

PLACER GOLD EXPLORATION REPORT

2015 SURFICIAL GEOLOGY AND PAN SAMPLING REED-KELLI CREEK PLACER CLAIM GROUP GW01054

Whitehorse Mining Division

Donjek River- Reed Creek Area

Map Sheet 115G12 UTM Zone 7 NAD 83

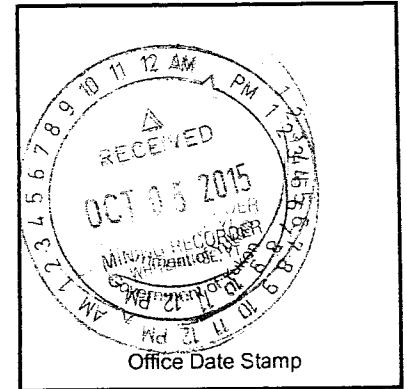
61°33' N Latitude, 139°37' W Longitude

Report by: G. Gutrath, Geologist, P Eng.

Date: June 10, 2016

Claim Name	Grant Number	Renewal Years	New Expiry Date	Excess Allocated	
KELLY 1 - 9	P 26618 - P 26626	4	01 Jan 2023	0	C/D
KRISTY 1 - 3	P 22984 - P 22986	2	01 Jan 2022	0	
KRISTY 4 - 8	P 22987 - P 22991	4	01 Jan 2023	0	C/D
TERRY 1	P 23369	3	01 Jan 2023	0	C/D
TERRY 2 - 3	P 23611 - P 23612	4	01 Jan 2023	0	C/D
TERRY 4	P 25671	4	01 Jan 2023	0	C/D

**APPLICATION FOR RENEWAL
OF GRANT FOR PLACER MINING
Form 2, Section 41
PLACER MINING ACT**



This form to be submitted in duplicate to the Mining Recorder for the district in which the claim(s) is/are situated with a copy of the claim sheet showing the location of work.

Whitehorse Mining District

I, G. Gutrath of _____, Mayo, Y. hereby apply, under the Placer Mining Act, for the renewal of a grant for placer mining claim number(s):

Claim Name	Grant Number	Renewal Years	New Expiry Date	Excess Allocated	
KELLY 1 - 9	P 26618 - P 26626	4	01 Jan 2023	0	C/D
KRISTY 1 - 3	P 22984 - P 22986	2	01 Jan 2022	0	
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TERRY 4	P 25671	4	01 Jan 2023	0	C/D

Renewal claims using excess work.

Dated at: Whitehorse, YT
This 5 day of October, 2015.

Applicant

INTRODUCTION

This report is written on behalf of the claim owners listed in Appendix C.

The time spent on the property and the cost of the program is outlined in Appendix B.

The writer carried out geological mapping and sampling programs on the property in 2011 and 2013. This work continued in 2014 and at the request of the placer claim owners an evaluation of the placer gold potential was undertaken at the start of the 2014 program. In 2015 a surficial geological mapping program combined with pan sampling was carried out on the Kelli 1 – 9 placer claims.

The writer was ably assisted in the field by Mr. Fred Erler who was very helpful in carrying out a large portion of the placer gold panning program.

Mr. Lorne Smith, Mr. Denis Dickson of Burwash Landing, and Mrs. Louise Bouvier of Destruction Bay provided transportation and logistical support for the field program.

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Appendices:

- Appendix A Statement of Qualifications
- Appendix B Cost of 2015 Exploration Program
- Appendix C List of Claims, Expiry Dates and Owners
- Appendix D Colour Count Chart

List of Maps (in pocket)

Map 1, 1:1000 Surficial Geology, Pan Sampling Locations, Bedrock Geology and Geochemical Soil and Silt Sampling

Figures in Report:

