



The Klwane Project

YMIP 10 - 116

Dick McKenna
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Cover photo: In the center of the photo just below the skyline is the weathering schist mountain that heads the stream under investigation. The picture was taken from Kluane Lake about 7 km. Distant.

Forward

The Kluane Project (YMIP Grassroots 10-116) was carried out intermittently between the months of July and September 2010. During this period a total of 34 man-days were spent on the project divided evenly between Dick McKenna and Henry Johnson. Due to factors such as access and time limitations, work was focused on target location 1: Cultus Creek left limit tributary. From this location a total of 13 (1-3 meter) holes were hand dug with selected sections of gravels being processed by pan for gold (and potential platinum) content. In total, four placer claims were staked on target location 1 measuring 3500 feet and two placer claims were staked on target location 2 (Dixie Creek), measuring 1000 feet.

Several days were spent building a trail to the target location on the Cultus tributary after which the majority of the time was spent digging the test holes. A certain amount of time was spent exploring and prospecting the nearby vicinity as well, including a few additional lower tributaries of Cultus Creek. Camp was made on a First Nations homestead with the gracious permission of the owner of the property. From there the target zone was accessed (about 7 km.) by 4 x 4 and foot trail.

Fortunately the weather was favorable, being very dry, which permitted dry holes and comfortable working conditions throughout. On the flip, side the dry weather was a hindrance to water flow on the target stream greatly limiting the amount of gravel that could be tested. Still, despite this hindrance, a lot was learned about the target location – most, if not all, being positive.

As mentioned above, target location 2, Dixie Creek turned out to be more of a challenge to access than predicted. Nonetheless it was accessed with some interesting, even tantalizing, discoveries being made here.

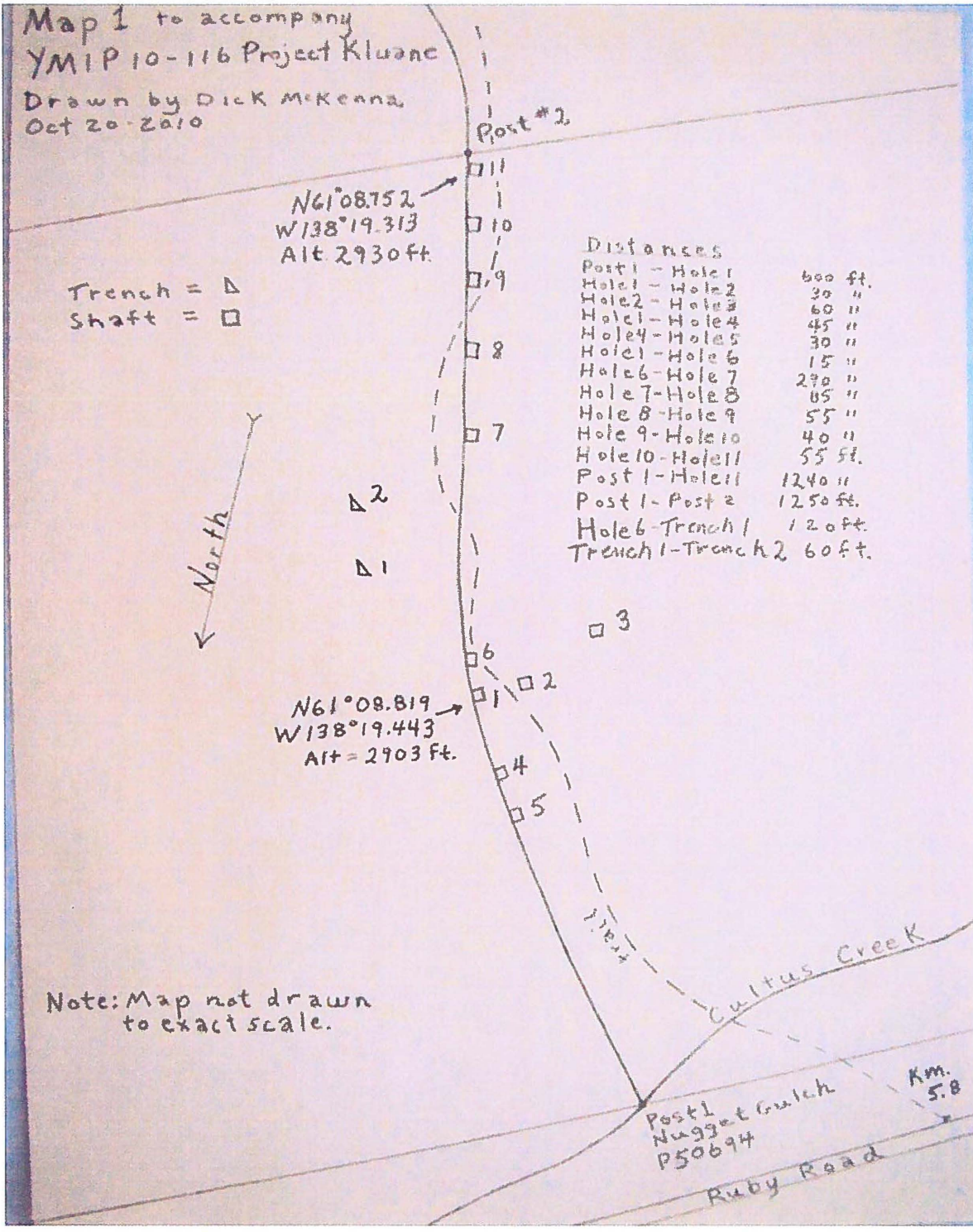
The following report outlines in greater detail the outcome of an invigorating, fruitful and all round enjoyable season of prospecting – Project Kluane.

