YUKON TERRITORIAL GOVERNMENT
EXPLORATION INCENTIVES PROGRAM
PROJECT 94 - 018

PLACER EXPLORATION ON

MARTEN CREEK

JUNE 8 - DECEMBER 1, 1994

PLACER CLAIMS P21203 - P21212

TRANSVERSE MERCATOR PROJECTION CO-ORDINATES
$140^0 40'$ - $64^0 17'$ latitude
PLACER CLAIM SHEET 116C-7

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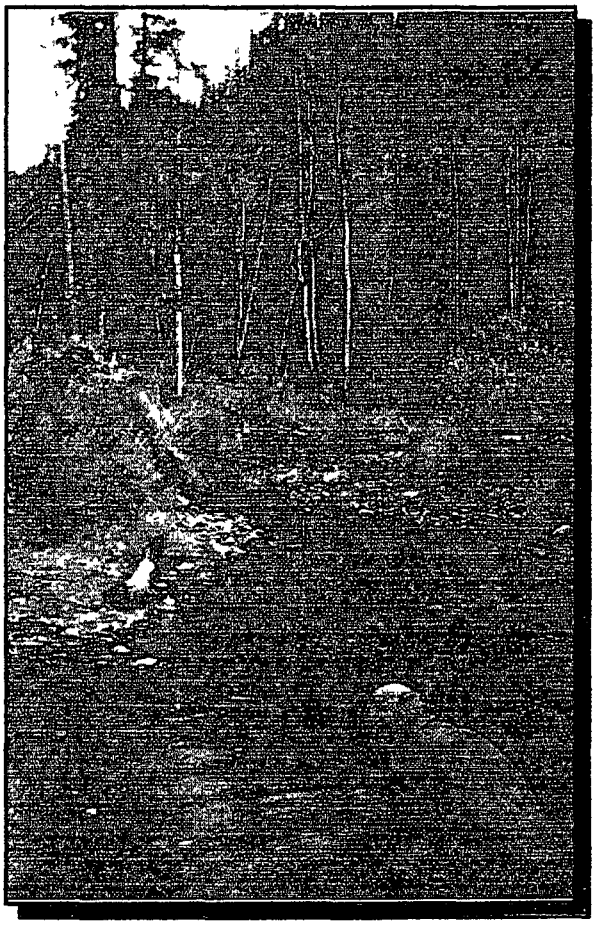
1. BACKGROUND

Marten Creek is a left limit tributary of the Fortymile River. It flows into the Fortymile River approximately 15 miles above the confluence of the Fortymile and Yukon Rivers. The property is located approximately 40 air miles northwest of Dawson City See Map 1 for the property location.

There is good road access to the property from Dawson City, via the Top of the World Highway and the Clinton Creek access road. A dry weather bush road from Clinton Creek provides access to Marten Creek. It takes approximately 2 hours to drive from Dawson City to Marten Creek.

The property consists of 42 placer claims covering approximately 4 miles, the mainstem of Marten Creek. The portion of the creek investigated in this project is the area covered by claims P21203 - P21212. These claims are plotted on Map 2, the claim sheet for the area.

Marten Creek flows in a narrow valley, varying from 50 to 200 feet in width. The aerial photo on page 13 shows the terrain of the creek drainage. The width of the creek channel varies between 8 and 15 feet, depending upon rainfall. The grade of the creek is moderately steep. Much of the valley is in permafrost. Vegetation is mainly moss and scrubby black spruce with alder and willow along the sides of the creek channel. There are a few stands of larger spruce trees.



Marten Creek Valley

Marten Creek had many claims staked along its length in the early part of the century, according to the mining records in the Whitehorse archives. It was formerly known as Log Cabin Creek because there were many miners' cabins on the creek There is evidence of historic mining activity, such as old shafts with windlasses and tailings, and open cuts. Marten Creek had a reputation as a coarse gold creek. Reportedly, miners were unable to drift extensively from their shafts due to

pockets of gas and thawed ground that they encountered. The creek was drilled in 1964 by a prospector from Whitehorse, but we do not have access to his results.