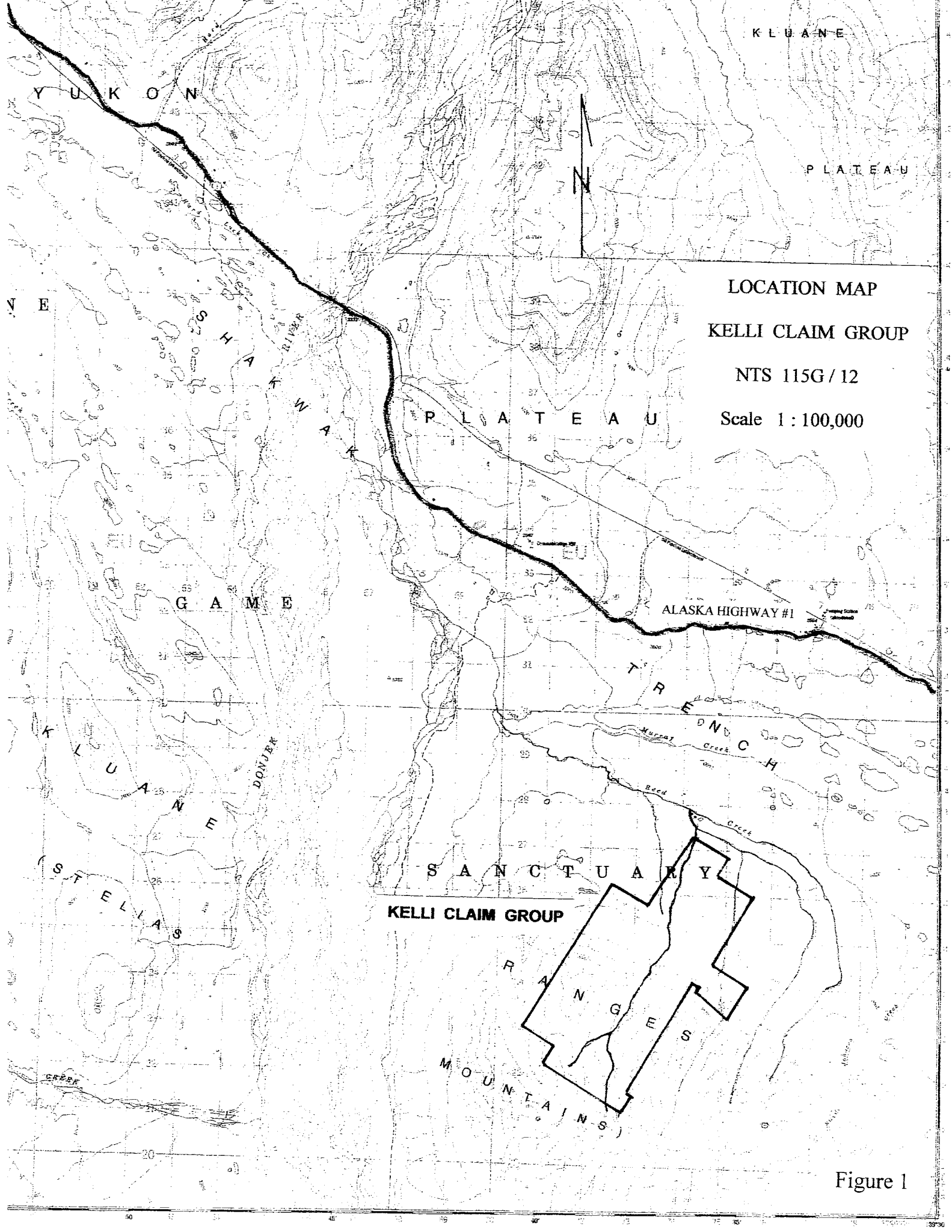
Figure 1: Location Map 1:100,000

Figure 2: Placer Claims and ATV Trail from Highway 1 to Camp

Photographs in Report:

Photo 1: Looking up Reed- Kelli Creek to Forks

Photo 2: Glacial outwash till at the Forks



KLUANE

YUKON

PLATEAU

LOCATION MAP

KELLI CLAIM GROUP

NTS 115G/12

Scale 1:100,000

PLATEAU

GAMME

ALASKA HIGHWAY #1

KLUANME
DONJER

TRENCH

SANCTUARIES

KELLI CLAIM GROUP

RANGES

MOUNTAINS

Figure 1

LOCATION

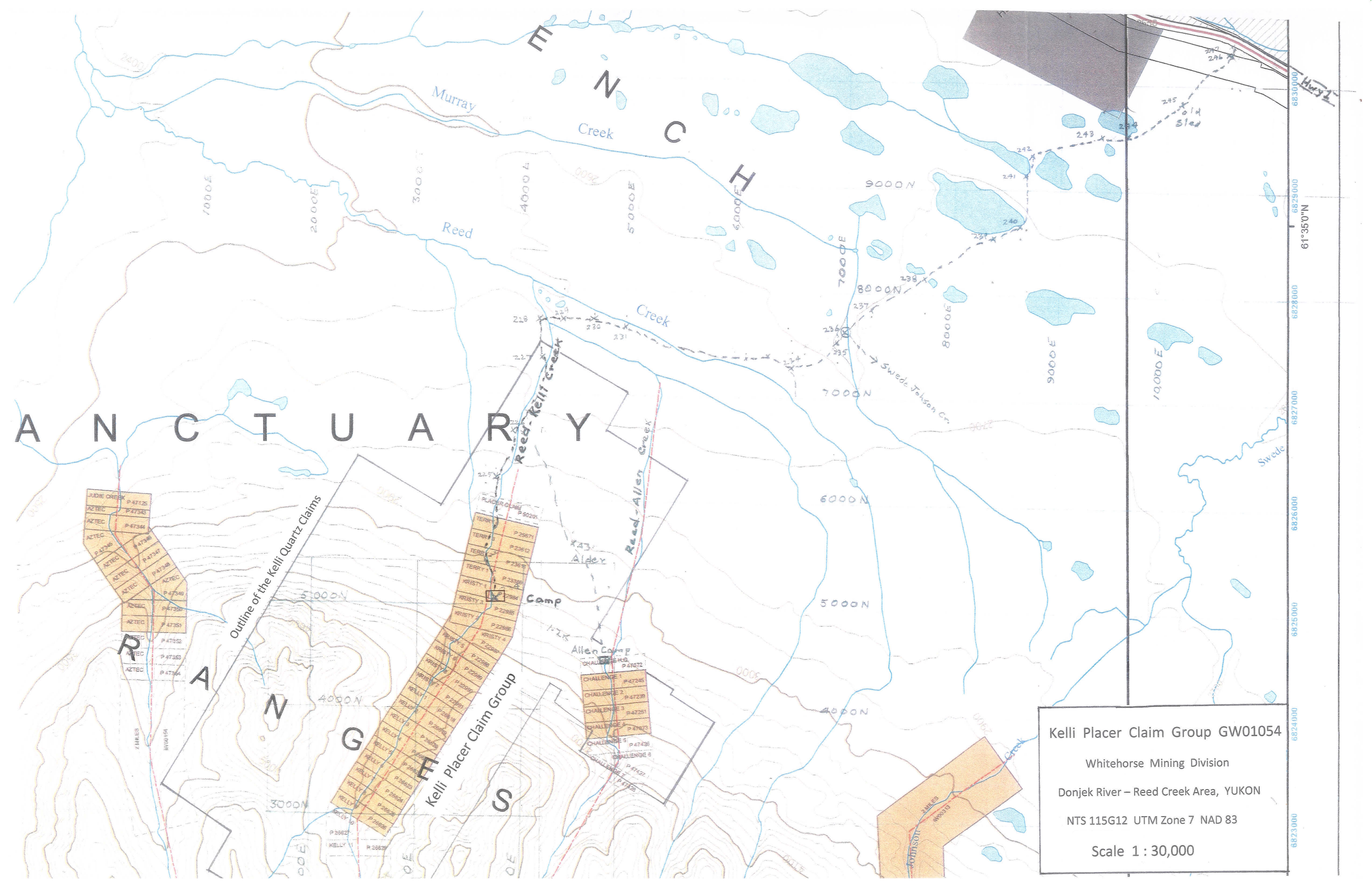
The Reed-Kelli Creek Placer Claim Group #GW01054 (the “Kelli Placer Group”) is located in the southwest Yukon Territory on the northeast facing slope of the Kluane Range. The Kelli Placer Group covers a northerly flowing tributary of Reed Creek that continues westerly along the south edge of the Kluane 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 stream. 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. ?*) at an elevation of 2,600 feet (792 m). The placer claims start upstream 2 kilometres at the Terry 4 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 creek canyon. From the start 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 drops 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 outwash, poorly sorted glacial 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



