YUKON MINING INCENTIVES PROGRAM

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YMIP PROJECT 99-051

Placer Gold Prospecting HIGH LEVEL TERRACE GRAVELS FORTYMILE RIVER

AUGUST 20, 1999 - JANUARY 30, 2000

TRANSVERSE MERCATOR PROJECTION CO-ORDINATES latitude 64° 14' - longitude 140° 40' PLACER CLAIM SHEET 116C-7

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William Claxton Box 460, Dawson City Yukon, Y0B-1G0 **1. Project Location and Scope:** The purpose of this prospecting project was to prospect the high level terrace gravels in the Fortymile River basin. The Fortymile River is covered on map 116C-7, in both the topographic and claim sheet series. The latitude is approximately 64°14' and the longitude is approximately 140°40'. The Fortymile area falls under the jurisdiction of the Dawson mining district. The location of the property is shown on Map 1.

2. Background: The geology of the Fortymile area is described by Warren Yeend in his 1996 USGS Bulletin 2125 titled "Gold Placers of the Historical Fortymile River Region", as follows: " The Fortymile area, which is part of the Yukon-Tanana Upland, contains quartzite, schist, gneiss, amphibolite, marble, serpentine, and granite overlain by basalt, sandstone, conglomerate, shale tuff, and coal; overlying these rocks are several deposits of varying ages consisting of gold-bearing gravel and colluvium. The close spatial association of creeks containing placer gold and the gneiss, schist, amphibolite, and marble unit strongly suggests this metamorphic unit is the gold source."

The origin of the high terrace gravels which I investigated is unresolved. The USGS believes that these high terrace gravels, located 400 to 500 feet above the valley floor, are non-glacial in origin: "High terrace gravels record a time from the late Tertiary to early Pleistocene when the ancestral Fortymile River and its major tributaries, the North and South Forks, had floodplains roughly 1 to 2 mile (2-3 kilometres) wide and gradients of about 4 feet per mile (0.75 metres per kilometre). Base-level lowering during the post-early Pleistocene caused the rivers to cut into their floodplains and to develop the youthful charactenstics they have today such as V-shaped canyons, narrows floodplains, and gradients of at least twice those of the old river." (USGS Bulletin 2125, 1996)

Placer geologists on the Canadian side of the border suggest that the high terrace gravels of the Fortymile are glacio-fluvial in origin.

"River terraces of the Stewart and Fortymile rivers seem to be good targets for exploration using this model. In each of these areas multiple glaciations have resulted in terrace formation, and each area has supported mining of modern river gravels." ("Sedimentology of a High Level Terrace Placer Gold Deposit, Klondike Valley".

Yukon, Froese and Hein, Yukon Quaternary Geology, Volume 1, 1996.)

Based on the work which I performed, I have formed a conclusion as to the origin of the high level bench gravels in the Fortymile drainage. I believe that these deposits consist of a typical white channel tertiary gravel deposit of considerable depth(60 to 100 ft.) overlain with a layer of fine gravel which is glacio-fluvial in origin. I believe that the in-place tertiary early gravels were inundated with water from melting glaciers, which transported a matrix of fine, loose, poorly sorted gravel, depositing it on top of the white channel gravels.



Photo 1 - This view of the Fortymile River close to the Yukon-Alaska border shows the wide flat terraces located approximately 500 ft. above the valley floor. The watercourse has incised into the these benches forming a narrow flood plain in the valley bottom. The volume of gravel contained in the terraces is immense.

3. Project Approach

In late August I made a trip up the Clinton Creek Road with Bill LeBarge, the placer geologist from DIAND, to discuss the nature and origin of the gravel, and to develop a methodology for evaluating it.

This was a difficult prospecting project for a number of reasons. Because of the age of the high level terraces, and their distance from the active river channel, there were no natural outcroppings of gravel. Additionally, because of their height above the river, these terraces were covered with permafrost vegetation and frozen muck, making it difficult to sample them.

I found that the most productive way to sample these gravels was to prospect in areas were manmade disturbances had exposed them. My approach was to traverse roads which had been built over this high level gravel to obtain access to the river.

4. Areas Investigated and Work Performed

For discussion purposes, I have broken the property down according to the roads and bush trails which I examined in search of exposed high level placer gravels in the Fortymile River drainage.

4. a) Clinton Creek access road

The Clinton Creek access road provided two excellent locations to sample the high level bench gravels. The road traverses a spine composed of this gravel approximately 2½ km in length. This bench is located on the divide between Mickey and Maiden Creeks, approximately 5 km up the road from the Fortymile bridge.

