PLACER INSPECTION TULAMEEN RIVER, PRINCETON, BRITISH COLUMBIA.

Placer Lease 1041 (Y)

Princeton Mining Division.

Map P 92H/7E.

BY

R. B. STOKES, P.Eng.,
Consulting Mining Engineer.

FOR

Cathedral Minerals Ltd.
709 - 744 W.Hastings Street,
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November 25, 1980.

Stokes Exploration Management Co.Ltd.,
713 - 744 W.Hastings Street,
Vancouver, B.C. V6C 1A5.

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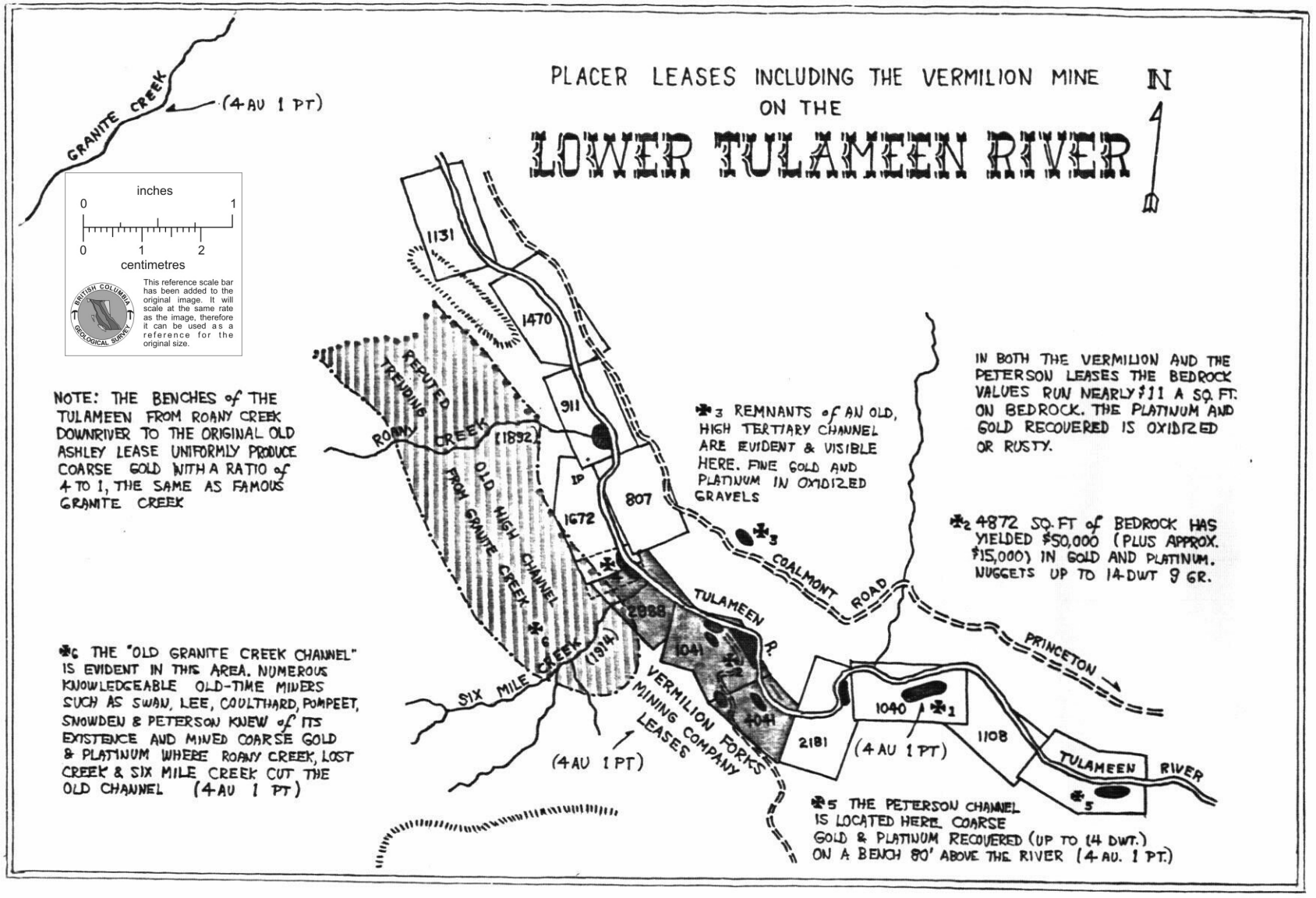
PLACER LEASES INCLUDING THE VERMILION MINE
ON THE
LOWER TULAMEEN RIVER
IN
GRANITE CREEK
(4 AU 1 PT)
inches
0
1
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1
2
centimetres
This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.
NOTE: THE BENCHES of THE TULAMEEN FROM ROANY CREEK DOWNRIVER TO THE ORIGINAL OLD ASHLEY LEASE UNIFORMLY PRODUCE COARSE GOLD WITH A RATIO of 4 TO 1, THE SAME AS FAMOUS GRANITE CREEK
1131
1470
911
IP
1672
807
REPUTED TRENDING ROANY CREEK (1892)
OLD HIGH CHANNEL FROM GRANITE CREEK