Description of Holes

The first hole (Hole 5) starts at approximately 525 feet in an upstream direction from where the small left limit tributary (gulch) enters Cultus Creek. Holes 1, 4, 6, 7, 8, 9, 10 and 11 follow the baseline of the creek upwards at selected intervals to a point approximately 675 feet upstream from hole 5. Holes 2 and 3 are located on the left bank with permafrost being encountered almost immediately. Trench 1 and 2 are located on the right bank and did not encounter permafrost. Factors involved in determining the location of the test holes included the grade of the stream, overburden cover and even bee's nests, which are common on the stream.

Due to the intermittent nature of the stream and the unusually dry conditions very little water was flowing in the creek bed (dry most of the time) and except for in the frozen left bank, no ground water was encountered. The lack of an adequate supply of water prevented sluicing of the gravels on-site and thus all the material processed was packed out on pack boards. This comprised about 10 cubic feet of gravel weighing approximately 1000 pounds. All of this gravel with the exception of a test pan every so often was panned out (approx. 200 pans) at the applicant's residence at Whitehorse.

Although the lack of water prevented a larger sample being processed, it did permit the excavation of good clean holes with little to no sloughing. This condition was also advantageous in that it allowed a thorough examination of the superficial material encountered (muck, gravel, silt, clay etc.). Most of the gold bearing gravels in the eastern Kluane area lie either on bedrock, or more commonly on a false bedrock of clay. Thus, it was these zones that were the targets of the holes. A detailed analysis of the gold content of all of the holes will be found in the Analysis section of this report.



Map 1 Holes and trenches dug on Nugget Gulch Co-discovery Claim during the 2010 season.

Test holes on the stream baseline are described starting at the lowermost hole (hole 5) on the stream and working upwards to the uppermost hole (hole 11). Details for each hole is as follows...

Hole 5

Dimensions: 5 x 4 x 4 ft. deep.

Comments: Soil and root for the first 2.5 ft. then coarse to fine gravel along with rocks to +/- 100 lbs. Gophered to 4 ft. and took a 5-gallon sample. Hole could be deepened in the future. Upon panning this hole made one the best showings of colors.



Hole 4

Dimensions: 4 x 4 x 3 ft. deep.

Comments: Large rocks to several hundred pounds encountered at once. Smaller ones removed, larger ones left in place - very difficult digging. Gravel small pea-sized to larger size rocks. Schist to 8 inches, smaller angular quartz. Gophered around big schist rock. Took sample at the bottom. Hole abandoned due to boulders.



Figure 1 The immediate presence of large rocks in the surface soil made digging in this location exceedingly difficult.

Hole 1

Dimensions: 4 x 4 x 7 ft deep.

Comments: 6-inch layer of pea-size gravel right away on right side. Soil and root on left. Gravel at 3.5 feet: semi-coarse with half-inch to 3 inch rocks common and occasional 30 pound boulder. Then silt, clay (?) at 4.5 ft. Took 5-gallon (0.8 cubic ft.) sample of bottom gravel along with a little silt/clay. Large schist rocks encountered at 5 ft. Then fine pea-sized gravel at 6 ft.

Continued hole to 7 ft. whereupon the large rocks (+/- 100 lbs.) made further digging too difficult. Upon panning of the samples this hole made the best showing of gold.



Figure 2 Hole 1 was the first test hole of the 2010 season.

Hole 6

Dimensions: 4 x 4 x 7 ft deep.

Comments: Soil and root to 4 ft. with the odd big rock (+/- 100 lbs.) then gravel to the bottom. Took sample (5-gallon) from 5 – 6 ft. Angular rusty quartz to 6 x 2 inches. Gophered to 8 ft. and took 5-gallon sample. Hole discontinued due to large rocks.



Hole 7

Dimensions: 4 x 4 x 7 ft deep.

Comments: Soil and root with odd 6 " rock to 4 ft. then a 10 " layer of gravel - lots of quartz (+/- 4 x 1.5") and schist in gravel. Below gravel silt (?) with odd rock (+/- 8") to 6 ft. then clay (?) with odd rock: not sure what it is exactly but this layer is sticky and holds together well. Also present are a few very thin sections of black and white (ash?) material. Hole discontinued at 7 ft. still in this material. Could be deepened in future.



Figure 3. Rusty quartz attached to schist found in hole 7 gravel layer.

Hole 7 is strikingly different in character than all of the other holes in that it was the only one that had the thin section of gravel and the thick later of silt/clay (?) material. Took a 5-gallon sample of the gravel layer. Upon panning this is the only hole along the creek baseline that failed to show colors. It is possible, if not probable that this layer of gravel thickens as it goes downstream towards hole 6.

Hole 8

Dimensions: 4 x 4 x 8 ft.

Comments: Soil and root to 4 ft. then coarse to medium gravel: rocks up to 8" with lots of quartz (some rusty some fairly clear) and schist, Angular quartz to 8 lbs. Huge schist slab partially concealed close to bottom. Gophered to 8 ft., still in gravel – took 5-gallon sample.



Figure 4 Hole 8. Large schist slab at left.



Figure 5 Angular semi-clear quartz found in hole 8.

Hole 9

Dimensions: 4 X 4 X 9 ft. deep.

Comments: Soil and root to 4 ft. then gravel with rocks to 120 lbs. (schist), less quartz than hole 8. Gravel appears fine to coarse (unsorted) with lots of iron oxides (yellow) intermixed. Large semi-concealed schist slab at the bottom. Discontinued hole at 9 ft. due to overhanging boulder. Took a 5-gallon sample from both the top and bottom of the gravel layer.



Figure 6 Hole 9. The large boulder in the center made further digging too dangerous.



Figure 5 A typical selection of rocks from hole 9.



Figure 7 Gravel in place at the bottom of hole 9.

Hole 10

Dimensions: 6 x 6 x 7ft.

Comments: Soil and root to 4 ft. then gravel with rocks to 110 lbs., some angular quartz to 6" and lots of schist. Gophered to 9 ft. The lowest 8" seems to be in a fine grained (like sugar) tan colored material. Took a 5-gallon sample of it along with gravel. Also took a sample of gravel from the top 1 ft. section. Hole should be continued down several more feet if possible.



