

Brothers Valley Gold Mines Limited report of 1934. Although the probabilities of developing huge low-grade placer deposits are now considered remote, further work can be concentrated on two areas in which a good likelihood occurs of establishing economic placer mining operations.

Both areas occur on McClair Creek and are shown as cross-hatched areas in Fig. #4.

McCLAIR CREEK ALLUVIAL FAN

The McClair Creek Alluvial Fan (see fig. #4) is located just upstream from the mouth of McClair Creek, and downstream from the mouth of the canyon.

It has an upstream length of some 2600 feet, an average width of some 750 feet and encompasses an area of some 45 acres. The creek, which runs through the central portion of the fan, is flanked by a series of low-lying benches rising to ultimate heights of fifteen to twenty feet above the present creek level. A total of 4 pits were dug in this area. The results of these, and previous drilling, indicated:

a) bedrock occurs at relatively shallow depths at the upstream end of the fan (6 to 10 feet) but the gravels deepen to over 70 feet at the downstream end.

b) Gold values are found at surface in the boundary gravels immediately adjacent to the creek, but are normally covered by 3 to 6 feet of relatively barren silt, sand, and fine gravel on the low-lying benches. Below the barren upper layer the values increase rapidly with depth. Where bedrock is encountered values do not occur directly upon it, but stop about 1 - 2 feet above it, a condition which was also noted by prospectors in 1934.

The values encountered in the McClair Creek were most encouraging (see fig. 5).

Pit 19, located immediately at the mouth of the canyon was collared on a bench, some 20 feet from the creek and 10 feet vertically above it. The pit was sunk to a depth of 10 feet and included 1 foot of bedrock and one foot of clayey material immediately above. Samples were hand panned and assayed as follows:

<u>DEPTH INTERVAL</u>	<u>PANNING VALUE (mg/CU.Meter)</u>	<u>SLUICING VALUE</u>
2' - 3' (slit)	Nil	
3' - 4' (sand)	52 mg/M3	
4' - 5½ (fine gravel)	16 mg/M3	
5½ - 6' (coarse gravel)	268	
6' - 7' (coarse gravel)	464	747.7mg/Cu meter
7' - 8' (coarse gravel)	674	2' - 10' depth
8' - 9' (clay)	5.2	
9' - 10' (weathered bedrock)	14.1	

This would suggest that the interval between 5½' and 8 feet should have averaged 508mg/M3 and the entire pit from 2' - 10' should have averaged 179mg/M3. However, of the 1404 lbs. of unscreened material charged to the sluice 294.6 mgms. of gold was recovered, equivalent to 747 mg/M3 from the entire 2 foot to 10 foot interval. This attests to the advisability of taking large samples vs. small samples.

Pit No. 20, was collared 150 feet downstream from pit No. 19, and across the creek. It was located 75 feet from the water's edge and 6 feet above the creek elevation. Bedrock and water were encountered at a depth of 6 feet. The pit contained many boulders to 2 feet in diameter, with coarse gravel between the boulders. The upper two feet was not sampled as no values were anticipated. The bottom 3 feet assayed 165 mg/cu meter.

Weekend gold panners were allowed to pan for gold at the water's edge between pit 19 and pit 20, in exchange for the information gained from the results of their work. The results were rather spectacular, with considerable coarse as well as fine gold being recovered. A rough estimation of the yardage removed from the bank suggested that the tenor of these gravels would have averaged approximately 1400mg/M3.