CREEK (1914)
SIX MILE
2988
1041
1041
2181
1040
1108
TULAMEEN R.
COALMONT ROAD
PRINCETON
TULAMEEN RIVER
VERMILION FORKS MINING COMPANY LEASES
(4 AU 1 PT)
(4 AU 1 PT)
(4 AU 1 PT)
✠3 REMNANTS of AN OLD, HIGH TERTIARY CHANNEL ARE EVIDENT & VISIBLE HERE. FINE GOLD AND PLATINUM IN OXIDIZED GRAVELS
IN BOTH THE VERMILION AND THE PETERSON LEASES THE BEDROCK VALUES RUN NEARLY $11 A SQ. FT. ON BEDROCK. THE PLATINUM AND GOLD RECOVERED IS OXIDIZED OR RUSTY.
✠2 4872 SQ. FT of BEDROCK HAS YIELDED $50,000 (PLUS APPROX. $15,000) IN GOLD AND PLATINUM. NUGGETS UP TO 14 DWT 9 GR.
✠6 THE "OLD GRANITE CREEK CHANNEL" IS EVIDENT IN THIS AREA. NUMEROUS KNOWLEDGEABLE OLD-TIME MINERS SUCH AS SWAN, LEE, COULTHARD, POMPEET, SNOWDEN & PETERSON KNEW of ITS EXISTENCE AND MINED COARSE GOLD & PLATINUM WHERE ROANY CREEK, LOST CREEK & SIX MILE CREEK CUT THE OLD CHANNEL (4 AU 1 PT)
✠5 THE PETERSON CHANNEL IS LOCATED HERE. COARSE GOLD & PLATINUM RECOVERED (UP TO 14 DWT.) ON A BENCH 80' ABOVE THE RIVER (4 AU. 1 PT.)