Two borrow pits were excavated on this bench when the road was being built in the mid-1960's. These borrow pits are located on Map A in my diary, and on Maps 2 and 3 of this report. The

gravel in the borrow pits had been excavated to a depth of approximately 20 feet. The gravel is fine and well washed. It has a distinctive orange stain. It consists largely of well washed quartz-rich pea gravel, mixed in with the darker stained gravel.

I took four grab samples from the floor of Pit #1, approximately 20 feet below the original bench elevation. This work and the results obtained are discussed in my diary entry of September 3. Additionally, on September 10, I collected three grab samples from the gravels exposed on the surface of the bench by stripping from the borrow pit. A description of the sampling and the results obtained is provided on my diary entry of September 10 and in Table 1 of this report. The locations in the pit where I took the samples are delineated on Map B in my journal, and on Map 3 of this report .

I dug a shaft in the floor of Borrow Pit # 1. Because of the fine nature of the gravel in the cut, and the lack of significant placer gold showings in the samples which I panned, I was hoping to find coarser gravel, and better pay, deeper in the gravel body. I excavated the shaft as



Photo 2 - Digging a shaft in Borrow Pit #1. The pit face can be seen in the background.

deep as I could without using cribbing (the gravel was thawed) and hoisting equipment. I managed to dig down approximately 7 1/2 to 8 feet. Because the cut floor was already 20 feet below the surface of the bench gravel, the total depth to which I sampled was approximately 28 feet. I encountered a fine white channel gravel approximately 2 feet down in the shaft. I kept digging through this fine gravel and encountered coarser gravel at approximately 6 feet; this gravel had well rounded quartz cobbles to approximately 6 inches in diameter. I took samples as the digging progressed and panned them in the river at the Fortymile Bridge. This work and the results of the sampling are discussed in my journal entries of October 4, 8 and 9. Additionally, I bagged most of the gravel that I excavated in sand bags, so that I could transport them back to my camp at Marten Creek on the Fortymile River for processing in a lab environment. A description of the shafting, the material encountered, and the results of grab samples are outlined in my diary entries of Oct 4, 8, and 9, and in Table 1.

On September 5, I took three grab samples from the floor of Borrow Pit #2. This work is described in my entry for that day. Additionally on September 10, I sampled the stripped area adjacent and behind the borrow pit at the original elevation, taking four grab samples. A description of the sampling and the results are entered in my field book on September 10 and in Table 1. The sample locations are plotted on Map 3.

I dug a shaft into the cut floor in Borrow Pit #2. I encountered very fine white channel sand/gravel at a depth of approximately 1 foot in the cut floor. I dug this shaft down to a total depth of approximately 71/2 feet, taking small grab samples as digging progressed. I took the grab samples down to the Fortymile Bridge and panned them in the river. I bagged up the gravel excavated in the shafts in sand bags, each containing approximately 75 lb. of gravel, so that I could transport this material to my camp for processing. The work which I performed and the results of grab samples taken from the shaft in Borrow Pit # 2 are discussed in my journal entries of October 11, and



Photo 3 - Excavating a shaft in Borrow Pit #2. The shaft is approximately 7 ft. deep at this point.

12, and 14. A map of Borrow Pit #2 and the sample locations are plotted on Map C in my journal, and on Map 3 of this report.

I took samples from Borrow Pit #3, which is located on a lower gravel bench than the white channel deposits (Borrow Pits #'s 1 and 2). This pit is located on a bench which is approximately 150 feet above the river valley. The gravel in this borrow pit is well worn, rounded, and coarse, with much of the gravel consisting of cobbles in excess of 6 to 8 inches. This gravel looks to be similar to that found in the river valley and in the bars of the river. The borrow pit is excavated approximately 8 to 10 feet into the gravel body. I took three large samples in 5 gallon buckets from this borrow pit, one from the pit floor and two from the pit wall. My work in Borrow Pit #3 is covered on my journal entry for September 16. The borrow pit and sample locations are shown on Map G, and on Map 3 of this report. The results from sampling are tabulated in Table 1.

I found an interesting seam of gravel in the cut bank beside the Clinton Creek road, approximately 3 1/2 km up the road from the Fortymile bridge. This gravel was located in a dip in the bedrock. It appeared to be the remains of an ancient channel which had since been scoured and washed away. It consisted of a densely packed dark grey gravel with coarse cobbles of 8 to 10 inches in diameter. The seam was approximately 1.5 m thick and 150 m in length. I dug four samples out of this gravel seam. This work is described in my diary entry of September 6. My work in this area is shown on Sketch 1 in my diary, and the results of the sampling are given on Table 1. The work is shown on Map 3.