We have done some previous exploration work on the property. This work consisted of excavating pits and sampling gravel from although them Results were encouraging in that placer gold was obtained, gold presence was not consistent in all of the samples. One excavation yielded some pieces of coarse gold, over 14 mesh

Marten Creek was previously classed as a Type 5, or unclassified stream, and was therefore subject to the strictest standard of mining regulation. We applied in 1992 to have the classification changed to a Type 4, mining stream, and the Yukon Placer Committee has approved this reclassification, allowing for a discharge of effluent

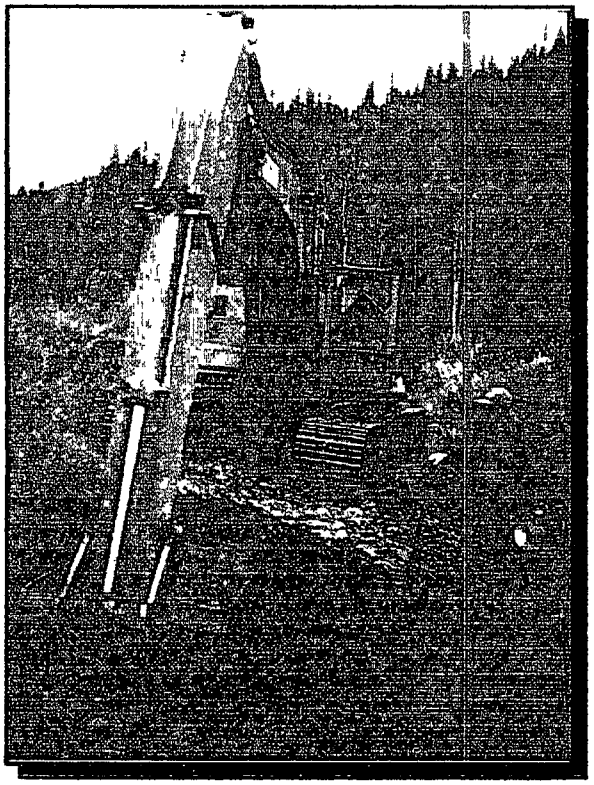
2. PROJECT DESCRIPTION

The focus of the project was to follow up and build on our previous placer exploration work. This work had shown that the gold is not evenly distributed and that it is likely to be coarse. Previous work also revealed that most of the creek valley is in permafrost, although the gravel in and adjacent to the creek channel is not frozen.

Because the valley is steep and narrow, we realized that, in mining the creek, there would be problems with tailings disposal, settling pond room, and disposal of stripped waste. In order to deal with these problems, we planned to evaluate the creek with the intent of setting up a dredging operation. With dredging, tailings disposal and settling pond construction could be achieved cost effectively in the limited space available. Our plan was to sample the thawed ground within and next to the creek channel. If the ground proved viable, we could strip the overburden along the sides of the creek to encourage peripheral thawing. We could then mine the existing creek channel and adjacent thawed gravels.

First we brushed out cat trails with a dozer on the claim block being investigated to establish access for the excavator and other equipment. We brought the excavator onto the property and dug a pit in a dry side channel of the creek bed. We sampled this pit using a gold pan as excavation progressed. Because the coarser size of the gold particles makes it less likely that any one small sample will have gold present in it, we realized that larger sized samples would give more information. For this reason we also took nine 100 lb. samples from this pit, and processed them with a spiral gold wheel.

We dug a series of 5 more pits to bedrock in the thawed ground adjacent to the creek channel. We excavated these pits over a 1500 ft. length of the creek valley. We sampled these excavations with a gold pan as work progressed. We ran larger bulk samples of 10 yards each from these pits, and from the first pit, to get more accurate information about the grade of the ground. See Map 2 for the bulk sample locations.