Kelli Placer Claim Group GW01054
 Whitehorse Mining Division
 Donjek River – Reed Creek Area, YUKON
 NTS 115G12 UTM Zone 7 NAD 83
 Scale 1 : 30,000

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 $+31.7^{\circ}\text{C}$ and the extreme minimum was at -55°C recorded in 1968.

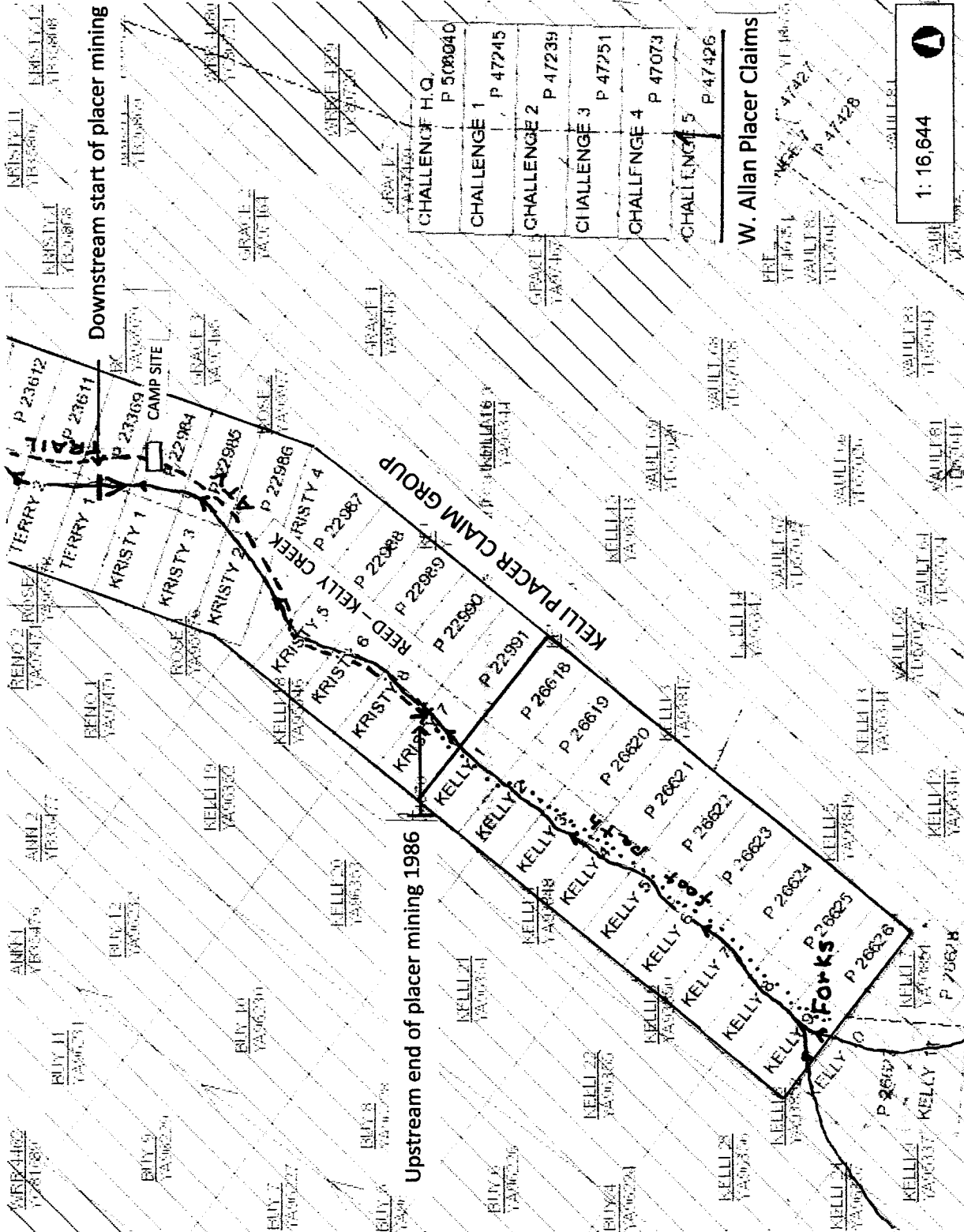
Precipitation

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.

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



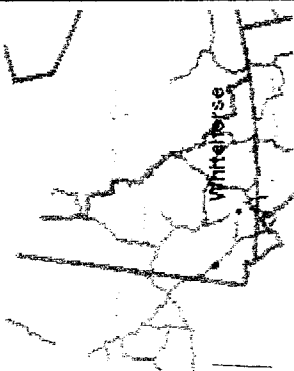
1: 16,644

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: 28-Jun-2015

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
- Adjoin Quartz
- Quartz Mining Land Use Perm
 - Class 3
 - Class 4
- Quartz Staking Direction
- Coal Exploration License
 - Active and Pending
 - Expired
- Coal Mining Lease
 - Active and Pending

Notes



reach the start of the trail on the gravel fan leading to the camp. An Argo and two ATVs made the trip to the camp from the Alaska Highway in three hours including numerous bridge repairs.

From the camp upstream to the mouth of the Lower Canyon the road is in good condition and is accessible by ATV to the start of the Middle Canyon. Continuing upstream 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 boulders across the road. The talus can be easily removed by a small 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.