4. b) Clinton Creek Mine Road I spent a day on the Clinton Creek mine road looking for high terrace gravel outcrops. I sampled two outcrops along the road. I took five grab samples from these outcrops.

Additionally, I walked up a small tributary creek on Clinton Creek emptying in on the left limit, approximately 5 km upstream. I did not find any bench gravel; however I panned three panfuls of gravel in the cutbanks of the creek.

The work which I performed and results which I obtained are discussed on my diary entries for September 12 and 14. Map D in my diary, and Map 4 appended to this report, plot the location of the gravel which I sampled. The results of this sampling are tabulated on Table 1.

4. c) Bruin Creek Access Trail I drove out the Bruin Creek access trail on my 4 wheeler. This road traverses a high flat bench approximately 8 km in from the Clinton Creek Road, immediately before it starts its decent into the Bruin Creek valley. I didn't encounter any gravel on



Photo 4 - Sampling terrace gravels on Clinton Creek mine road. The layer of terrace gravel can be seen just below the surface vegetation at the top of the bench.

this bench; an unloading ramp which had been cut into the surface showed bedrock directly underneath the soil. I drove the road into the Bruin Creek valley in hopes of finding gravel seams in the road cutbank, at a lower elevation. I sampled two gravel seams on the road; however I do not believe that this gravel was of high bench origin. The area which I traversed and location of the samples which I took is shown on Map E in my journal. A discussion of the work is contained in my entry for September 14; the sample locations are shown on Map 5 of this report.

I used a skidoo to travel to the mouth of Bruin Creek, where a rough trail exists from bringing a Cat and Nodwell mounted drill into the river valley. I had seen in the summer that the ruts in the trail had been washed out. It was my hope to find high bench gravel in these washouts. I walked up the trail onto the high bench approximately 500 feet above the valley floor. I dug around in these ruts with a shovel, but did not encounter any gravel. On my way back to camp I took a sample out of the gravel bank at the mouth of the creek. This prospecting work is covered in my journal entry of November 16 and on Map I of my journal. The results of this sample are given in Table 1 and the sample location is shown on Map 5 of this report.

I attempted to reach the high bench gravels on Bruin Creek by taking my snowmachine up the creek approximately 4 1/2 miles and then up the Bruin Creek access road (which I had driven

down in the fall with the 4 wheeler). My intention was to follow the old drill road back to the Fortymile River along the high bench with the hope of finding some exposed gravel in runoffs or clearings along the drill trail. Unfortunately, deadfall across the trail from a previous fire made access too difficult along this route and I had to turn back after approximately 1½ km. My journal entry of November 23 and Map K discuss this work.

4. d) Brown's Creek Access Trail from the Top of the World Highway I drove out the Top of the World Highway to the Brown's Creek access trail, which provides access into Brown's Creek along the Brown's's Creek/Bruin Creek divide. This road proved to be too rough even for the 4 wheeler, so I turned back after approximately 8 km. I decided it would be better to gain access to the high bench gravels along the Brown's Creek/Bruin Creek/Bruin Creek divide after freeze up when I could travel on the river and the creek.

I travelled by snowmobile up the Fortymile River and then up Brown's Creek to the Brown's Creek access trail. I travelled up the road for approximately 1½ miles. I gathered three sand bags full of gravel which I retrieved from the cutbanks in the road and brought them back to camp for processing. This work is outlined in my journal entry of November 17 and the accompanying Map J. The results of the sampling are given on Table 1. The sample locations are plotted on the attached Map 6.

4. e) Fortymile River Access Trail on Sparks Creek/Marten Creek Divide This access trail traverses a high bench immediately before its decent into the Fortymile valley. I remember uncovering some high bench gravel when I cleared a staging area for assembling equipment at this point several years ago. I managed to get the snowmachines up to this clearing after cutting some leaning trees out of the way. I used a propane torch to thaw a shallow pit in the exposed gravel and I filled two sand bags with approximately 40 lbs. of gravel each. I also collected one small (8 lb.) grab sample. I hauled the samples back to camp for processing. This work is covered in my diary entries of November 12, 13, and 14. Map H show the location of the work. Results are located on Table 1, and on Map 6 of this report.

4. f) High Bench on the Brown's Creek/Montgomery Creek Divide I travelled by snowmachine on the river from camp at Marten Creek, up to Montgomery Creek, a distance of approximately 14 km. I looked for high bench gravel outcrops along the river between Brown's Creek and Montgomery Creek, but did not find any. I walked up Montgomery Creek for a distance of approximately 1½ km looking for high bench outcrops along the valley rim, but was unsuccessful. I took three grab samples out of the creek bed on my way back to camp. My diary entry for November 24 and Map L discuss this work. The results of the sampling are given on Table 1. The sample locations are plotted on Map 7 of this report.