Excavating a Sample Pit

We processed the bulk samples using a small screening/sluicing plant. Tailings were removed using a front end loader. We recirculated process water for these tests by directing waste water into a test pit and pumping water to the plant from it. We used the excavator to dig the gravel from the creek bed. We dumped part of each excavator bucketful into the bucket of the loader, until the loader bucket was full. In this way a more representative sample of gravel was obtained than if all of the gravel excavated in one excavator bucket were processed. We used the loader to transport the gravel and load it into the hopper. Three loader buckets are required to fill the hopper which holds 5 yards. When the hopper was full, we started the plant and processed the material. Two hopperfuls, approximately 10 yards, comprised one bulk sample. We cleaned up the sluice boxes after each sample run, and processed the resulting concentrate using the spiral gold wheel.

All of the pits in the creek channel were subsequently back filled, to ensure that no fish could be trapped in them as the creek level dropped and froze up in fall.

3. EQUIPMENT USED

We used the following equipment to execute the project:

- D6-C Caterpillar dozer with angle blade and ripper was used to open the access trails on the property, to strip test sites and to move the processing plant. It was also used to level and restore the test area after the work was complete.

- UH10 Hitachi excavator, equipped with a 1 1/2 yard bucket and a 12 ft. 5 inch arm, was used to excavate the test pits and for restoration work.

- 920 Caterpillar loader was used to transport gravel to the process plant, to remove tailings from the plant, and for general duties.

- screening plant with a 5 yard hopper, a 4 ft. x 5 ft. vibrating double deck screen deck, and a 12 ft. long x 2 ft wide sluice run equipped with expanded metal and nomad matting, was used to process the bulk samples. Power was supplied to the plant and a 4 inch submersible pump by a 35 KW., 3 phase, 230 V. generator.

- 4x4 ATV was used to transport personnel, light equipment, samples and for general project support.

- 4x4 service truck complete with tools and welder/generator was used for general maintenance and repairs

- 1 ton fuel truck was used to supply fuel to the equipment

- 4 lead spiral gold wheel, and other various gold recovery and cleanup equipment were used to process the samples and the concentrate obtained from the bulk samples.

4. RESULTS

The results of this target evaluation work in lower Marten Creek were encouraging. The work has confirmed that there is coarse gold present. Since the grain size of the gold is, on average, relatively large, evaluation of the exact value per yard of the ground is difficult to determine. The average grade for the six bulk samples is 102 loose cubic yards per ounce of gold recovered.

We have had the gold from Marten Creek assayed by Engelhard Industries. The purity factor of the gold is 84 This is the same purity as the gold from the Fortymile River.

There is little muck overlying the gravel, from 0 to 2 feet, and vegetation is not heavy in most places, making stripping easy. The top gravels, up to 8 feet, are raw and angular. This gravel is almost barren of gold. Underlying this angular gravel is a layer of more rounded and sorted gravel that extends to bedrock, usually 4 to 8 feet in depth. There is gold present in this gravel. Gold distribution is spotty and is principally concentrated on bedrock. Because the valley is narrow and steep, the pay streak is confined. Since some samples were

successful and others were less so, we concluded that the pay streak does not necessarily follow the present course of the creek, and that it is probably not continuous.

5. CONCLUSIONS AND RECOMMENDATIONS

We believe that the ground tested would support a mining operation. We think that it would be feasible to dredge only the thawed portion of the creek valley, because it appears that enough of the paystreak lies within the thawed creek channel to make mining viable. The thawed section of the valley is approximately 50 feet wide and could be widened to 75 or 80 feet in width if the ground was stripped and exposed. Because dredging is so cost effective, sections of low grade ground could be handled inexpensively, while the high value ground would ensure profitability. If stripping of ground adjacent to the creek channel is performed well in advance of mining, at least two seasons, a considerable width of the valley could be processed In this way, the pay streak would be less likely to be missed.

Based upon the work that we have done, we expect an over all grade average of approximately 1 ounce per 102 loose yards. We estimate that dredging costs, including stripping, for this ground would be approximately $1 per loose yard. The 1/4 mile section of ground that we tested should be dredged to test the viability of the remaining 4 miles of creek.