Figure 9 Hole 10.



Figure 8. Fine material at the bottom of hole 10.

Hole 11

Dimensions: 5 x 5 x 7ft.

Comments: Soil and root to 4 ft. then gravel to 7 ft. A few large angular quartz and schist rocks to 8". Several schist slabs too 100 lbs. Hole discontinued due to time restraints and weather conditions: the first downpour after a very dry summer.



Figure 10 Removing a sample from hole 11.

Hole 2

Dimensions: 3 x 3 x 3 ft.

Comments: This hole is located 30 ft. east of the creek baseline (hole 1) and is near the base of the north-facing slope. 6 inches of moss and soil then fine to medium size gravel. Water/permafrost encountered at 3 ft. Hole discontinued.



Hole 3

Dimensions: 3 x 3 x 3 ft.

Comments: Located approximately 45 feet southwest of hole 2 at about a 10-foot rise in elevation. It was also stopped because of permafrost. The large granite boulder pictured is of unknown dimension but is by far the largest encountered on the site insofar.



Figure 11 Hole 2 (top) and hole 3 (bottom) both encountered permafrost at 3 feet.

Trench 1 and 2 were dug about three-quarters of the way up the east south-facing slope under the suspicion of a bench deposit. The lack of colors in the samples panned failed to substantiate this suspicion.

Trench 1

Dimensions: 5 x 5 x 3 ft.

Comments: 1.5 ft. of soil and root then into semi-coarse gravel. Took a 5-gallon sample from the bottom.



Trench 2

Dimensions: 5 x 5 x 3 ft.

Comments: 1 foot of soil and root then 2 feet of semi-coarse gravel. Took a 5-gallon sample from the bottom.



Figure 12 Trench 1 (top) and 2 (bottom). Constant sunlight on this south facing slope prevented a shadowless picture.

Panning Results

Hole 1

Pan 1	2 colors
Pan 2	nvc
Pan 3	nvc
Pan 4	1 color
Pan 5	nvc
Pan 6	nvc
Pan 7	1 color
Pan 8	nvc
Pan 9	nvc
Pan 10	2 colors
Pan 11	nvc
Pan 12	1 color
Pan 13	nvc
Pan 14	nvc
Pan 15	2 flakes, 1 color
Pan 16	1 color
Pan 17	1 flake
Pan 18	1 flake
Pan 19	nvc
Pan 20	1 flake, 1 color

TOTAL 5 flakes, 10 colors

Sample size: 1.2 cubic foot.

Pan 1-7: bottom, Pan 8-20: random selection.

Hole 4

Pan 1	1 color
Pan 2	nvc
Pan 3	1 color
Pan 4	1 flake
Pan 5	nvc
Pan 6	nvc
Pan 7	1 color
Pan 8	nvc
Pan 9	nvc
Pan 10	nvc
Pan 11	1 color
Pan 12	1 color
Pan 13	nvc
Pan 14	1 flake, 1 color
Pan 15	nvc
Pan 16	nvc
Pan 17	2 colors
Pan 18	1 color
Pan 19	nvc
Pan 20	nvc

TOTAL 2 flakes, 9 colors

Sample size: 1.2 cubic foot

Pan 1-20: Bottom.

Hole 5

Pan 1	nvc
Pan 2	1 flake, 1 color
Pan 3	nvc
Pan 4	1 color
Pan 5	1 flake
Pan 6	nvc
Pan 7	nvc
Pan 8	1 color
Pan 9	1 color
Pan 10	nvc
Pan 11	nvc
Pan 12	1 color
Pan 13	nvc
Pan 14	nvc
Pan 15	1 color
Pan 16	1 color
Pan 17	nvc
Pan 18	1 color
Pan 19	1 color
Pan 20	nvc

TOTAL 2 flakes, 9 colors

Sample size: 1.2 cubic foot

Pan 1-20 bottom.

Hole 6

Pan 1	nvc
Pan 2	nvc
Pan 3	1 color
Pan 4	nvc
Pan 5	2 colors
Pan 6	nvc
Pan 7	nvc
Pan 8	1 color
Pan 9	nvc
Pan 10	2 colors
Pan 11	nvc
Pan 12	1 color
Pan 13	1 flake, 1 color
Pan 14	1 color
Pan 15	nvc
Pan 16	nvc
Pan 17	1 color
Pan 18	nvc
Pan 19	nvc
Pan 20	1 color

TOTAL 1 flake, 11 colors

Sample size: 1.2 cubic foot

Pan 1-7 bottom, Pan 8-20 random selection.

Hole 7

Pan 1	nvc
Pan 2	nvc
Pan 3	nvc
Pan 4	nvc
Pan 5	nvc
Pan 6	nvc
Pan 7	nvc
Pan 8	nvc
Pan 9	nvc
Pan 10	nvc

TOTAL no visible color
 Sample size 0.6 cubic foot
 Pan 1-10 bottom.

Hole 8

Pan 1	1 color
Pan 2	1 color
Pan 3	nvc
Pan 4	nvc
Pan 5	1 color
Pan 6	1 color
Pan 7	nvc
Pan 8	1 flake
Pan 9	2 colors
Pan 10	nvc
Pan 11	nvc
Pan 12	1 color
Pan 13	nvc
Pan 14	1 color
Pan 15	nvc
Pan 16	nvc
Pan 17	nvc
Pan 18	1 flake
Pan 19	1 color
Pan 20	nvc

TOTAL 2 flakes, 9 colors
 Sample size: 1.2 cubic foot
 1-7 bottom, Pan 8-20 random selection.