4. g) Dome Creek, Alaska I made a trip to across the border to Dome Creek where there is an active high bench placer operation. My intention was to obtain gravel samples from an operating high bench mine on the Fortymile River in order to compare them with the gravels which I was investigating on the Canadian side of the border. Unfortunately, The owner of the mine was not at the site when I visited it, and signs on the property made it quite clear that trespassers were not welcome. Therefore I was not able to obtain any samples. I did however, observe that the gravel being mined was a compacted white channel deposit approximately 65 ft. in depth. It looked similar to the gravel which I was investigating in the borrow pits on the Clinton Creek Road.

5. Summary of Results

The work which I performed and the sampling which I undertook in the high bench gravels of the Fortymile area showed that these gravels are auriferous. While the samples which I took did not turn up any paying propositions, I do not think that this is discouraging. Because these gravels consists of a tertiary white channel structure (at least in the Clinton Creek Road area), it is to be expected that, if there is pay gravel, it would be encountered in the gravel depths on and just above bedrock. R. G. McConnel in his *"Report on Gold Values in the Klondike High Level Gravels*" of 1905, has shown that gold in paying quantities is found in the lower six feet of the gravel. For example, the bottom six feet of gravel in Trail and Lovett Hills average \$4.13 per cubic yard (with raw gold valued at approximately \$16 per ounce), while the overlying 144 feet averages approximately only 2¢ per yard.

I transported the bags full of gravel which I excavated from the shafts in Borrow Pits 1 and 2 back to camp for processing. I made 2 trips into camp, hauling a total of 33 bags of gravel, each weighing approximately 75 lbs., for a total weight of approximately 2,500 lbs. I processed this gravel using the following methodology:

- I concentrated these bags of gravel down using a long tom. I obtained one batch of concentrate for each two foot depth in each of the two shafts.
- From this 2,500 lbs. of gravel I ended up with 8 bags of concentrate, each weighing approximately 6-8 lbs.
- A processed each of these bags of concentrate through a gold wheel to further reduce the volume.
- I dried the concentrate obtained from the gold wheel and removed the magnetic black sand with a magnet.
- I spread the small amount of gold and non-magnetic heavies onto a gridded sheet of paper and counted the number of colours. I then separated the colours out by hand and saved them.
- I combined the colours, so that I would have sufficient weight and weighed them using a gun powder scale.
- I amalgamated the tailings from wheeling the concentrate in a 5 gallon bucket; I mixed approximately 1 teaspoon of mercury into the tailings using a dry wall mixing paddle attached to an electric drill for approximately 1 hour. I then reran this concentrate through the gold wheel to retrieve the mercury to which any free gold would be adhering. I poured the resulting mercury into a crucible button and burned it off outside using a propane torch. There was no residual gold left on the button, indicating that I had not lost any gold in the concentrating procedure.

The gravel which I collected from the shafts that I excavated in Borrow Pits# 1 and 2 allowed me to calculated the value of the white channel gravel which I sampled. This calculation is performed on the last page of my diary and is recounted as follows:

I have used the following constants:

- I collected approximately 2,500 lbs. of gravel from the shafts.
- There are 480 grains in 1 troy ounce of gold
- There are 3,300 lbs of gravel in one bank cubic yard of gravel

- I retrieved 119 colours from this gravel
- The weight of the gold which I recovered is 0.3 grains
- 1 ounce of placer gold is worth \$315CAN (allowing for impurities, melt loss, etc. @\$285US)

I calculated the value of the per cubic yard of this white channel gravel in the following manner: 119 colours weigh 0.3 grains

If one ounce of gold is worth \$315, then 0.3 grains is worth \$X. \$315/480 grains = \$X/0.3 grains X=\$0.196 0.3 grains of gold is worth \$0.196

lf 2,500 lb of gravel is worth \$0.196, then 1 cubic yard is worth \$X \$0.196/2,500 lb = \$X/ 3,300 lb X= \$0.26 1 cubic yard of gravel is worth \$0.26

I have calculated the number of colours of this white channel gold required to make up one troy ounce of gold as follows:

If 0.3 grains of gold = 119 colours, then 480 grains = X colours

0.3 grains/119 colours =480 grains/X colours X= 190,400 colours

190,400 colours from this white channel gravel make one troy ounce of gold

For evaluating samples of this gravel in the field, I have calculated the value of one colour of this white channel gold.

If 190,400 colours are worth \$315, then 1 colour is worth \$X.