Based upon a grade of 1 ounce of raw gold in 102 loose yards of gravel, we have calculated the reserves as follows:

Proven reserves available -

This ground consists of the 1500 feet of creek valley over which pits were dug.

15' depth x 75' width x 1500' length = 1,687,500 cubic feet

1,687,500 cubic feet x 1/27 x 1.25 swell factor = 78,125 loose cubic yards

78,125 cubic yds/102 yds. to the oz. = 766 ounces of raw gold

Probable reserves available -

This ground consists of the 7 claims immediately upstream of the 3 claims that we tested. We are confidant that because the creek valley is similar in this section of ground, the values would be similar, or possibly better, because of the gulch that feeds into Marten Creek in this area.

15' depth x 75' width x 3500' length = 3,937,500 cubic feet

3,937,500 cubic feet x 1/27 x 1.25 swell factor = 182,292 loose cubic yards

182,929 cubic yards/102 yds. to the oz. = 1,787 ounces of raw gold

Possible reserves available -

Possible reserves in the remaining 32 claims can be calculated, but more work would be necessary to confirm the grade of the ground and the volume of gravel available. We have assumed the same valley width from interpretation of topographic maps and air photos, but have assumed a shallower depth of 12 feet of bedrock

12' depth x 75' width x 16,000' length = 14,400,000 cubic feet

14,400,000 cubic feet x 1/27 x 1.25 swell factor = 666,667 loose cubic yds.

666,667 cubic yards/102 yds to the oz. = 6,536 ounces of raw gold

TABLE 1
RESULTS OF GOLD PAN SAMPLES FROM EXCAVATION A

EXCAVATION #	SAMPLE NUMBER	DEPTH IN FEET	# OF COLOURS	COMMENTS
	A-1	surface	0	angular gravel
	A-2	2	0	broken schist
	A-3	3	0	angular gravel
	A-4	4	0	little black sand
	A-5	5	1	fine colour
PIT	A-6	8	0	rounded gravel
	A-7	10	0	little black sand
A	A-8	11	0	
	A-9	12	1	angular raw colour
	A-10	14	0	black sand
	A-11	15	2	flaky colours, rusty

Grade figures have not been calculated from these results. The samples are not large enough to provide accurate grade projections. We used a small, 10 inch gold pan which holds approximately 8 - 9 lb., heaping full

TABLE 2
RESULTS OF 100 LB. SAMPLES FROM EXCAVATION A

EXCAVATION #	SAMPLE #	DEPTH FEET	# OF COLOURS	COMMENTS
PIT A	A-12	top	3	flaky colours
	A-13	2	0	
	A-14	4	7	1 flake
	A-15	6	8	rusty colours
	A-16	8	42	3 pieces, 27 flakes
	A-17	10	20	lots of black sand
	A-18	12	13	3 flakes
	A-19	14	33	1 chunky piece, bedrock
	A-20	16	67	in bedrock, coarse gold

The gold recovered from this set of nine 100 lb. samples was combined and weighed. This weight was used to calculate a grade figure. We didn't think it was useful to weigh the gold obtained from each sample separately as there did not seem to be noticeable pay layers, other than the top gravels yeilding lower values.

The weight of the gold recovered from this 900 lbs. of gravel was .83 grains, or 002 of an ounce Using the standard assumption that 1 loose yard of gravel weighs 2800 lbs, we calculate the weight of gold per loose cubic yard of gravel as follows:

.002 oz / 900 lbs = X oz / 2800 lbs

Therefore 2800 lbs. or 1 yard of gravel contains 006 oz

.006 oz/cubic yard translates to 167 yards to the ounce of raw gold.

The grade for excavation A is 167 cubic yards to the ounce of raw gold.