Hole 9

Pan 1	1 color
Pan 2	1 flake
Pan 3	nvc
Pan 4	nvc
Pan 5	nvc
Pan 6	1 flake
Pan 7	nvc
Pan 8	nvc
Pan 9	1 color
Pan 10	nvc
Pan 11	1color
Pan 12	nvc
Pan 13	nvc
Pan 14	nvc
Pan 15	1 color
Pan 16	nvc
Pan 17	nvc
Pan 18	nvc
Pan 19	nvc
Pan 20	1 flake
Pan 21	1 color
Pan 22	nvc
Pan 23	nvc
Pan 24	nvc
Pan 25	1 flake

TOTAL 4 flakes, 5 colors
 Sample size: 1.5 cubic ft.
 Pan 1-7 top, Pan 7-14 bottom, Pan 15-25
 Random selection.

Hole 10

Pan 1	nvc
Pan 2	2 colors
Pan 3	nvc
Pan 4	1 flake
Pan 5	1 color
Pan 6	nvc
Pan 7	nvc
Pan 8	nvc
Pan 9	nvc
Pan 10	nvc
Pan 11	nvc
Pan 12	nvc
Pan 13	nvc
Pan 14	nvc
Pan 15	nvc
Pan 16	2 colors
Pan 17	nvc
Pan 18	1 flake
Pan 19	nvc
Pan 20	2 colors
Pan 21	1 flake
Pan 22	2 colors
Pan 23	1 color
Pan 24	nvc
Pan 25	1 flake

TOTAL 4 flakes, 10 colors
 Sample size: 1.5 cubic ft.
 Pan 1-7 top, Pan 7-14 bottom, Pan 15-25
 Random selection.

Hole 11

Pan 1	nvc
Pan 2	nvc
Pan 3	1 color
Pan 4	nvc
Pan 5	1 color
Pan 6	nvc
Pan 7	nvc
Pan 8	nvc
Pan 9	nvc
Pan 10	2 colors
Pan 11	nvc
Pan 12	nvc
Pan 13	1 flake
Pan 14	nvc
Pan 15	nvc
Pan 16	nvc
Pan 17	2 colors
Pan 18	nvc
Pan 19	1 flake, 1 color
Pan 20	nvc

TOTAL 2 flakes, 7 colors
 Sample size: 1.2 cubic foot
 Pan 1-7 bottom, Pan 8-20 Random selection.

Trench 1

Pan 1	nvc
Pan 2	nvc
Pan 3	nvc
Pan 4	nvc
Pan 5	nvc
Pan 6	1 color
Pan 7	nvc
Pan 8	nvc

Trench 2

Pan 1	nvc
Pan 2	nvc
Pan 3	nvc
Pan 4	nvc
Pan 5	nvc
Pan 6	nvc
Pan 7	nvc
Pan 8	nvc
Pan 9	nvc

TOTAL 1 color
 Sample size: 0.75 cubic foot
 All samples from bottom.

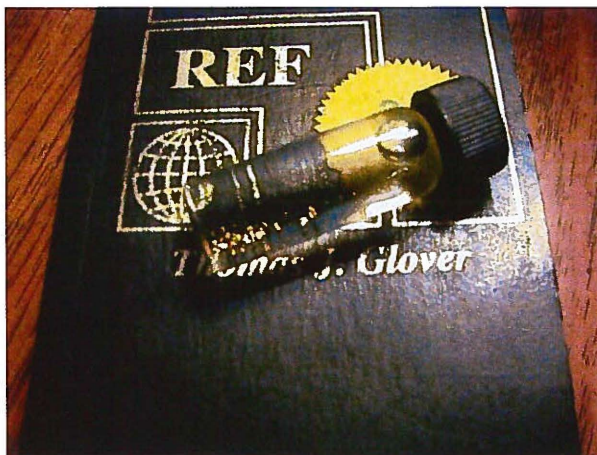
GRAND TOTAL 22 flakes, 71 colors (93 particles of gold)
 Sample size: Approx. 11 cubic feet of gravel (14 - 5-gallon pails), 197 individual pans.

According to T.J. Glover's Pocket Reference a 5-gallon pail holds 0.8 cubic feet of dirt. Thus using an expansion factor of 0.33 % the sample probably represents 7 cubic feet in the ground.

Flakes and colors as designated here is a relative term. A flake may range from 1mm to about half that, an average color may be half that again, a small color could be up to 100 times smaller than a large flake.

TOTAL weight of gold

15 milligrams (fine)