HISTORY

The history of the property has been reviewed in detail in the 2012 Geological Report by the writer. However, it is repeated below in this report because so much of the history pertains to placer gold mining.

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 as follows:

“In addition to the literature search, some information was gathered by talking to Larry Tremblay (pers. comm., August 1998), about what he knew about the history of mining on the Kelli property. He had heard some of the history from another person who used to work the claims in the 1950's. Jack Lemoygen, from Teslin, staked this creek for placer in 1952, and said you could walk into four tunnels then. He claimed that the California man who owned the placer claim in the 1930's paid his workers bonuses of 52 oz of gold a year, so they must have been doing well. There were up to a half a dozen Swedes working there for several years, and they were quite private about what they were doing, not local, and paid well not to talk to other locals. Other local hearsay reported by Larry

Tremblay includes stories from Harry Frome over at Arch Creek, from old Frank with the packhorses, or about the Jacquot brothers, who used to supply grubstakes for prospectors in the Kluane Ranges, and who lived at Burwash Landing. Mr. Tremblay himself, as an experienced biologist, did a dendrochronologic (tree-ring dating) study of the ruins of three old cabins (one of which was 40 feet long) found near his present camp site, and determined that they were built of logs from trees that were cut down in the periods 1904-1915, and 1928-1935. He said there would have been no reason to build such substantial residences in that area if the occupants were merely hunting, rather than mining. One remnant corner of an old log cabin was observed during our August 1998 field visit across the creek from the trailer camp, up in an area of birch and alder forest on an old alluvial surface; unfortunately that area has been largely covered by bulldozed gravel from more recent placer workings. Many trenches, holes, workings, and old adits have been found in the area of Reed-Kelli Creek, more easily identifiable in 1985 when Tremblay and Duensing first began working there, although some were already caved in and inaccessible. It is difficult to tell how old various trenches would have been, due to the massive rearrangement of loose materials in the canyon by bulldozing and a flood in the late 1980's. Larry Tremblay is certain that the "old timers" who worked this creek were not only placer mining but investigating bedrock occurrences of gold as well as copper, during the 1930's. He said they took out particularly the green mariposite rock, and piled up wall rock slabs at the portals of their underground workings; he said the old short-handled shovels he found supported the idea of underground workings as well. It is presumed from this type of information that there must have been enough gold to provide not only grub but profits for all of these men. It is also rumored that one of the reasons that the government reports are so uninformative about this area is that the records of the Whitehorse mining recorder's office were transferred at some time to Dawson, and subsequently were lost in a flood or some other natural disaster. It also appears to be commonplace that placer miners report less productivity to the government that they may have actually taken home in the form of gold nuggets. For instance, the 2000 oz said to have been reported by Darrel Duensing by Bremner (1991) as coming out of the Kelli claims area in the 1930's and 1980's, was re-estimated by both Larry Tremblay and Darrel Duensing in August 1998 to have been at least 3000 oz or more, only counting what came out in their own tenure of the 1980's and 90's. (This may have included some of the takings of a family from Arizona, a grandfather, father, and son team, who did placer assessment work on the property in 1982, including two nuggets of over 1 oz gold each)."

In 2004 Mr. Tremblay carried out a diamond drilling program at the start of the Lower Canyon. Five BQ holes were drilled totaling 305 m. This program is reviewed in this report and is summarized in Appendix F, 2004 Diamond Drilling Program.

In 2005 a trenching program using a Cobra Drill and dynamite was carried out in the Middle Canyon in the area of the "old timers' workings".

It was reported to the writer that limited placer mining was carried out between the camp and the start of the Lower Canyon in 2004 and possibly 2005 using a backhoe, bulldozer and a sluice plant."

There is very little known about possible historic placer mining or prospecting in the section of Reed-Kelli Creek from the Upper Canyon to the Forks. Larry Tremblay had compiled two maps of this section on two different scales that have been combined on one map at a scale of 1:5000 to provide some insight into the work carried out on the southern part of the creek. With regards to the placer most of the description notes are regarding bulldozer

trenches, depth to bedrock and bedrock geology. There is also information as to bedrock sample analysis as well as geochemical silt and soil sample results taken in the area.

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).

PROPERTY GEOLOGY

General

The property geology is detailed in the 2014 Placer Gold Exploration Report and a more detailed geological description is given in the 2015 Geological and Geochemical Report that has been filed as assessment work on the Kelli Quartz Claims Group.

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 Kelli-Reed

Creek Canyon were not noted. In units that have been intensely folded there are numerous examples of fracturing of 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 Maps 1 and 2 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 Kelli-Reed 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 no evidence of a fault structure crossing the creek.

Dr. Getsinger infers that the structure may be a hinge zone of large scale regional folds. Since there is no obvious fault gouge the topographic expression 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 ~~gs~~ 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. In the Middle Canyon the andesite

has been metamorphosed to chlorite schist. In the Upper Canyon the carbonate rocks interlayered with tuffaceous bands have been metamorphosed to a phyllitic carbonate.

