit/days	rate	total	
daily field expenses	no persons:3 49days	\$100/day	\$4,900	
Personnel	<i>Name (supply statement of qualifications)</i>			
	F.Erler 8 yrs field experience, first aid	24	\$250	\$6,000
	GGutrath,PEng geologist	17	\$400	\$6,800
	L Smith expediting Argo operator	8	\$200	\$1,600
equipment (rental)	private or commercial	unit/days	rate	total
2 ATVs (500cc)	private	41	\$40/day	\$1,640
1 Ford 4 by 4 +trailer	private	6	\$55/day	\$330
1 Chev 4 by 4 +trailer	private	24	\$55/day	\$1,320
1 8wheel ARGO	private	7trips+standby	\$200 +\$25/day	\$1,425
D8Cat plus fuel	private	5 hours	\$300/hr	\$1,500
	private			
	private			
	private			
	private			
	private			
<b>other</b> <i>please provide details</i>				
GGutrath PENG Geologist	Report			\$2,000
<b>Grand total this claim:</b>				<b>\$27,515</b>

**APPENDIX B**

**LIST OF CLAIMS, EXPIRY DATES AND OWNERS**



# Claim Status Report

04 December 2019

Claim Name and Nbr.	Grant No.	Expiry Date	Registered Owner	% Owned	Excess NTS #'s	Grouping	Permit
KELLY 1 - 4	P 26618 - P 26621	2023/01/01	Kelli-Reed Creek Resources Ltd.	100.00	5 115G12	GW01283	C1P00363
KELLY 5 - 9	P 26622 - P 26626	2023/01/01	Kelli-Reed Creek Resources Ltd.	100.00	4 115G12	GW01283	C1P00363
KRISTY 1 - 3	P 22984 - P 22986	2022/01/01	Kelli-Reed Creek Resources Ltd.	100.00	7 115G12	GW01283	C1P00363
KRISTY 4 - 8	P 22987 - P 22991	2023/01/01	Kelli-Reed Creek Resources Ltd.	100.00	7 115G12	GW01283	C1P00363
TERRY 1	P 23369	2023/01/01	Kelli-Reed Creek Resources Ltd.	100.00	7 115G12	GW01283	C1P00363
TERRY 2 - 3	P 23611 - P 23612	2023/01/01	Kelli-Reed Creek Resources Ltd.	100.00	7 115G12	GW01283	C1P00363
TERRY 4	P 25671	2023/01/01	Kelli-Reed Creek Resources Ltd.	100.00	7 115G12	GW01283	C1P00363

**Criteria(s) used for search:**

CLAIM DISTRICT: 1000004 CLAIM STATUS: ACTIVE & PENDING OWNER(S): KELLI-REED CREEK RESOURCES LTD.  
REGULATION TYPE: PLACER

**Left column indicator legend:**

- R - Indicates the claim is on one or more pending renewal(s).
- P - Indicates the claim is pending.

**Right column indicator legend:**

- L - Indicates the Quartz Lease.
- F - Indicates Full Quartz fraction (25+ acres)
- P - Indicates Partial Quartz fraction (<25 acres)

Total claims selected : 21

- D - Indicates Placer Discovery
- C - Indicates Placer Codiscovery
- B - Indicates Placer Fraction

# **APPENDIX C**

## **2019 GPS WAYPOINTS**

## Waypoint List

Map Name : Blank Map  
Map File :