Analysis

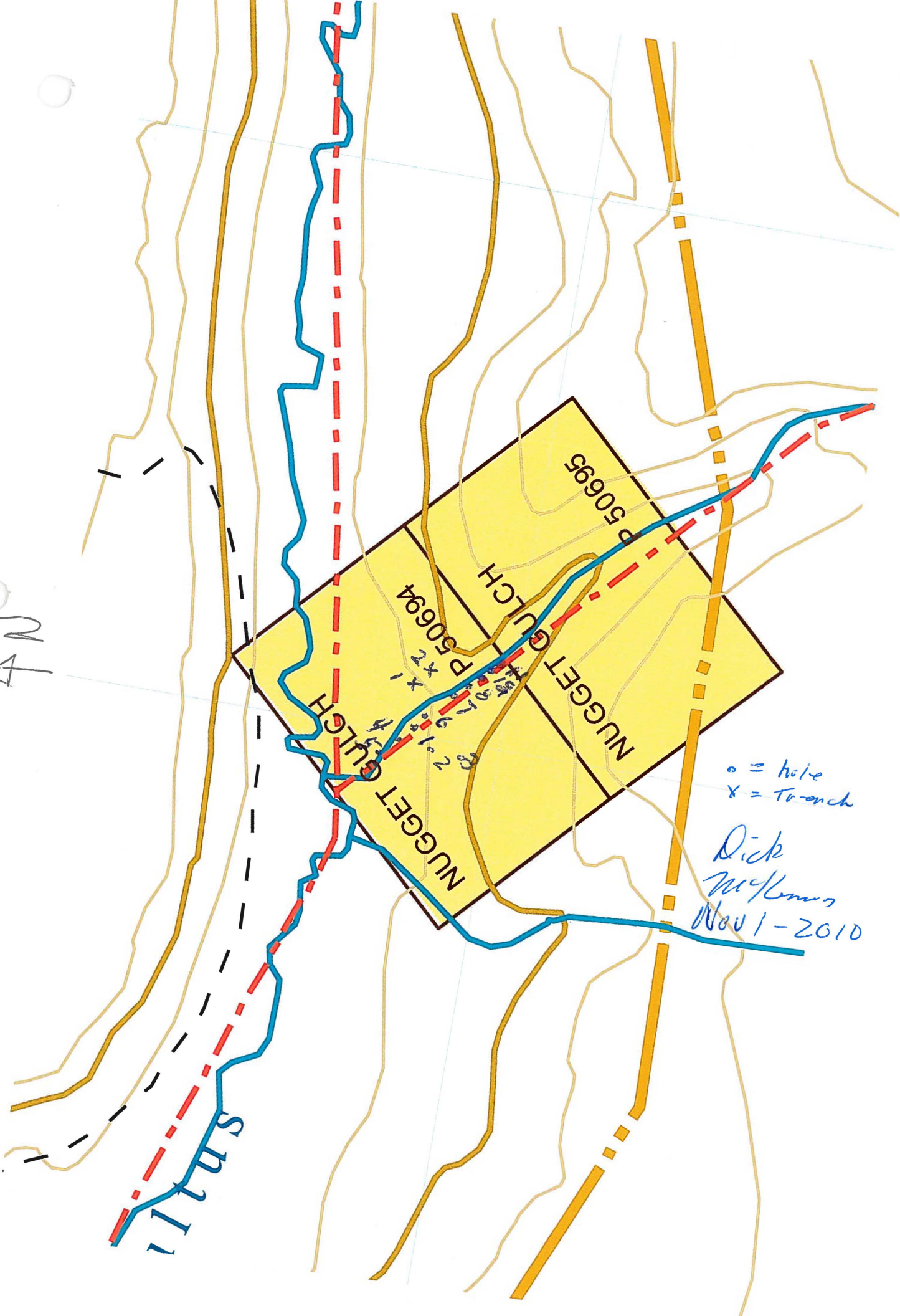
Holes 1, 4,5 and 6 are all located on the lower portion of the creek, about 90 feet separating hole 1 from hole 6. Holes 4 and 5, both shallow holes, showed remarkably similar panning results. Because the holes were so shallow (barely beneath the soil layer) samples were taken only from the bottom. Holes 1 and 6 have 15 feet separating them. They have dissimilar panning results: hole one probably produced double or more the gold showing than hole 6. These two holes are similar however in that the random samples taken were more fruitful than the samples taken from the bottom of the holes.

Hole 7 is located about 290 feet above hole 6 and 85 feet below hole 8. Samples taken from the 10" gravel layer (and some clay) produced no visible color. This is probably due to the thinness of the gravel layer. Because of this situation no further samples were taken from this hole.

Holes 8,9,10 and 11 are separated by approximately 150 ft. and are located between 910 and 1240 feet up the streambed. Upon panning of the samples, hole ten did the best (of these 4) closely followed by hole 9. When these results are broken down into the separate layers there are some surprising results: samples from the top of the gravel layer produced remarkably more color than those taken from the bottom. The random samples however did the best overall even when considering the slightly larger sample size. Samples from holes 8 and 11 showed very similar results, hole 8 having 2 more colors. Here again in both cases the random samples did better than the samples taken from the bottom.

Trenches 1 and 2 were shallow and located away from the creek baseline and thus the results will not be considered in the following evaluation of the holes. One color was obtained from the samples panned.

4N



o = hole
x = Trench

Dick
McCombs
Nov 1-2010

Table 1

Hole	Flakes	Colors	Particles	
Hole 1	5	10	15	
Hole 4	2	9	11	
Hole 5	2	9	11	
Hole 6	1	11	12	<u>Subtotal</u>
				49
Hole 7	0	0	0	
Hole 8	2	9	11	
Hole 9	4	5	9	
Hole 10	4	10	14	
Hole 11	2	7	9	43
TOTAL	22	70	92	

As shown in Table 1, hole 1 made the best showing followed by holes 10 and 9. Holes 8, 4 and 5 made the next best showing: all three having identical results. Hole 6 made a slightly lower showing and hole 7 was a blank. Actually, with the exception of hole 1 (and hole 7) all of the holes for the most part showed very similar results: for instance when comparing hole 6 (the lowest gold showing) with hole 10 (the highest) the difference in the amount of overall particles is only 3. In fact, hole 6 had the highest amount of colors overall with one more than hole 1. It's the amount of flakes in hole 1 that make this hole stand out from the rest. Interestingly however, when looking at the panning results it shows that all of the flakes found in hole 1 came from the last six pans (from the random samples). Thus, it's quite possible that any of the holes could be within a few well-placed shovels of making the best showing.

Observations & Findings

Considering the small overall sample size, an accurate representation of the gold content of the gravels encountered is impossible to determine. Still, assuming that all of the gravels encountered have a relatively even distribution of gold (as the results seem to indicate) a total value per cubic yard can be calculated as follows...

The amount of material sampled was about 11 cubic feet. When eliminating the two trenches and the blank hole, this amounts to about 9 cubic feet on surface or about 7

cubic feet in the ground. Approximately 15 milligrams of gold was recovered from this gravel. This means that there is approximately 2.2 milligrams per cubic foot or about 58 milligrams per cubic yard¹. To put this into some perspective it is said that the cut-off grade for dredge operations in the Klondike in the 1960's was about 300 milligrams per cubic yard². And that was the cut-off grade: the average was much higher. A lot has changed since then and there are various factors that determine what grade of gravel is mine-able today at a profit, however gold averaging one gram per cubic yard would most likely provide good to above average pay. When looking at the test results, one gram divided by 58 milligrams equals approximately 17.2. Thus, it can be said that the deposit tested would probably have to be about 17.2 times richer to be a profitable mining proposition.