TABLE 3
RESULTS OF GOLD PAN SAMPLES FROM 5 CREEK EXCAVATIONS

EXCAVATION #	SAMPLE NUMBER	DEPTH FEET	# OF COLOURS	COMMENT
PIT B	B-1	top	0	top gravel, angular
	B-2	2	0	angular
	B-3	4	0	angular
	B-4	6	1	very fine colour
	B-5	8	0	
	B-6	9	3	2 fine, 1 large flake
	B-7	10	1	flake approx. 14 mesh
	B-8	12	0	some bedrock
	B-9	13	11	1 large flake 10 mesh
	B-10	14	3	flaky pieces
PIT C	C-1	top	0	top gravel
	C-2	2	0	top gravel
	C-3	3	0	top gravel
	C-4	4	1	fine colour, orange
	C-5	6	1	very fine
	C-6	8	3	fine colours
	C-7	9	1	flaky colour
	C-8	10	0	
	C-9	12	0	bedrock, schist
	C-10	13	1	good sized rusty flake

TABLE 3 - continued
RESULTS OF GOLD PAN SAMPLES FROM 5 CREEK EXCAVATIONS

EXCAVATION #	SAMPLE NUMBER	DEPTH FEET	# OF COLOURS	COMMENT
PIT D	D-1	top	1	good sized orange color
	D-2	1	0	
	D-3	2	0	
	D-4	4	17	1 flake 14 mesh
	D-5	6	6	2 large orange flake
	D-6	8	4	20 mesh flakes
	D-7	10	1	good colour, orange
	D-8	12	1	small colour
	D-9	13	1	large flake
	D-10	14	1	small flake, bedrock
PIT E	E-1	top	1	small colour
	E-2	1	0	angular gravel
	E-3	2	0	angular gravel
	E-4	4	1	small colour
	E-5	6	3	large flake
	E-6	8	1	large flake
	E-7	10	11	small colours
	E-8	12	1	large piece, 10 mesh
	E-9	14	0	bedrock
	E-10	14	1	flaky piece

TABLE 3 - continued
RESULTS OF GOLD PAN SAMPLES FROM 5 CREEK EXCAVATIONS

EXCAVATION #	SAMPLE NUMBER	DEPTH FEET	# OF COLOURS	COMMENT
PIT F	F-1	top	0	surface gravel.
	F-2	1	0	poorly sorted
	F-3	2	0	
	F-4	4	0	
	F-5	6	2	orange flakes
	F-6	8	1	small colour
	F-7	10	0	
	F-8	12	0	black sand
	F-9	14	2	large flakes, bedrock
	F-10	15	1	good-sized flake