2015 EXPLORATION PROGRAM

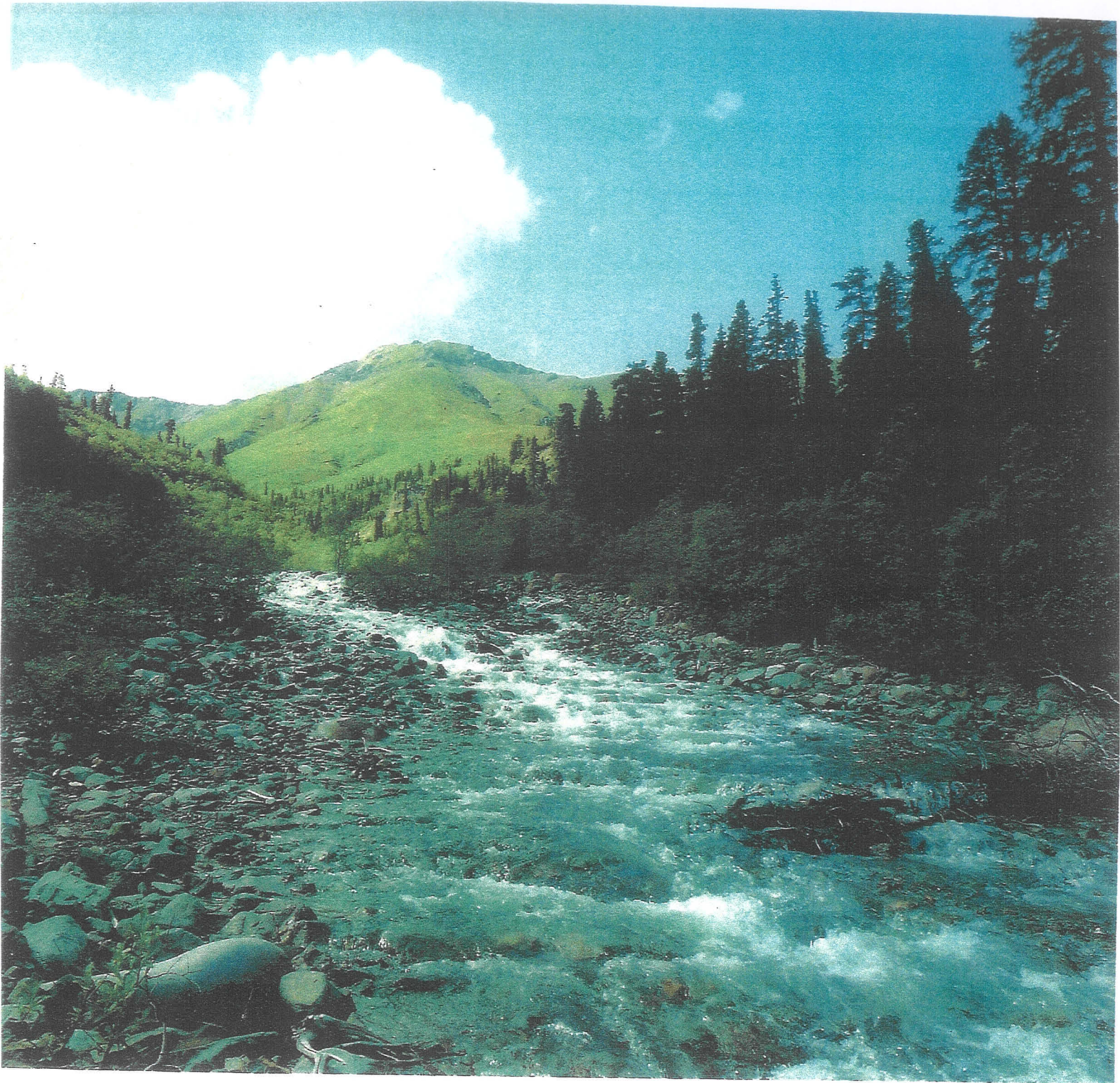
The 2015 Placer-Surficial Geological Program was carried out after a geological mapping, rock, soil and silt sampling program that focused on the Middle Canyon of Reed-Kelli Creek. The focus of the placer-surficial geological mapping program was on the Kelli 1 to 9 placer claims that cover the area between 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 fill the pits. Pan sample sites are located on the map as well as the 2015 results of geochemical soil and silt samples. Outcrop geology is also plotted as well as the major surficial geological features.

Geology, Structure and Mineralization: Kelly 1 to 9 Placer Claims

The structural geology of the Kelli 1 to 9 claim area is not well known as there is very little outcrop except at the south end of the Upper Canyon. This outcrop area is predominantly phyllitic carbonate (**pc**). Going upstream the outcrop area is completely obscured by stream gravels within the Kelly claims.

The traverses on both sides of the creek only located two outcrop areas. The first is a very prominent outcrop on the east side of the creek between WP334 (572609 E / 6823306 N) and WP336 (572584 E / 6823296 N) a distance of 40 m and over a height of 2 m to 6 m. The outcrop is predominantly a chloritic schist (andesite) interlayered with a carbonaceous chloritic schist that is highly effervescent in dilute HCl. There is less than 1% fine pyrite and no magnetite. The strong foliation trends 80° and dips 60° south. Intruding and subparalleling the foliation is a 2 m wide grey feldspar porphyry dike. The second outcrop is small, 1 m by 2 m and is located in the West Fork tributary at WP192 (572329 E / 682312? N). It is chloritic schist (andesite) with less than 1% fine pyrite and no magnetite.

Larry Tremblay noted on his map bulldozer trenches, soil and silt geochemical samples. One of the bulldozer trenches is believed to be located at WP169 (572797 E / 6823646 N) and the 2015 pan sampling is largely from the stacked material from this trench. Mr. Tremblay noted the depth to bedrock was 18 feet (5.5 m) deep and the bedrock was a graphitic, quartz-carbonate. He also noted that the average depth to bedrock along the creek was 9 feet (2.75m). He also recorded four soil/silt samples between the bulldozer trench and the Forks that ranged from 325 ppb gold to 1,260 ppb gold. He noted a soil/silt sample 400 m up the east fork of the creek of 3,200 ppb gold. Also on his map is a Placer Dome line with geochemical soil sample values. The majority of the samples, taken at 100 m spacing, were very low, in the order of 4 ppb gold to 60 ppb gold. However, one sample is a highly anomalous 785 ppb gold. Most of the samples would have been taken from a mix of glacial till and volcanic ash at the permafrost interface and at a depth of less than .25 m to .3 m.



Looking south up Reed-Kelli Creek midway between Structure 2 and the Forks. A 50 m high bank of glacial outwash-till gravels can be seen upstream on the right hand side of the creek at the Forks.