An important and obvious consideration however is the fact that neither a false bedrock nor true bedrock has been struck. It is quite possible that in one or both of these locations concentrated zones or "paystreaks" of gold will have developed. Just how rich the pay streak will be cannot be determined by the gold concentration in the top or overlying gravels of coarse, but one study carried out by R.G. McConnell on the White Channel Gravels of the Klondike in 1904³ sheds some light on the subject. A 150-foot excavation was made (shaft) to bedrock and all the way down samples were tested for gold. The findings were that there was about 100 times the gold concentration in the bottom 4 yards of gravel then in the top 46 yards – most in fact being on, or in bedrock. In other words, in this case the pay streak was 100 times richer than the overlying gravels.

The stream under investigation is not the White Channel Gravels of the Klondike of coarse. Having said that, if the same ratio as above were to be found on the test stream there would be about 5.8 grams of gold per cubic yard on bedrock.

¹ In two zones of unknown extent: one above hole 7 and one below hole 7.

² Page 28 Yukon Placer Mining Industry 2003 – 2006.

³ Page 220 GSC Memoir 284

Bedrock Exposures, Topography & Drainage

Starting at about km. 12 on the Cultus Bay Road a mountain of schist with quartz veins occurs immediately on the right and from there to the test stream, schist is about the only rock type of all the mountains within sight. The lower valleys such as Cultus however are floored with up to 400 feet of till or overlying silts, clays and gravels. and bedrock exposures are not prevalent. The one location in the lower valley where the bedrock was seen exposed is a strip about 500 feet long of schist with a quartz vein of about 4 or 5 cm in thickness located about ten to fifty feet above Cultus Creek and directly across from the mouth of the stream under investigation⁴.

A prominent feature about the stream (gulch) under investigation is the high and steep mountain or "butte" of weathering schist located at its head, about 1-½ miles upstream. Thus it seemed highly probable that the entire make-up of the bedrock of the stream was schist. The holes sunk, having failed to reach bedrock, failed to substantiate this presumption. The gravels encountered however have a high amount of schist rock and rough, rusty angular quartz, appearing quite local in nature. Furthermore, large schist slabs to several hundred pounds were encountered at the bottom of nearly all of the holes. All of this leads the writer to suspect that 1: the underlying bedrock is schist, and 2: bedrock is close at hand – probably 5 to 10 feet.

Subsequent prospecting late in the season did reveal schist bedrock near the creek bed on its left limit at about 3000 feet from its mouth (about 1800 ft. from hole 11). The valley near the bottom to this point seems to be about 100 feet wide any given point. Then at about 3500 feet up the creek a gorge or canyon occurs perhaps 50 feet high and fifty or less feet wide. Time restrictions prevented further instigation but according to google earth and the topo maps this canyon continues up for about 2000 more feet where it splits into two canyons. One carries on eastward perhaps 500 feet to the foot of the high schist mountain (butte), the other carries on for a few hundred feet in a southwesterly direction then it levels out for a while whereupon a lake of about 1000 feet long is found. This lake is the headwaters of the stream.

⁴ Bedrock was also located on Printers Creek in the streambed about 2500 ft. up from its confluence with Cultus Creek. .

Although the lake probably supplies the upper reaches of the stream with ample water year round the lower portion is intermittent at best, running only during rainy periods. At about 2500 feet upwards however several springs enter from the left limit (thawing permafrost?) and by 3000 feet from the mouth (after 4 days of rain) the stream had a pretty healthy flow being about 4 to 6 feet across and a foot or so deep. It appears that most of this water soaks into the ground before it reaches the lower portion of the stream.

The stream itself, due to its location across the Cultus Creek Valley from the road, is very well hidden; access is far from easy, as beaver dams have diverted the creek into at least five channels. This damming and further spruce beetle kill has caused much deadfall adding to the inhospitable nature of the place – at least as far as access is concerned. Absolutely no sign of human invasion was seen at all while traversing the stream except for several well pronounced tree blazes on some very old standing spruce: one is adjacent to hole 1 and another is adjacent to hole 8. The one adjacent to hole 1 is about ten feet off the ground so it must be very old. Another place of possible human activity is a large pile of rocks located near the 3000-foot level where the bedrock begins to surface. The possibility that these are signs of old prospecting activities⁵ is considered however further investigation is needed in order to confirm this theory if it can be confirmed at all.

Other Cultus Creek Tributaries

Some prospecting and panning was done during the season on Cultus Creek and two of its tributaries: Printers and a smaller unnamed stream locally known as Cottonwood Creek: both located just downstream from the target stream. On Cultus Creek (approximately 3 km. downstream) a 4 ft. hole was dug and from about a half-yard of gravel 8 small colors were recovered using a small sluice box.

⁵ GSC Mem. 284 pg. 361 – “On Cultus Creek some prospecting has recently been done and on an unnamed tributary entering that stream from the left bank, gold is reported to have been found in encouraging amounts.”

Printers Creek enters Cultus from the north and is located about 4 km. downstream from the target stream. Via an old road an old cabin and workings were visited about a quarter of the way up. Visible were old piles of overgrown gravel, old hose and a shaft sealed with plywood. Bedrock here is exposed in the creek bed. A few pans were taken from the silty material on bedrock (schist) but showed no colors. A sample taken from an old pile of gravel however did produce a color.

Cottonwood Creek enters Cultus also from the north and is located about 2 km. downstream from the target stream. This stream came in very handy for panning out samples from the target stream. Schist and quartz are very prevalent here as on Printers too. About four or five pans were made here from surface material with no colors being found.