\$315/190,400 colours = \$X/ 1 colour X= \$.00165 or 0.17¢

One colour of this white channel gravel is worth 0.17¢

I obtained occasional colours in other sampling which I did in the high bench gravels, but nothing that I found could be considered a paying deposit. Given that this high bench gravel appears to be covered by loose fine, poorly sorted glacio-fluvial gravels, this is not surprising. I think that if these benches were excavated into the underlying white channel and to bedrock, that gold in paying quantities could be encountered. The results of my grab samples are given in the accompanying **Table 1**. The results of the bulk samples obtained from the shafts which I dug in the Borrow Pits on the Clinton Creek Road are shown on **Table 2**.

6. Conclusions and Recommendations

The nature of the high bench gravel deposits made prospecting difficult. While I was able to gather some surface samples from exposed gravels in road beds and stripped areas, I was not able to sample any of this gravel at depth, with the exception of the borrow pits on the Clinton Creek Road. For this reason I concentrated most of my evaluation work to borrow pits which had been excavated in the high bench gravel in the vicinity of the road. While I was able to sample to a depth of approximately 25 to 30 feet in these borrow pits, I believe that the white channel deposit is very deep. White channel gravels, in the Klondike region, range from 30 to over 150 feet deep. Judging from the hillside slopes in the area of this white channel gravel, I suspect that the depth to bedrock is somewhere between 60 and 90 feet.

Although the gravel in the borrow pits is deep, I believe that it could be mined efficiently if sufficient pay grades are established. Because this white channel gravel body forms a long peninsula approximately 3 km long and 0.5 km in width on the Clinton Creek /Mickey Creek divide, stripping the deposit could be done cheaply. Waste gravel could be pushed off of the two downhill slopes cost effectively. Once the pay gravel is exposed, water could be obtained from Mickey Creek via a

pipeline, providing makeup water to a recycle gravel processing operation. Alternatively, pay gravel could be trucked downhill to the Mickey Creek valley immediately below the bench for processing. Because of the cemented nature of the gravel and because the lower depths are probably frozen, consideration could be given to employing underground mining methods (similar to those used on Jackson Hill in the Klondike region).

While the upper layers of white channel gravels of the Klondike district are essentially barren or very low grade, the layer of gravel on bedrock is often exceptionally rich. For example, McConnel has established a value of \$4.13 for the bottom 6 feet of gravel on Trail and Lovett Hills. This is equivalent to 1/4 ounce of gold per cubic yard in today's prices. Similarly, Yeend's's description of the values found in high level terrace gravel on the Alaskan side of the Fortymile suggests that further exploration to bedrock of this deposit is warranted. This particular deposit has good road access, and because it is not in the immediate proximity of any creeks, environmental issues related to its development should be minimal.

I have calculated that there are approximately three million bank cubic yards of gravel contained in the lower two metres of the borrow pit deposit on the Clinton Creek Road. The potential of this deposit is enormous. I recommend a preliminary exploratory drilling program to establish depth to bedrock and to obtain an initial analysis as to the gold values in the 2 to 3 metres of gravel overlying the bedrock. If paying gravel is found at depth, infill drilling should be preformed to confirm the deposit.

Area	Sample #	Weight In Ibs.	# Colours	Comments
	1.03 09	8	0	no heavy concentrate
	2.03.09	8	0	n
	3.03 09	8	0	"
	4 03.09	12	0	little black sand
	5 10 09	8	3	very fine colours, some black sand
	6 10 09	8	0	
	7 10 09	8	0	
Clinton Ck. Road	1 04.10	8	0	surface shaft
Borrow Pit #1	2.04.10	10	0	1' down in shaft
	3.04.10	16	1	2' down in shaft, very fine colour, hardly any concentrate
	4.04.10	8	0	4' down in shaft, 1/4 teaspoon concentrate
	1 08 10	9	0	5' down in shaft, fine gravel, quartz chips
	2 08 10	2 x 8	0	6' down in shaft, trace black sand
	1.09.10	8	0	7.5' down in shaft
	2.09 10	8	1	7 5' down, fine colour
	3.09 10	8	0	7.5' down
	1.05.09	10	0	no heavies
	2 05 09	8	0	some small garnets
	3.05.09	Ź x 10	2	fine colours, some black sand, coarser gravel
	1.10.09	2 x 8	1	very fine colour
	2.10.09	10	0	
	3.10.09	8	0	
Clinton Ck. Road	4 10 09	9	0	
Borrow Pit #2	1 11.10	8	0	taken from surface of cut floor
	2.11.10	8	3	taken from 1' down, very fine colours
	3 11.10	9	0	taken from 2' down
	4.11 10	8	1	taken from 3' down in shft, very fine colour, no heavies