The 2015 silt sampling located three streams that had anomalous or threshold gold values over a north-south distance of 250 m along the east side of the creek. The gold values ranged from 88 ppb to a high of 604 ppb.

Comment

The sample results from 2015 and the historical data is reviewed to demonstrate that there is a significant area of gold mineralization to produce a gold placer deposit in the stream valley covered by the Kelli 1 to 9 placer claims.

Surficial Geology

At the south end of the Upper Canyon and the end of continuous outcrop exposure that forms both sides of the creek, the valley widens and the last of the outcrop area, composed of phyllitic carbonate is at the creek crossing (WP300 (57281E / 6823817 N, el. 1094 m)). At this point the braided stream channel is in the order of 20 m wide bounded on both sides by vertical cutbanks from 0.5 m to 3 m high of cobble boulder gravels.

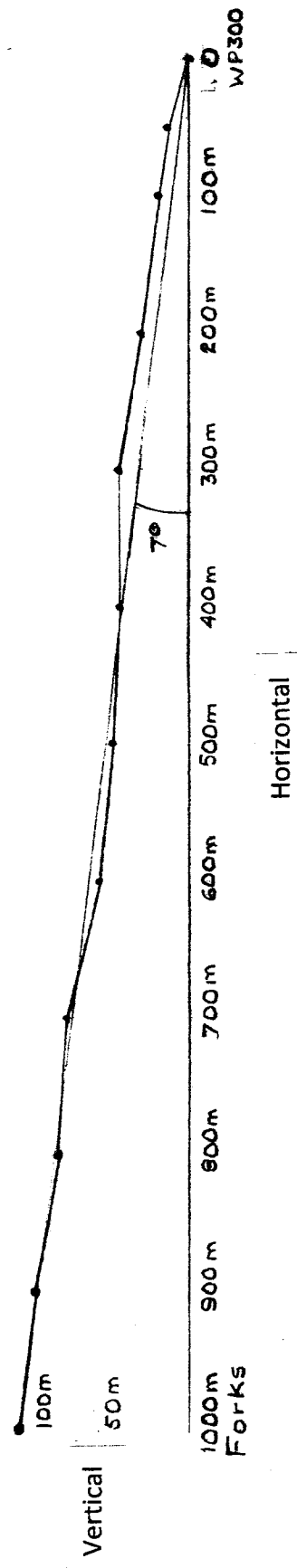
Bordering the present stream channel on the northeast side of the valley is a low bench from 20 m to 40 m wide with a slope of +3° to +10° to the northeast. At WP323 (572772 E / 6823513 N) a small stream channel cuts the edge of a narrow, 10 m wide secondary bench exposing, over 1.5 m, a bank of cobble pebble gravel mixed with talus rock debris. This bench continues to the outcrop area at WP333 (572605 E / 6823315 N) where it blends into the main stream channel. It is along this bench where the bulldozer trail was constructed in the 1980s. It is still in relatively good condition but obscured by a thick growth of alder. This bench is bordered to the north by a fairly uniform slope of +20° to +30° composed of murky interspersed with sections of thick alder and randomly distributed stunted black spruce. There are numerous westerly flowing stream tributaries along this side of the valley all the way to the Forks.

On the southwest side of the valley there is little or no bench development. Thick alder growth obscures the low to negligible cutbank along the edge of the stream channel. The slope of the southwest side of the valley is less than the southwest side and is in the order of 15° to 20°. There are numerous tributary streams flowing to Reed-Kelli Creek as well as localized-seasonal springs that are related in most part to melting near surface permafrost.

For the first 500 m of the stream valley, from the south end of the Upper Canyon to WP188 (572435 E / 6823021 N) the active channel width is in the order of 20 m. From that point to the Forks it widens to 40 m to 60 m. Localized bar development is common within the first 200 m of the downstream braided stream channel.

The active stream channel is largely composed of boulder cobble gravels that quickly form during flash floods to a self-armored channel. Boulder 'trains' are noted in a number of areas and are probably part of the flash flood process although some of them may be related to backhoe or bulldozer trenching. There are randomly distributed large diameter rounded granitic boulders ranging in size from 0.5 m to 1.5 m throughout the creek channel. These boulders would have been derived from the McConnell period of regional glaciation.

LONGITUDINAL SECTION FROM THE CREEK CROSSING (WP300) TO THE FORKS



SCALE 1 : 500



August 6, 2015 : Man on right hand side of creek for scale. Note heavy silt load in creek during heavy rain. In background looking south is cliff face of glacial till.
Looking south PHOTO 2



August 6, 2015 : Reed-Kelli forks at this point and is named the FORKS on the map. The erosion is so rapid that vegetation has not been established on this cliff face of outwash glacial till even though the erosional cycle has been underway for at least the last 1000 years. The slope of fine material extends right to the creek.

It is doubtful if the stream channel was scoured by glaciations but it would have been filled with glacial till during McConnell glaciation to a maximum elevation of ± 1300 m. This event was compounded by local glaciers originating in the St. Elias Range to the west that extended eastward to Kluane Lake.

Starting downstream 200 m from the Forks thick glacial till deposits are exposed on both sides of the valley. At the Forks the stream channel is divided by a 30 m to 40 m thick, steep faced lobe of pebble cobble silt rich glacial till (*Photo 2*). It is poorly stratified although a large portion of the lower face is obscured by fine rock fragments, sandy silt and scattered cobbles. Near the top of the face there is a 0.5 m to 1 m irregular layer of boulder-cobble till.

The stream channel has eroded a large volume of glacial till. Considering the numerous indications of gold mineralization in the area there is a good possibility that a concentration of placer gold could be developed at the gravel-bedrock interface.

The stream gradient is graphically outlined on *Figure 1* starting at the south end of the Upper Canyon and continuing to the Forks in 100 m increments. The overall gradient-slope is 7° or approximately 14%. This is steep for the development of a mature placer gold deposit. There is a gentle slope from 300 m to 550 m but then it rises sharply between 600 m and 700 m to 15° . It was noted in this section that coarser boulders were grouped across the channel forming an irregular 'dam' with cobble-gravels filling in behind the coarse boulders creating a 'step' pattern. This is probably a result of flash floods rather than a bedrock 'step' pattern.