TABLE 4
RESULTS OF 10 CUBIC YARD BULK SAMPLES

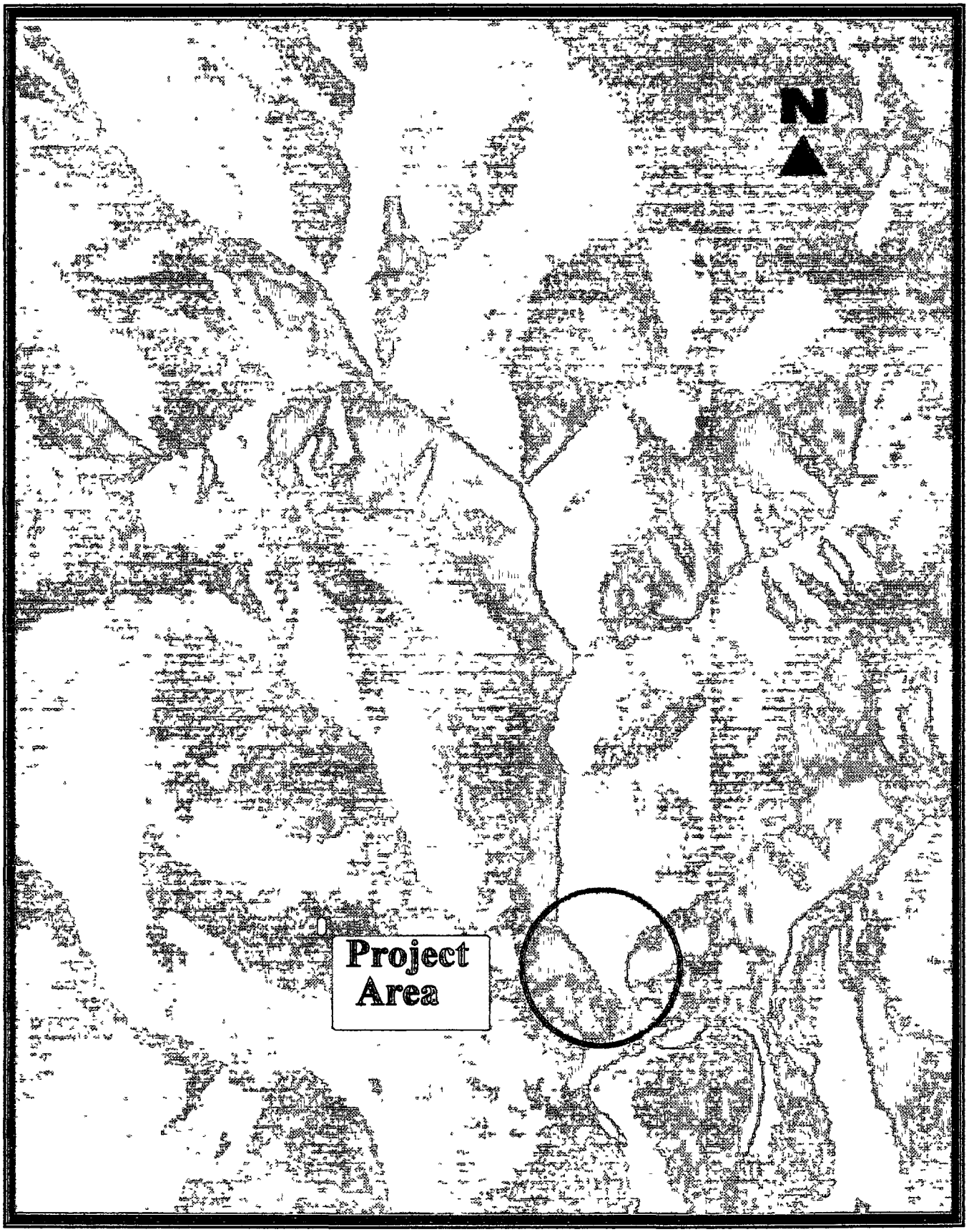
EXCAVATION #	SAMPLE NUMBER	WEIGHT OF GOLD IN OZ.	GRADE CUBIC YDS/OZ	COMMENTS
A	A-21.	.09	111	mostly flaky colours
B	B-11	.12	83	3 pieces + 14 mesh
C	C-11	.08	125	2 pieces +14 mesh
D	D-11	17	59	7 pieces +14 mesh
E	E-11	.11	91	mostly flaky
F	F-11	.07	143	flaky colours

The average grade of the six bulk samples is 102 loose yards per raw ounce of gold.