Table 1 - Results from Panned Samples

	Table 1 -	Results	from	Panned Samples (cont)
Area	Sample #	Weight in lbs.	# Colours	Comments
	1.12 10	8	0	taken from 5' down in shaft, coarser gravel
	2.12.10	9	0	taken from 6' down shaft, i/4 teaspoon of blacksand
Clinton Ck. Road Borrow Pit #2 (Cont)	3 12 10	2 x 9	2	taken from 8' down, very fine colours, some black sand and garnets, coarser gravel
	1 14 10	8	0	taken from 5' down, from shaft wall
	2 14 10	2 x 8	1	from shaft wall 6' down, small flake, coarser gravel
	3.14 10	10	0	from 7' down in shaft wall
	4 14 10	2 x 8	2	taken from shaft floor, 1 small flake
	1.06.09	10	0	taken from bedrock /gravel interface
	2 06 09	8	0	taken from 2' above bedrock
gravel seam in Clinton Ck Road cut bank	3.06.09	8	0	taken from 3' above bedrock in coarse cobbley material
	4 06.09	10	2	taken 1' into bedrock, very fine colours, some black sand
Borrow Pit # 3	1 16.09	65	1	fine colour, coarse rounded washed gravel, approx 1/2 teaspoon black sand & garnets
	2.16 09	50	1	microscopic colour, some black sand & heavies
	3 16.09	75	0	very little concentrate
Clinton Ck. Mine Road	1 12 09	9	0	taken from top gravels of seam
	2 12 09	8	0	taken approx 2' down in gravel face
	4 12 09	8	0	taken 2' down in gravel, no heavies
	5.12.09	8	0	same gravel seam at bedrock contact
	6 12 09	9	0	sample taken just below overburden gravel contact
	7 12 09	10	0	taken in cut bank, trib., 1/4 teaspoon blacksand quartz chips
	8 12.09	12	1	approx 250' up upstrm from conf. behind big boulder, very fine colour
	9 12.09	12	2	

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Table 1 - Results from Panned Samples (cont)

Area Area	Sample #	Weight In Ibs	# Colours	Comments
Bruin Creek	1.14.09	9	3	
Access Trail	2.14.09	8	0	taken from hillside runoff guich
	1 16.11	8	2	nice flakes +60 mesh
Brown's Creek	1.17.11	42	0	
Access Trail	2.17.11	33	0	
	3.17.11	36	0	
Sparks Creek/	1.13.11	9	0	some black sand
Marten Creek Divide	1.14.11	40	1	fine colour, 1/2 teaspoon black sand/heavies
· · · · · · · · · · · · · · · · · · ·	2.14 11	42	1	fine colour, 1/2 teaspoon black sand
Brown's Creek/	1.24.11	8	0	no concentrate
Montgomery Ck.	2.24.11	8	0	
Divide	3 24.11	8	0	

 Table 2

 Results from Bags of Concentrate Processed from Borrow Pits

	Sample #	Depth	# Colours	Comments
Borrow Pit #1	bag 1	0-2 ft.	1	fine colour
(Clinton Ck Road)	bag 2	2-4 ft.	10	approx 1/2 cup of black sand and heavies
	bag 3	4-6 ft.	12	1 flake +30 mesh, approx 3 tsp blacksand & heavies
	bag_4	6-7.5 ft	17	some nice flakes, approx 1/2 cup heavies
Borrow Pit #2)	bag 1	0-2 ft	15	6 nice sized flakes
(Clinton Crk Road	bag 2	2-4 ft	12	1 flake =30 mesh
	bag 3	4-6 ft	20	4 flakes
	bag 4	6-7.5 ft	32	7 flakes

Each bag of concentrate was obtained from approximately 4 sand bags full of raw gravel excavated from the shaft. (Each sand bag contained approximately 75 lbs. of gravel.)

Total weight of gravel process was approxiately 2,500 lbs.

-3 bags + sond bags = 32 bags × 75 ~ 2400 lbs

Addtional Information

People who worked on the project William Claxton

Leslie Chapman

Dawson City Dawson City

Area Investigted

Fortymile drainage high gravel level terraces, located on claim sheet 116C-7

Report Preparation

William Claxton and Leslie Chapman prepared the report in 30 manhours.