The other event that is probably related to heavy rainfall is the three areas of recent slides in 2011, 2014 and 2015. The largest slide is located one-half way to the Forks and occurs on the southeast side of the valley. It is a 'muskeg-slide' of organic surface material and stunted black spruce. No outcrop or underlying glacial gravels are exposed. Two other smaller slides occur 60 m and 120 m upstream from the south end of the Upper Canyon and are on the northwest side of the valley. These slides were again probably triggered by heavy rainfall increasing groundwater flows on the organic muskeg and underlying glacial till surface. Both of these slides exposed glacial cobble boulder till.

Pan Sampling

The Pan Samples are located on Map 1.

The placer gold colour count is based on a chart (*Appendix D*) used by the 'panner' on a 1973 Churn Drill Program, managed by the writer at Mills-Twin Creek in Alaska. The chart was originally utilized by the Yuba Dredging Company in California where the 'panner' had worked. The original chart had the actual gold particles and weights noted. The weights are quite arbitrary but the shape and diameter of the gold particles gives some discipline in recording the 'colour' count.

The recording of the volume of black sand as to volume in a teaspoon (tsp.) is again an arbitrary measurement. However, better placer gold values are normally associated with a greater volume of black sand, coarseness of the black sand and associated high specific gravity minerals such as hematite, cassiterite, garnet, etc. These mineral assemblages indicate that the sample has been collected from the gravel-bedrock interface.

The black sand referred to in this pan sampling program is a mix of fine grained magnetite and lesser pyrite. Round hematite 'balls' were noted in one sample.

The one mineral combination not seen in any of the pan samples is a white, fine grained often 'tear' dropped shaped quartz-carbonate particle. This mineral effervesces in dilute hydrochloric acid. Larry Tremblay stated in his reporting that it was a typical (essential) mineral found in the better grade placer gold concentrate.

Pan No.	Location	Results (trace, sand)	Comment
Pan 1	WP165 (572840 E / 6823788 N)	1, ¼ tsp. fine black sand	from west gravel bank
Pan 2	WP166 (572808 E / 6823726 N)	0, ¼ tsp. fine black sand	from west gravel bank
Pan 3 to Pan 12	WP169 (572797 E / 6823646 N) WP171 (572756 E / 6823628 N)		12 pans taken from elongate, high 2 m – 3 m pile of boulder, cobble, sandy gravel believed to be from a Tremblay bulldozer trench
	Pan 3	3, 1/4 tsp. black sand with three small hematite 'balls'	
	Pan 4	3, 1/8 tsp. black sand	
	Pan 5	4, 1/2 tsp. black sand, 1 large hematite ball	
	Pan 6	2, 1/16 tsp. black sand	
	Pan 7	2, 1/4 tsp. fine to coarse black sand	
	Pan 8	2, good (a small 'nugget') 1/2 t#1 sp. black sand	
	Pan 9	1, very little black sand	
	Pan 10	3, 1/4 tsp. black sand	
	Pan 11	2, 1/8 tsp. black sand	
	Pan 12	1, 1/4 tsp. black sand	
Pan 13	WP173 (572757 E / 6823569 N)	1, 1/16 tsp. fine black sand	gravel-boulder stacked (?) pile – possible backhoe pit
Pan 14	WP326 (572702 E / 6823481 N)	1, 1/4 tsp. fine black sand	large boulder ridge in middle of channel, possibly a result of a flash flood or pit sampling
Pan 15	WP185 (572477 E / 6823181 N)	0, 1/16 tsp. fine black sand	pile of cobble gravel on near claim posts, possible backhoe pit
Pan 16, 17 & 18	WP191 (572346 E / 6822996 N)	1 pan had 1 trace, and the fine grained concentrate of not more than ½ tsp. has a pale orange colour, possibly garnet.	these three pans are taken from a boulder-cobble layer approximately 1 m thick near the top of pebble sandy clay glacial till face (note Photo ___).

The following pan samples are from a different section of the creek near the south end of the Upper Canyon. Between WP288 (572972 E / 6823990 N) and WP295 (572939 E / 6823917 N) there is a berm of cobble gravels of uncertain origin. It forms the edge of the bulldozer trail but also appears to be the wall of a ditch that was started to divert the creek out of its channel, possibly for the purpose of mining the creek gravels. The continuous berm is broken through at WP290 (572950 E / 6823953 N) which would have allowed the creek to escape back into its original channel.

A total of 12 pans were collected from this berm and the results are as follows:

Pan 19	0, 1/16 tsp. black sand
Pan 20	2, 1/16 tsp. black sand
Pan 21	1, 1/16 tsp. black sand
Pan 22	3, 1/2 tsp. black sand
Pan 23	0, 1/16 tsp. black sand
Pan 24	0, 1/16 tsp. black sand
Pan 25	0, 1/16 tsp. black sand
Pan 26	0, 1/16 tsp. black sand
Pan 27	4, 1/2 tsp. of fine to coarse black sand (magnetite)
Pan 28	3, 1/2 tsp. black sand
Pan 29	0, 1/16 tsp. black sand
Pan 30	0, 1/16 tsp. black sand

CONCLUSIONS

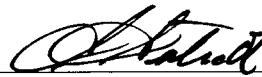
The Kelly 1 to 9 placer claims cover an area of the Reed-Kelli Creek that has not been placer mined in the past and has only received limited exploration by bulldozer trenching. The 2015 pan sampling of gravels from the remnants of a 1980's bulldozer trench at waypoint 169 (572797E / 6823648N) on the Kelly 2 placer claim gave positive results for placer gold. Ten pans were taken and all of the pans had 1 to 3 trace colours and one pan had a '+1 good-nugget'. There were some hematite balls and courser black sand concentrate indicating that the trench had reached the bedrock- gravel interface. The rest of the pan sampling upstream to the Forks produced some trace colours but there was little evidence that any of the sample sites were bulldozer trenches reflective of the gravel-bedrock interface.