Datum : NAD83

Waypoint File : C:\OziExplorer\Data\2019-8 kelli.wpt

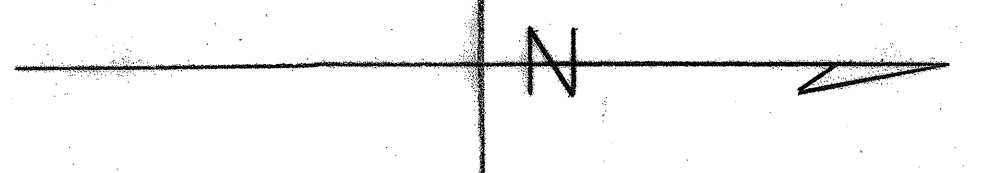
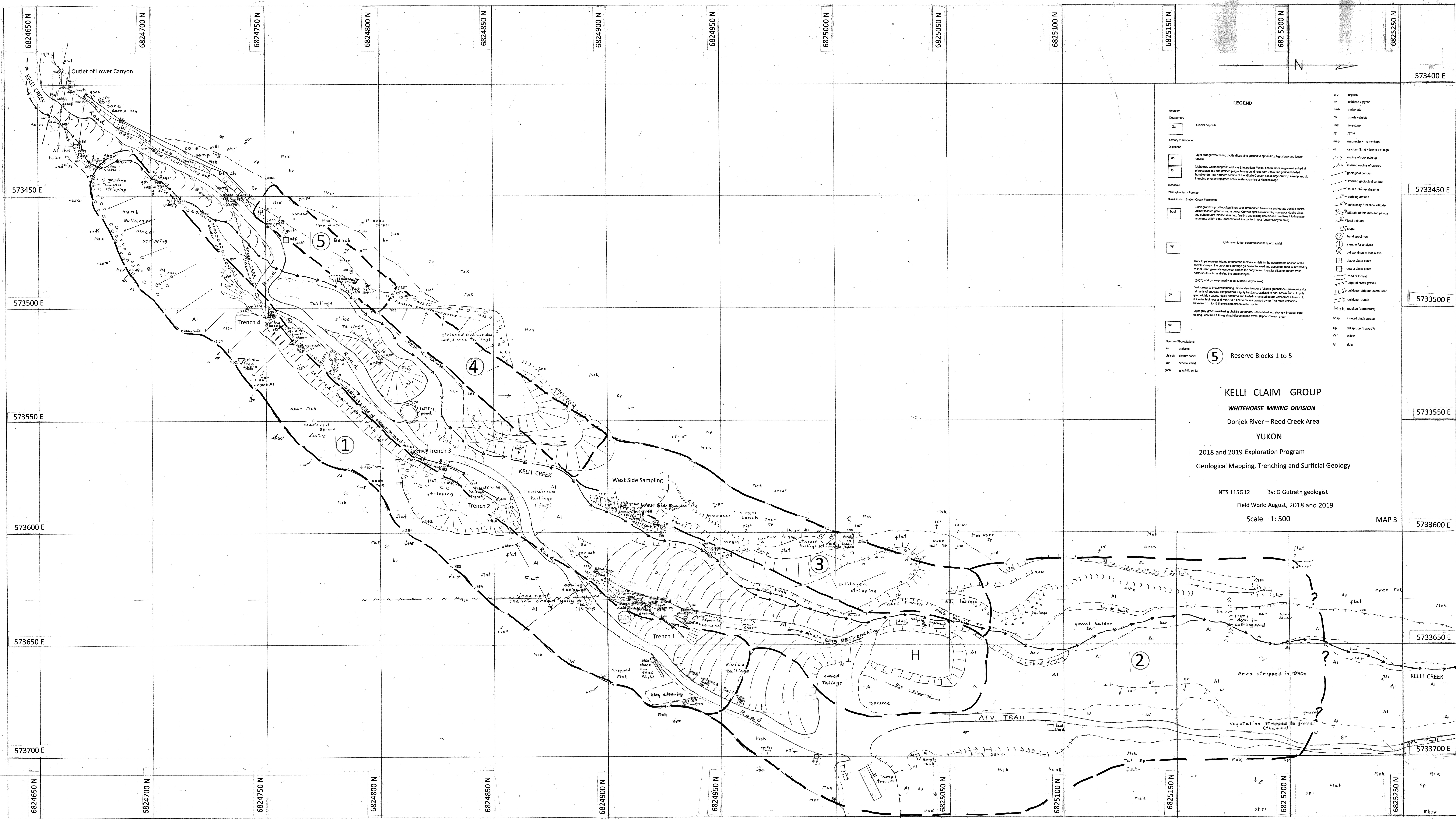
2019-08-19 10:06:00 AM

Num	Name	Zone	Easting	Northing	Alt(m)	Description
115	115	7V	573581	6824942	957	Aug 7 / 2019
116	116	7V	572808	6823635	1096	
117	117	7V	572803	6823602	1124	
118	118	7V	572791	6823580	1126	
119	119	7V	572780	6823524	1140	
120	120	7V	572789	6823524	1144	
121	121	7V	572794	6823521	1145	
122	122	7V	572806	6823509	1155	
123	123	7V	572818	6823519	1158	
124	124	7V	572822	6823511	1166	
125	125	7V	572832	6823513	1170	
126	126	7V	572837	6823526	1159	
127	127	7V	572821	6823533	1151	
128	128	7V	572751	6823532	1133	
129	129	7V	572773	6823506	1149	
130	130	7V	572787	6823491	1156	
131	131	7V	572796	6823476	1168	
132	132	7V	572801	6823470	1173	
133	133	7V	572802	6823470	1173	