MAP 1 - Project Area Location (from "DAWSON" Map Sheet 116B & C) scale 1" = 6 miles (approx) page 14



MAP 2 - Key for Sample Map Locations scale: 1"= 2 miles approx. page 15







scale : 1" = 1/2 mile approx.

page 17



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MAP 5 - Bruin Creek Access Trails - Sample Locations scale: 1" = 1/2 mile approx.

page 18



MAP 6 - Brown's Creek/Spark's Creek Trails - Sample Loctions scale: 1" = 1/2 mile approx. page 19



MAP 7 - Montgomery Creek Terrace - Sample Locations

scale: 1" = 1/2 mile approx. page 20

Appendix - Prospecting Journal

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clear, water ~ 710 Travelled along The inton Greek, road ~ Paul Lebarrage. wu colouist DIAND ia a * and t77774 me Bridge p Apparta 7 miles up fill frances that o exposed an borrow pite in tour. trant 1 Los to auch taxes in D hut the part floors do not appear to he in



3 This may be original usu gladial tertiar Albiof thris offered is approx 500-600 above The valley Hoor Cheated out appred gravel in anistner borrow but apprex 1/2 miles from brake This gravel is more like him bad Cut bourt approx 10 high noton bedrock.



warm. CONTROL FJ-0309 drab sample Froncent About VBUS <u>ا آ ا</u> Ocaours youres # 20300 cirabson cut floor ~ 816. 030 and sample approx 12 using OCAS, noheares colo. loule blog





0) GEPT. 5 Cloudy - growers - worm tompting Battow fit 2. from floor of borrow 1 reduch candid ie grave JCOLD instruing heave From Ploor of pit, Same type of ground Octo come inalligations Sample#3.0509 2 babys ~ 10/12 cach from 'cu pit floor (dug into colobles ~ 60 colour some from top of dist take



Walked along hillside on marden creet dramade trying growel in being no outcrops of no gravel ground is fl & covered with aske trees dug into lai Mr. 2 locations, no gravel or rock encound

Sept 6 clear N+10% upling in gravel ong side of road, alinton coele bridge (Cut Bank 4, MAPA) arriver Seam is about -S' thick witha and coarse matrix most of the grand readest stand The abuel is resting on a crubby graps ust: overbuildern spring planel U 5ample, 1.06,09 pavel interface ~ 1016



Gample 2.06.09. taken approx 2' above br ~ Bilo Ocols... above lation coas above lation coas colobly mart ten approx 1 sed roct ~ ~ 10 Veryfine com

douty wice Sept 2. - part took sample Patrimule Bridge samed their Gre result i unna a pagesof and when Th cantin les wer

Fork grandsamples non topopaurus . stropped area The borrow put time, oudised (re are with que abit of quar se main C for uple locat SAMPLE 1.10,09 - derader fine stuff took 2 Junple bags 28/60 ELMPLE 2.10.09 - Sample talenat norneria of stripping lini Way ~10) colour



bel PESULTS - Sveryfine colours Sample 6,10,00 7001 · , coarser] 2005; O little conte 10.00 Le d



Sept 11 serving ~ 10. drac wis cutto 100 34 (\mathcal{M}) dC. valley is ~ ONOUN ê. . __ lej A 4 (a) 7 01 (SOL



Sept. 12 rice clear daily ~+8 drove up & chilton men attoin Compat 4 wheeler at ramp Comping 1. R. 109 Eaupte taken from to particle of exposed min seam of centre angular gravel a 3 thick approx 9 16. from same graved For approx 2' docush, ocoto,

TOWA GRANN DAULA F

Walked up side, ored Approx 6 kins upstrea from the gounte brid N OT tron uplines, took Earnaples us ateek # 7.12,09 taken in a k approx 100'thom using ~10Ho Small Struck pins cds ~1/4top black sound, confoundet - and branc 12 SD up trom court in creek bed a low I have + 12tho I very fine colour



Sept 14, meeday, clear -13 moles a Cluston - Deares oaces o en renal added 4 wheeler on eup Edrove out T 1 Creek road 20 to rue. n creck road miles trous approx le bridge) unlos Romin Road vie creek (approx)



Sept 15 - anny day - 103° loaded four wheeler onto the pickupt drove out to this prove out to this Unloaded the 4 wheeler on a truck unloading 1 tasing at the time doesn't look like been any praffic on of ruti but the hed us acculated Used Surde Sol ing_ Swart over rood dial on 6-8kenin Too







33 Drove out from town ordene on 40m TUCX ~ 6 rele of ce and gravel fine oblarie about 1/2 top of



(35 atty doudy windy ~0% C nes me comile turer Lesse 51 7_04 00 , 101100t t



Oct & putting doud ~ +26 Levone 07 oppression the shaft HELAH HAA 10, prinne B-2119 - ollo taken approx 5tde O COLORIAN, white ch - 2120 - 2 CB, 10 black saily

Oct 2, cloud C1 AD Œ . 400 600 673 VODE NT. SLAR upone -C んで 21 W/D/DIZELLe 1 °r: t: LALA 12122 12 معن _ *a*fe 5 hags vollo for



from surface & at 1,2,3, At Drove Soundo the fortymite bridge to pain samples from forday and also goods barrystes from Oct 3 (samples from Sampe 1,11,10 telen from surface of cuttion olloapprox. Ocolows Jenne Z. W. 10 Fro 8-9/6