PLACER INSPECTION TULAMEEN RIVER,
PRINCETON,BRITISH COLUMBIA.
Placer Lease 1041 (Y)

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GENERAL.

On October 4, 1980 at the request of Mr. Bill Barlee I accompanied him on an inspection of Placer Lease 1041 located about 4½ miles west of Princeton, British Columbia.

Most of the day was spent there during which I carried out some panning tests; walked the accessible ground and observed a bulk test using a front end loader and a small working plant. In this test 20 yards of wash was processed to produce 2.5 oz. of coarse gold, a value of about $75 per yard at $600 gold.

PROPERTY.

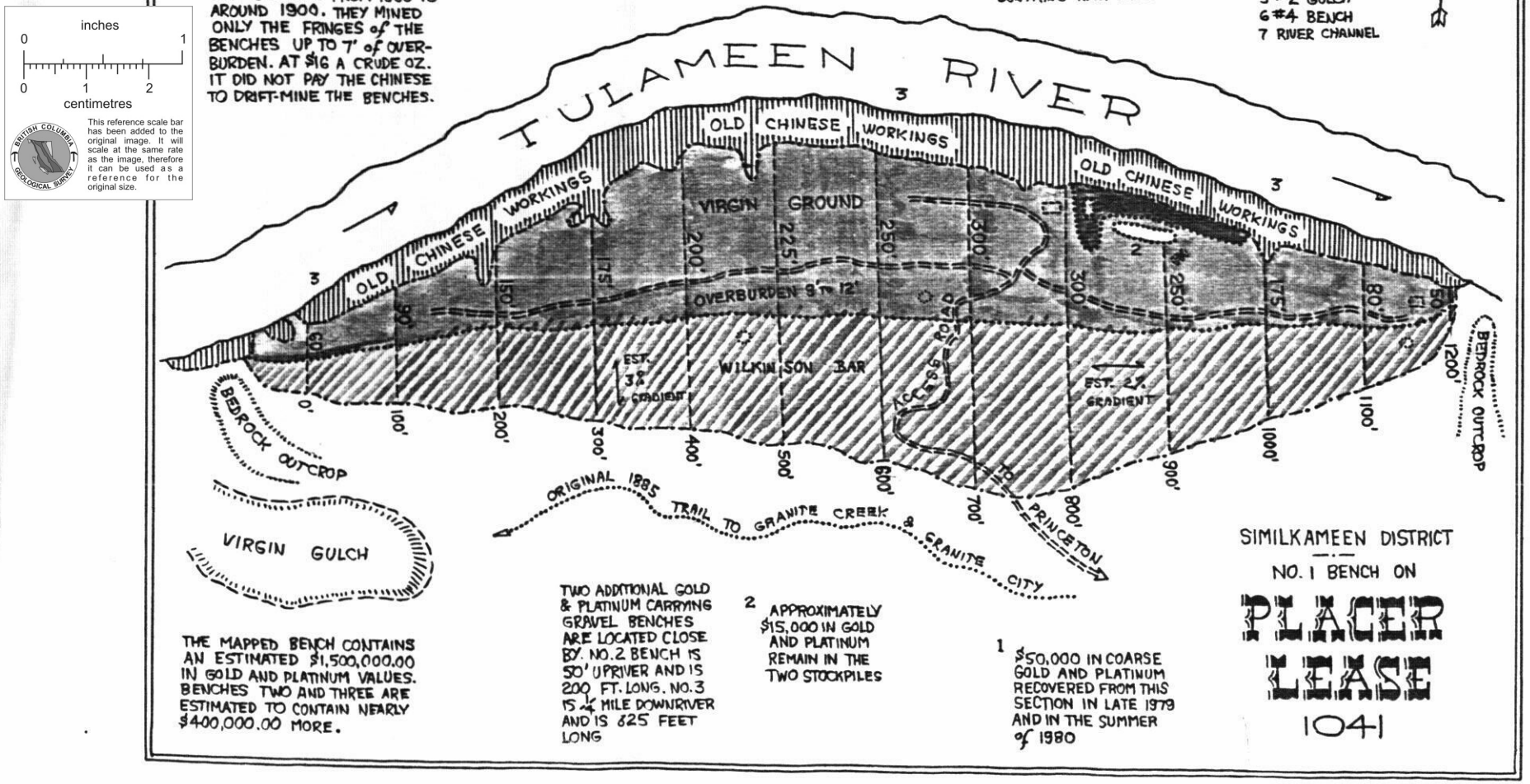
The key lease seen was P.L.1041 (Y) with P.L.2988 (Y) upstream and P.L.4041 (Y) downstream. The leases are held by Mr. W. Wilkinson of Princeton, British Columbia. The (Y) stands for yellow coding, in the scale, Red, Yellow, Green, of environmental sensitivity, particularly for fish. No working can be carried out in the river and no tailings or silt released into the river.

ACCESS.