Claims Staked



Map 2 A total of 4 claims were staked on the small left limit tributary of Cultus Creek during the 2010 season: two 1250-foot co-discovery claims and two 500-foot regular size claims. The stream entering from the north is the one locally known as Cottonwood Creek.



Map 3 In the center are the two placer claims staked on Dixie Creek during the 2010 season. The two larger co-discovery claims were staked the previous fall by prospectors Thomas Hale and Joe Columberg.

Dixie Creek

Access into Dixie Creek proved a lot more difficult than anticipated. After several unsuccessful scouting trips, a local First Nations elder graciously provided directions by means of a 30 km. long "trail" being passable at present only by 4-wheeler or Argo type vehicles.

Dixie Creek was reached by 4-wheeler after about 8 hours of rough going. Discovery claims and camp were located and a survey was made downstream a few thousand feet. Camp was made under a tarp, firewood procured and a drizzling night was basically sat out. At 6 AM another survey was made downstream and the target zone: just below the right limit tributary was located. Two 500-foot placer claims were staked here. As it was a planned overnight excursion, time was limited so only another quick

visual survey could be made. A few of the things seen were pans and other small-scale gold prospecting and recovery equipment on discovery claim: of very recent date.

A 45-gallon drum and a fire-pit were seen on the first claim staked on the target zone. A 5 x 3 ft. flooded prospect hole was seen on the claim just below discovery and up above discovery a few thousand feet there is what appears to be an old pile of stacked rocks.

Interestingly, claim posts for two claims just below discovery, dated less than 48 hours earlier were found. However, just as interestingly, as of this writing, four months later, they have not been recorded.

Dixie Creek in the vicinity of the claims is about 8-feet across and about a foot deep. The tributary stream just above the claims is about 3-feet wide and 6-inches deep. Schist rocks are abundant many surfboard size slabs being seen in the creek. Rusty angular quartz is also abundant. Bedrock exposures were not seen in the lower creek valley, the surrounding mountains however are predominantly schist. Following the initial staking trip, Dixie Creek was not re-visited again during the season.

Overall Dixie Creek appears to be on ground with a high potential for gold deposits. It seems that its lack of good 4-wheel drive access has contributed to its lack of prospecting and or mining development. It also seems that it would not take an overly large amount of work to upgrade the trail to 4 x 4 standards.

Conclusions & Recommendations

Looking back over the 2010 prospecting season, a lot has been learned from the Kluane Project - and most, if not all of what has been learned, has been positive. First off, a good familiarization of the region was gained: on the target stream, as well as on some of the nearby Cultus Creek tributaries. Panning has revealed the presence of fine gold in Cultus Creek, Printers Creek and on the target creek. And while the test holes have not reached bedrock they did intercept gold bearing gravels.

Bedrock has been located a few thousand feet upstream from the holes and found to be schist and quartz bedrock. It has also been discovered that this bedrock outcrops in the form of a canyon or "gorge" a short ways upstream from there. This gorge carries on for several thousand feet. According to discussions with Placer Geologist Bill Lebarge this used to be a glacier melt water channel. Thus, a lot of erosion and cutting of the gold bearing strata must have occurred.

Below the canyon is about 4000 feet of ground with good potential for placer gold deposits - 3500 feet of this has been staked. The test holes dug are located from about 600 to 1250 feet up the gulch. During the season the lack of water on the lower reaches prevented any quantity of gravels from being tested, however it looks like this will not be a problem upstream.

As the test holes turned up gold, the logical next step (phase II) is to move upstream and dig more test holes – preferably to bedrock this time. Thus, starting at about the 3000-foot level, just below where the bedrock surfaces, test holes should be dug on both the right and left banks working downstream at intervals to a maximum of about 50 feet. A small portable sluice should be used and gravels from the holes (1/2 to 1 yd.) should be tested on an ongoing basis in order to determine the gold values.

In order to learn more about the stream (and perform the required assessment work) at least a few holes should be dug on the second claim (Nugget Gulch 2) as well. The total amount of test holes will be determined by the budget but somewhere in the neighborhood of 20 to 25 should suffice.

It is also recommended that a semi-permanent camp be installed right on the target gulch, including a weather sealed structure for accommodation. The cost of which is estimated to be from \$1000 - \$2000. This would be a great benefit to the project enabling better work conditions, more work to be done, and less travel time.

It would also not be a bad idea (sometime later as yet to be determined) to deepen and widen a few of the holes done on the lower claim, as bedrock may be close at hand.

Dixie Creek appears to have potential too, however other than the required assessment work (perhaps a few holes), this target should be put on the backburner until a later date so full attention can be given to the Cultus Creek tributary.

Distances and GPS coordinates

Target Location 1: Cultus Creek tributary (NTS 115G01)

Distances:

Whitehorse City limit (north) – Silver City Road = 203 km.
Silver City Road – Cultus Bay road = 2.2 km. (on right)
Cultus Bay road (start) – Ruby Road jnt. = 19.1 km.
Ruby Road jnt, - Target location trailhead (on right) = 5.8 km.
Trailhead to Hole 1 = approximately 1000 ft.

GPS coordinates:

Hole 1, Claim I: N 61 deg. 08.819 min., W 138 deg. 19.443 min. Alt: 2903 ft.

Target Location 2: Dixie Creek (NTS 115H04)

Distances:

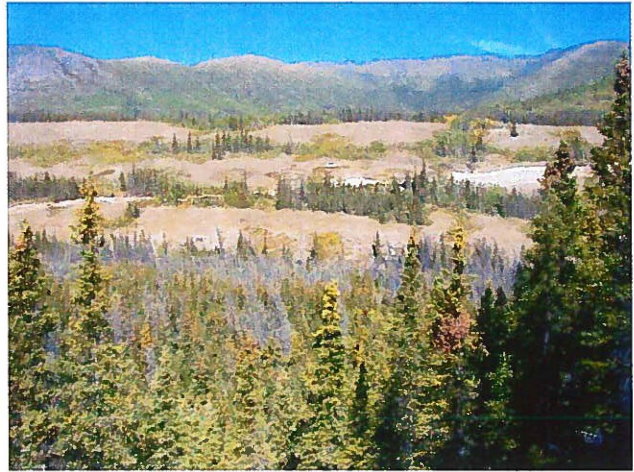
Whitehorse City Limit (north) – Bear Creek turnoff (right) = 158 km.
Bear Creek turnoff – old Alaska Highway ROW = 8 km.
ROW (trailhead) – Dixie Creek Claims = 30 Km.