50 ple 2.12 0 P-oto the shaft in Morrow 2 2 A 21105 DIDFOX $(b) \alpha$ Colours, a /4 test Ma almon 6', and O sie 3.1210 Drove down c loruble to ba banyole the late se 4 iture color O colours ion - sound a

. . 🦛 la col Gu Gravel here



Sample 3.14-10 Jaken from 5 ~ 1016, courserwat O colours notheares Samirae 4.14.10: Reten from Shaft our zhoas ~ Bllo L'ederen (1 queal flater Banges up KAGULA LES CONTAR our the slice n gamit bonds for trainsport Dear

2 Clouds 5 Fires in actors the contor - ALLING C

may gran - Class ربي t is getting be a proplem ALT LOL OF some wood etc The creek to للشتك and an Oct 17 LODGE TAJ to Chilling in A BULLARS **10**. Re OR taist (approx 0:10 de the pickup here Throng Drove out to porrow to pick up had 22 5005 approxim site 500 163.

Oct 18 cloudy subwingals ing call the indoaded the from the process tor traces sind he , torici >> lici roo ce Bot the 4 carlies ver tothe is 100 very maina li to rak up 2 house ou rain dur to the declary A, VThe with The crowing us annier (2 trips) is weather with mostes evenine Sot ups Th Tour on bet up princip cana The creat 1 i lalid onit Chopped a note The ice & got tem discussion in the second to process the lonna thomas that trouble getting pier phose inside to that going, arales in the

Hab . orocebs when processed fails of The bays (21 total. from BORTON PUTZ in Fsepense trainches, accordin to deptin! -Patien 1 - 0-2 Batch 2 - 2-41 Bastell 3 - 4 - 61 Batch 4 6-72 pulled masks after earon batin runs vanised them in a tulo \$ 5000 concer trate in a large zip: lock body which 1'labelle



55 Henles pump hose 4 ice mats to the torolessung site unter all of the graved back outo the & wheel & hauled Themover, to the long tow & trips started brocks ung the bags of gravel through the long tong at gipport 2 pm, Hundring manes we the dark @ about 8 pungers une The prek-up handlight for alumination Processes and bags from mines for pit 2 Abatches abatch for some 2' of depth.



22. Clearast moriant and we set it condentrate, redup feel pais of water up from ne river for process 14. 17 M Processed concentrate obsammed from long tom in Borrow Pit P-MAPL . RESULTS BAGI this is from the creation Q-2 deep very fine color



Nov. 4 Oleur, cold - 27 o water bar t tees processing with M . Se **Ne** utrate would েগ্ৰ BONTOW att. HORDON P



Severaldals AC DCIC lade 17/Mile \mathcal{O} O DO)

60 2 clear Alous - 122 Broke a trent ou to cut the print whe and comes the Settines of the R & 20 (F.C.) σ 1. Kod State TOC C treath and توجيجته



Nov 13 Cloude **|**/ Ξ: con' a TUC 25 زوي S on T tion OUS U ree a gravel tom ot 5 B anned grais into a

62 founded) රාත් 1001 A hours more - 12' -acresice in VOS SO AIXIDO

0 Opprox 1/2 At Ceta NOU 16 - party do







· • ,• . ***** group m op: top desMy ochurs [O Part -Jove Lover -1.00 7 (ND) - mmm Przel YM ÷....



NOV. 24 sun/doud ~ - IBC Role the show marchine upriver of sport 15 km to andron 0 remain graveron the tum 23 mund in the و 1944 - الأسر 1944 - الأسر hend that www.slope LAL LA is was lar poorh Orste 33 9



K Nou 25 - maiday øe 000 Hiside to start for processing) Ş.

×., Nov of cloudy = 15. NP The Started process have been collect Preessed the 2 bags or Nov 1214 recorded texuts on the diany page for NOV A. JOU 30 clear adder - 30° here the aravel ed trank Bru A texili o terester Nov16 entr



This betty wel ps up very project Dec 4-5

EVALUATING GRAVEL FROM SHAFTS IN BORROW ATE 1-42 119 colours wergyn. 3gn How many cots/03? 19 colle there are 190900 colls / 62, 10 placer of al 150 2091 - 300 x= 1,196 = 3 gu of gold are worth = 20 1 obtamed 20 worth of gold Grown 2 500 110 if I cy yo of bank grand weights 3200 There is 2200 . 75 cup of oppiel 250014 a course these shouth