## Waypoint List continued .....

Num	Name	Zone	Easting	Northing	Alt(m)	Description
134	134	7V	572800	6823472	1173	
135	135	7V	572842	6823452	1204	
136	136	7V	572850	6823422	1215	
137	137	7V	572856	6823419	1218	
138	138	7V	572850	6823408	1221	
139	139	7V	572847	6823409	1220	
140	140	7V	572855	6823403	1225	
141	141	7V	572870	6823394	1230	
142	142	7V	572875	6823429	1223	
143	143	7V	572850	6823424	1213	
144	144	7V	572846	6823419	1217	
145	145	7V	572843	6823417	1217	
146	146	7V	572848	6823428	1212	
147	147	7V	572788	6823461	1167	
148	148	7V	573592	6824903	942	
149	149	7V	573592	6824913	942	
150	150	7V	573597	6824920	942	
151	151	7V	573508	6824757	957	
152	152	7V	573567	6824819	953	Trench 1 - Sample 1 r 2
153	153	7V	573572	6824835	953	
154	154	7V	572815	6823554	1052	
155	155	7V	572815	6823662	1126	
156	156	7V	572815	6823664	1127	
157	157	7V	572802	6823601	1134	
158	158	7V	572811	6823603	1134	
159	159	7V	572815	6823581	1139	
160	160	7V	572805	6823564	1141	
161	161	7V	572825	6823565	1145	
162	162	7V	572838	6823543	1153	
163	163	7V	572844	6823543	1163	
164	164	7V	572846	6823535	1164	
165	165	7V	572854	6823532	1168	
166	166	7V	572866	6823525	1181	
167	167	7V	572871	6823519	1186	
168	168	7V	572886	6823517	1190	
169	169	7V	572893	6823515	1197	
170	170	7V	572897	6823518	1198	
171	171	7V	572904	6823509	1204	
172	172	7V	572901	6823500	1206	
173	173	7V	572901	6823501	1207	
174	174	7V	572900	6823530	1199	
175	175	7V	572900	6823529	1199	
176	176	7V	572871	6823531	1184	
177	177	7V	572872	6823530	1184	
178	178	7V	572860	6823537	1179	
179	179	7V	572810	6823601	1131	
180	180	7V	572825	6823601	1136	
181	181	7V	572826	6823589	1139	
182	182	7V	572834	6823632	1136	
183	183	7V	572840	6823627	1141	
184	184	7V	572838	6823630	1147	
185	185	7V	572852	6823629	1163	
186	186	7V	572854	6823627	1162	
187	187	7V	572870	6823613	1171	
188	188	7V	572877	6823590	1175	
189	189	7V	572878	6823585	1175	
190	190	7V	572884	6823561	1179	
191	191	7V	572882	6823551	1184	
192	192	7V	572893	6823534	1199	
193	193	7V	572854	6823526	1178	
194	194	7V	573564	6824817	958	
195	195	7V	573582	6824844	956	
196	196	7V	573574	6824836	957	
197	197	7V	573574	6824837	957	
198	198	7V	573636	6824923	947	
199	199	7V	573639	6824927	946	

## Map Feature Waypoints



**LEGEND**

**Quaternary**

- Clacial deposits

**Tertiary to Miocene**

- Opipere

**Mesozoic**

**Pennsylvanian - Permian**

**Stoll Group: Station Creek Formation**

Black graphic phyllite, often lined with interbedded limestone and quartz sericite schist. Lower fossiliferous greenstone. In Lower Canyon light is indicated by numerous calcite dikes and subsequent intense shaling, faulting and folding has broken the dikes into irregular segments within logs. Characterized fine pyrite 1 to 2 (Lower Canyon area)

Light green to tan coloured sericite quartz schist

Dark to pale green foliated greenstone (chlorite schist). In the downstream section of the Middle Canyon the creek runs through ps below the road and above the road to transfer by the trend generally westward across the canyon and irregular dikes of that trend (light) and go are primarily in the Middle Canyon area)

Dark green to brown weathering, moderately to strongly foliated greenstone (meta-volcanic primarily of andesite composition). Highly fractured, oxidized to dark brown and red by iron staining. Moderately to strongly foliated and folded. Coarse quartz veins from a few cm to 0.4 m in thickness and with 1 to 5 fine to coarse grained pyrite. The meta-volcanics have from 1 to 15 fine grained disseminated pyrite.

Light grey-green weathering phyllite, carbonate, brecciated, strongly oxidized, light folding, less than 1 fine grained disseminated pyrite. (Upper Canyon area)

**Symbols/Abbreviations**

- an andesite
- ch sch chlorite schist
- ser sericite schist
- gph graphic schist

ang argillite  
 ox oxidized / pyritic  
 carb carbonate  
 qr quartz veinlets  
 mnt muscovite  
 py pyrite  
 mag magnetite + to +++ high  
 ca calcium (any) + low to +++ high  
 outline of rock outcrop  
 inferred outline of outcrop  
 geological contact  
 inferred geological contact  
 fault / intense shaling  
 bedding attitude  
 schistosity / foliation attitude  
 altitude of fold axis and plunge  
 joint attitude  
 slope  
 hand specimen  
 sample for analysis  
 old workings ± 1900s-40s  
 placer claim posts  
 quartz claim posts  
 road ATV trail  
 edge of creek gravels  
 bulldozer stripped overburden  
 bulldozer trench  
 Msk musking (permatoss)  
 steep slanted black epine  
 Sp tall spruce (thawed?)  
 W willow  
 Al asler

**5** Reserve Blocks 1 to 5

**KELLI CLAIM GROUP**  
**WHITEHORSE MINING DIVISION**  
 Donjek River – Reed Creek Area  
**YUKON**  
 2018 and 2019 Exploration Program  
 Geological Mapping, Trenching and Surficial Geology

NTS 115G12 By: G Gutrath geologist  
 Field Work: August, 2018 and 2019  
 Scale 1: 500  
 MAP 3