GPS coordinates:

Post 1, Claim 1: N 61 deg. 01.391 min. W 137 deg. 39.647 min. Alt: 3660 ft.

Pictures

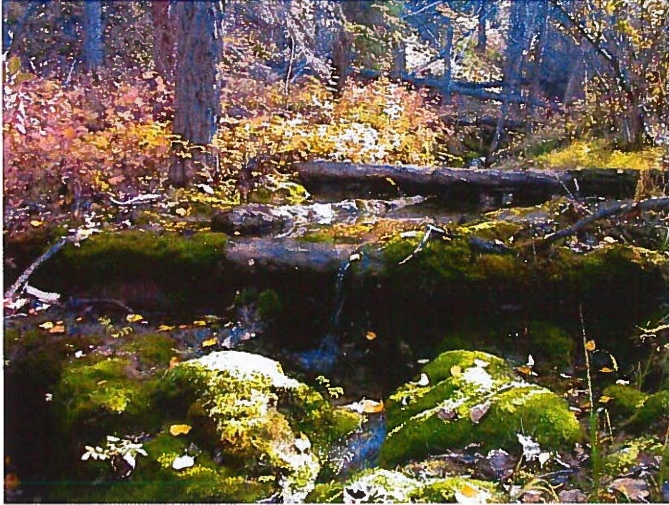
A view across Cultus Creek Valley from the right bank of the target stream (gulch). At the bottom is where it enters Cultus Creek: both streams being obscured by trees - just above that is the long schist outcrop. Note the terracing in the valley till caused by the fluctuating levels of Kluane Lake about 6 km. to the west (left).



Taken from the same vantage point as the above picture, this shows the view down Cultus Creek Valley towards Kluane Lake. The lake is located just below the prominent butte like mountain in the upper center of the photograph.

This picture was taken from the same hilltop (located above the right limit) showing the view towards the head of the stream. The prominent schist "butte" is just to the right of the photo. It is very difficult to get a good view of it from the creek level. At right is the north-facing bank. Note the narrowness of the gulch – probably not more than several hundred feet across at the top and half that at the bottom.





This picture shows the target stream (gulch) about 1300 feet up from the mouth. It has a small amount of water flow since it rained the day before. Note the deadfall straddling the stream: a common occurrence in the gulch.

This shows the stream at about 2700 feet from the mouth. Here the water flow and volume picks up substantially. Henry Johnson navigates through the dense deadfall.



At about 3000 feet up the stream schist bedrock starts to surface. To the right, just underneath the moss, is one of these occurrences.

Here at about 50 feet above the stream on the left bank (at about the 2800 foot level) the turf was peeled off to reveal bedrock.



Another exposure of bedrock on the left bank: this one at about 3000 feet up the stream and about 500 feet below the canyon.

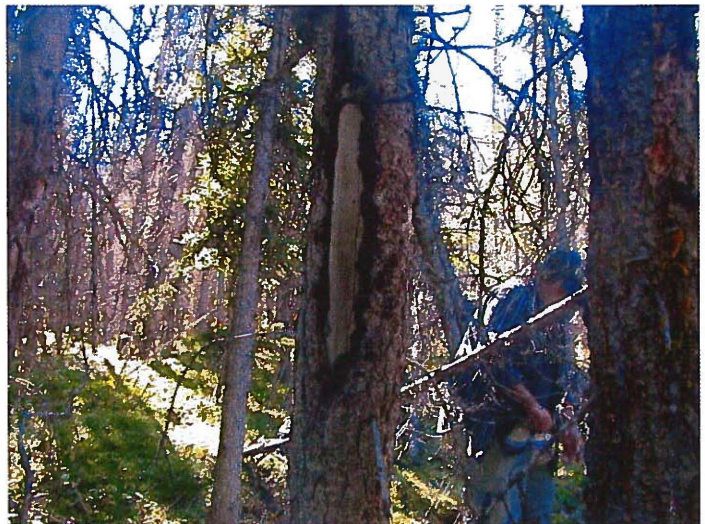
Somewhat in the cover of the trees is the right side of the canyon, or gorge encountered at about the 3500 level of the stream and at the end of the claim boundaries.





Here is the rock pile (?) at about the 3000 foot level on the stream that could possibly be remnants of earlier prospecting activity.

Here is what is most likely an old blaze adjacent to and facing hole 8. Interestingly the blaze faces the creek rather than the other direction, as a trail blaze probably would. There is another old blaze on a larger and older standing dead spruce near hole 1.



Henry Johnson, Dick McKenna and Princess, the trusty bear dog and faithful comrade. Actually there was very little sign of bear or moose. A bison however does seem to frequent the area and was spotted on the last day of the season on the way out.

Dixie Creek

Pictured here are the headwaters of Dixie Creek, actually known as Cripple Creek, a small tributary. The stream picks up water quite rapidly until it all of a sudden disappears into the ground for a while, then where Dixie Creek proper enters it becomes a rapid stream of about 8 feet across and a foot deep.



Looking down from the height of land on the Cripple Creek Pass (a feeder of Dixie) towards Dixie Creek. Dixie Creek Claims are located about ten km. down the valley via a very obscure trail.

Here is the first claim staked on Dixie Creek (P50628) during the 2010 season. The feeder gulch enters the creek from the opposite side just out of the photo view.