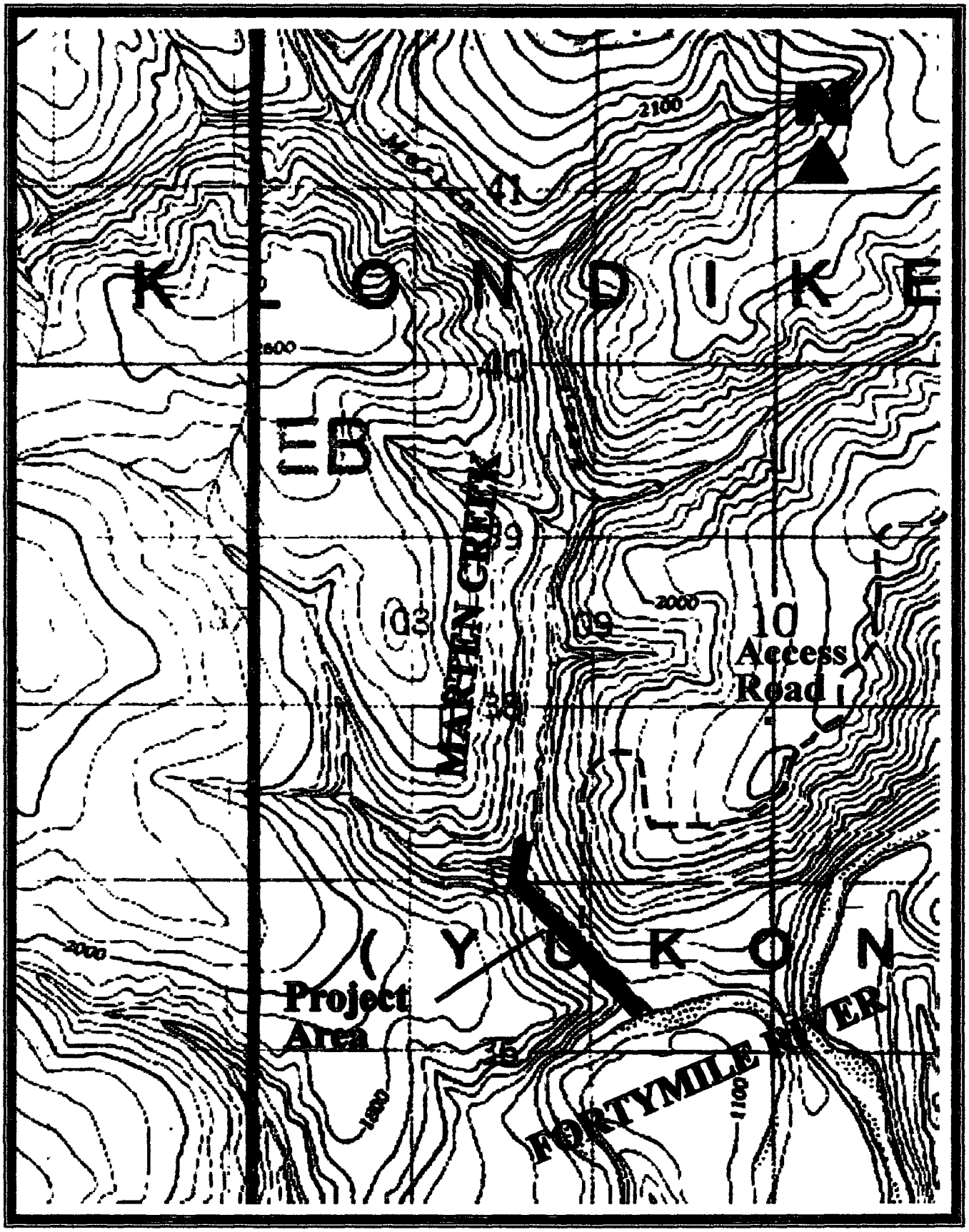
We weighed the gold obtained from each pit using a scale capable of weighing to .1 gram, and calculated that weight in troy ounces. We determined a weight of gold per loose yard of gravel processed by dividing the weight of gold obtained in the 10 yard bulk sample by 10 to obtain the weight per cubic yard. The weight of gold per cubic yard was used to calculate the grade in cubic yard per ounce. For example:

.09 oz/10 cubic yds = .009 oz/1 cubic yd.