Pit No. 1 was collared approximately 400 feet downstream from the mouth of the canyon, some 250 feet from the creek, at an elevation of 20 feet above the creek level. The pit was sunk to a depth of 8½ feet, through sand, silt and fine gravel for the upper 5½ feet and coarse gravel for the bottom 3 feet. Bedrock was not reached. Sampling began at 5½ feet with the following resulting assays:

DEPTH INTERVAL

5.5 - 6.5		400 mg/yd ³ 484mg/cu meter
6.5 - 7.5'		468mg/M3
7.5 - 8.0'		1506mg/M3
8.0 - 8.2'		3078mg/M3
8.2 - 8.5	est.	2850mg/M3

Average Value 5.5' - 8.5' = 1058mg/cu meter

Pit #5, located some 600 feet downstream from the canyon and 500 feet distant from the creek, was sunk on a bench some 20 feet above the elevation of the creek, within 100 feet of the base of a bluff. The entire 9 feet assayed 243mg/M3.

A cribbed shaft dug in 1934, located 950 feet downstream from the mouth of the canyon, 400 feet from the creek, and approximately 20 feet above the level of the creek, was inspected. It was badly caved, with debris built up to the 12 foot depth. However, a probe indicated that its original depth continued to at least 17 feet.

Samples were taken from behind the rotten timbers and assayed as follows:

<u>DEPTH OF SAMPLE</u>	<u>ASSAY</u>
8'	270 mg/cu. meter
9'	95 mg/cu. meter
11'	10.4mg/cu. meter

The material was mainly pea gravel, indicating that much of the finer material (containing gold?) had been washed away by surface waters percolating between the shaft spilling wall and the gravel. Signs were encouraging in that values continued to be found at this location and that 2 samples of the three showed colour.

OTHER FIELD WORK

The success visually noted from the pits dug in the McClair Creek Alluvial fan prompted the exploration of Moosehorn Creek. Although located outside the Toodoggone River Designated Placer Area (see drawing #4) it was felt the government could be persuaded to open Moosehorn Creek to placer activity.

Excellent values in fine gold were obtained from surface panning in one area but the provincial government has refused to designate this area for placer, on the basis that it encroaches upon land occupied by large herds of wildlife.

SUMMARY OF PITS SUNK

PIT NO.	DEPTH (METERS)	VALUE MGMS AU/M3	NOTES
1	2.6	619.0	1.7 to 2.6 meter depth interval
2	2.6	2.4	
3	2.6	5.3	
4	1.2	1.0	
5	2.75	142.0	
6	2.6	.4	Located on bench at mouth of Moosehorn Creek.
7	2.6	.4	
8	2.6	.4	
9	2.4	22.5	
10	3.3	6.9	
11	0.9	Nil	
12	2.6	1.7	
13	2.4	1.7	
14	2.4	3.9	
15	2.4	3.9	Located on Upper McClair Creek
16	2.4	18.2	
17	2.4	.4	
18	2.4	13.0	
19	3.0	746.8	0.6 - 3.0m depth interval
20	1.8	127.7	0.9 - 1.8m dpeth interval

MID-McCLAIR CREEK VALLEY GRAVELS

One additional area which has good potential is located along McClair Creek approximately 3½ miles above the mouth (see drawing #4). It has a length of 2500 feet and an average width of some 400 to 500 feet. No pitting was done but it's geological setting and potential tailings room warrant it as a good bet.

It is expected that the gravels will be shallow, probably less than eight feet in thickness but should contain substantial gold values.

Good values were reported by the early operators at various other points along the creek bottom but were assessed by the writer to be too small for profitable mining by modern means, and as no adequate possible tailings disposal areas are available near by, they were not considered to have any economic value. Consequently they were not seriously prospected.

OTHER KNOWLEDGE GAINED BY 1981 PROGRAM

In addition to the Company locating one potentially economic placer deposit, and locating of another prime exploration target, the following knowledge has been gained:

LOCATION OF POTENTIALLY ECONOMIC PLACERS

High level benches have not been found to contain economic quantities of gold. The highest-grade pit sunk on the upper benches was pit No. 16, on the Nicholson "fan". It assayed only 18.2 mg/M3 over its 9 foot depth. In addition, the gravels found on this bench, although water-washed to their full depth, were partially cemented with iron oxide. On most other high-level benches, the water washed gravels were shallow, and overlay glacial till.