Twelve pans were taken from the roadside berm on the Kelli 1 placer claim producing a few trace colours but overall the results were negative. The cobble- boulder- pebble berm is probably of immediate glacial origin similar to that exposed by the two slides a short distance upstream. This material would have been convenient for road building and the construction of the berm.

The 2015 geochemical silt sampling located anomalous gold values along the southeast side of the valley. Historic reporting has indicated numerous gold anomalous silt and soil samples. A very large volume of glacial till has been

reworked within the Kelly 1 to 9 claims and the numerous indicators of in situ gold mineralization demonstrates a positive source for placer gold.

Respectfully submitted,



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

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APPENDIX A

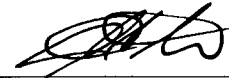
STATEMENT OF QUALIFICATIONS

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 fifty-six years.

DATED at the city of Vancouver, Province of British Columbia, this 10 day of June, 2016.



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

APPENDIX B

COST OF 2015 EXPLORATION PROGRAM

**2015 Surficial Geology Mapping
and Pan Sampling Program**

1. Daily Living Expenses			
Gordon Gutrath		4 days	
Fred Erler		6 days	
Lorne Smith		2 days	
	Total mandays @ \$100/day	12 days	\$ 1,200
2. Mobilization and Demobilization			
Whitehorse to turnoff Hwy 1 and return			
Ford 250 and trailer/supplies and ATV haul:			
Allocated cost			550
3. Equipment Rentals			
1 8 wheel Argo at \$200/round trip plus standby (Dennis Dickson, Burwash)		300	
2 ATVs @ 500 cc engines Atled rent at \$80/day for 6 days		480	
			780
4. Contractors			
Atled Exploration Management Ltd. G. Gutrath Geologist, P.Eng. GPS survey: pan sampling		4 days @ \$400/day	1,600
Fred Erler, Assistant - panel sampler and bagging		6 days @ \$200/day	1,200
Lorne Smith, Argo-D8 operator and standby maintenance		2 days @ \$200/day	400
			3,200
12. Report			
Gordon Gutrath: data compilation: Dominion Blue Print; Report			2,000
Total			<u>\$ 7,730</u>

APPENDIX C

LIST OF CLAIMS, EXPIRY DATES AND OWNERS

Claim Status Report

24 May 2016

Claim Name and Nbr.	Grant No.	Expiry Date	Registered Owner	% Owned	Excess NTS #'s	Grouping	Permit
R KELLY 1 - 4	P 26618 - P 26621	2023/01/01	Kristy Roberts Terry Pflieghaar	50.00	1 115G12	GW01054	CIP00017, CIP00018
R KELLY 5 - 9	P 26622 - P 26626	2023/01/01	Kristy Roberts Terry Pflieghaar	50.00	0 115G12	GW01054	CIP00017, CIP00018
R KRISTY 1 - 3	P 22984 - P 22986	2022/01/01	Terry Pflieghaar	100.00	3 115G12		CIP00018
R KRISTY 4 - 8	P 22987 - P 22991	2023/01/01	Terry Pflieghaar	100.00	3 115G12		CIP00018
R TERRY 1	P 23369	2023/01/01	Terry Pflieghaar	100.00	3 115G12		CIP00018
R TERRY 2 - 3	P 23611 - P 23612	2023/01/01	Terry Pflieghaar	100.00	3 115G12		CIP00018
R TERRY 4	P 25671	2023/01/01	Terry Pflieghaar	100.00	3 115G12		CIP00018

Criteria(s) used for search:

CLAIM DISTRICT: 1000004 CLAIM STATUS: ACTIVE & PENDING DOCUMENT NUMBER: GW01054 OWNER(S): GUTRATH GORDON 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

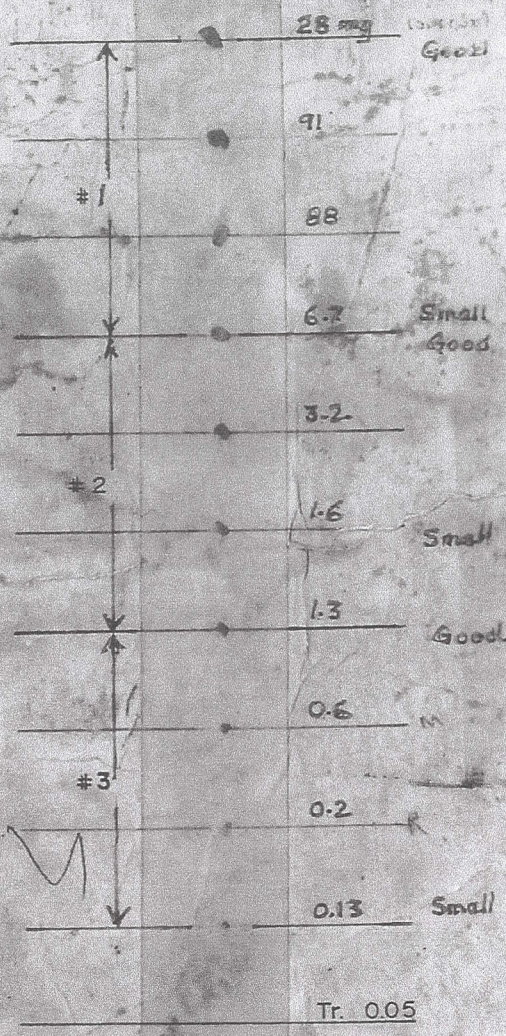
D - Indicates Placer Discovery
 C - Indicates Placer Codiscovery
 B - Indicates Placer Fraction

APPENDIX D

Colour Count Chart

1973

Value Estimates



J.L. DARLING CORPORATION
www.RiteintheRain.com