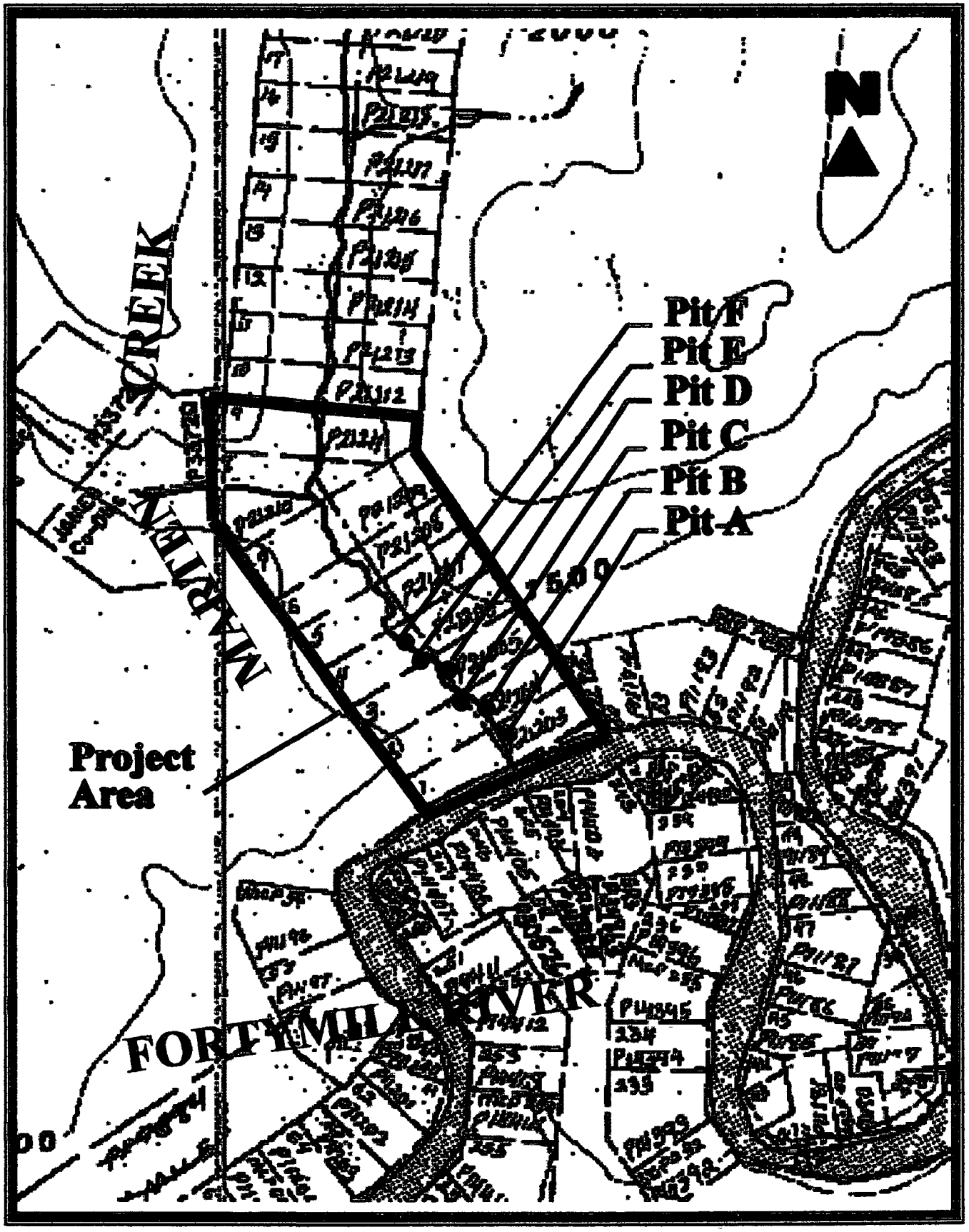
.009oz/1 cubic yd = 1 oz/111 cubic yds



AERIAL PHOTO OF MARTEN CREEK



MAP 1 - PROJECT LOCATION
NTS MAP 116C-7 SCALE 1: 50,000



MAP 2 - WORK LOCATION
PLACER SHEET 116C-7 - SCALE 1" = 1700'

APPENDIX 3 - SUPPLEMENTAL INFORMATION

PEOPLE WHO WORKED ON THE PROJECT:

Leslie Chapman	Marten Creek, Fortymile River, Yukon
Bill Claxton	Marten Creek, Fortymile River, Yukon

PREPARATION OF THE REPORT:
The report was prepared by Leslie Chapman and Bill Claxton.

PROPERTY INVESTIGATED:
Placer claims P21203 - 21212

VOLUME OF EXCAVATIONS:
Pits were, on average, 20 foot diameter by 16 feet deep, or 242 cubic yards per pit. There were 6 pits
Total volume of excavations is (6 x 242) 1452 bank cubic yards.