The property can be reached readily by 4 wheel drive vehicle or a pick up truck when it is dry, by turning right at the top of the hill leading out of Princeton toward Hope. The dirt road passes through private property then turns down a steep road into the Tulameen Valley for about 1½ miles.

PLACER AREA.

The working area lies on a N.E. curve of the Tulameen River. It is on the south bank, on the opposite side to the Tulameen Road and the railway. On the air photos there are two levels of bench at this point indicating that the river cuts across the benches at a higher elevation than the



current river level.
There also appears to have been a slide into the river from the south bank caused by the gradual erosion by the river into the bank. A cluster of large boulders can be seen in the river and on the air photos at this point.

On the ground the bench and flatter area was chained for 1200 ft. by Mr. Barlee and is 305 ft. at its widest, with average width of 135 to 140 ft. Mr. Barlee reported an average of 9½ ft. of overburden from work he has carried out.

The area being worked at the time of the inspection was close to the river about 20 ft. above the current river level and close to two old cabins. These cabins are likely to be more recent than those built by the Chinese but old Chinese potteries were found close by.

HISTORY.

The Tulameen River has seen substantial placer activity for 100 years; an example on this specific area is a quote from the Minister of Mines Report for 1915:

> " On Granite creek R.A.Lambert and associates have done considerable work on their placer leases. They ran a tunnel in solid rock 300 feet long, 6½ feet high, and 4½ feet wide, and also laid 500 feet of bed-rock flume, costing in all for that and the season's work $7,000.
> On the right bank of the Tulameen river, about four miles below Granite creek, there is supposed to be an old channel of Granite creek, and a syndicate of Seattle men has acquired a number of leases covering this ground. The operations are in charge of Chester F. Lee, a mining engineer of that city, who has kindly furnished me with the following synopsis of the season's work:-
> "The operations of the Lost Creek Mining Company Limited, on the group of seven hydraulic leases held by the company on the Tulameen river, seven miles above Princeton, consisted, for the year 1914, chiefly in prospecting on the end of the Snowden gravel channel where it is cut

by the gorge of the Tulameen river. Drifts were run, pits sunk, and some gravel washed, but water was too scarce during the season to be effective in hydraulic operations. On the Coulthard channel drifts and pits were also sunk to ascertain the character and value of the ground. On the main or so-called Granite Creek channel ground-sluicing was begun on the Six-mile Creek end where the channel is cut in that creek, but cold weather stopped operations before decisive results were obtained at this point. Water rights were taken up on Six-mile and Lost creeks. Results in gold and platinum extracted were encouraging. Ninety-five per cent of the gold obtained was coarse,and platinum constituted 36 per cent of the total value of the precious metals extracted".

The two schematic maps put together by Mr. Bill Barlee show the picture well.

More recently about 5 years ago METCON & IONARC did some inconclusive testing in the property area.

TESTS.

A small washing plant has been built on the Lease 1041 by Mr. William Wilkinson. It is capable of washing about 10 yards an hour.

It is set up alongside a new excavation to bedrock about 20 ft. above present river level, 180 ft. long and 22 ft. wide average. The overburden and overlying gravel and wash had been stripped and stock piled to one side. An area of 18 ft. wide by 30 ft. long had been exposed. A layer 2 ft. above and into bedrock had been stripped and stock piled alongside.

This material which is expected to be richer than the average of the whole section, was washed while we were there.

Two tests and clean ups were done -

1. 7½ to 8 yards were processed in 40 minutes to yield 16.5 dwt of gold/platinum (0.825 oz).
2. 11 - 12 yards yielded 1.45 oz. of gold-platinum.

The total was 20 yards for 2.275 oz. gold/platinum. This quantity was obtained by a fairly rough cleanup by hand panning of the coarser gold. Mr. Barlee obtained 0.2 oz. more later by fine panning the rejected sample from the 20 yard cleanup. The ratio of gold to platinum is 80:20 approximately; 90% of the gold has pyrite (iron) staining on it indicating it has come from close to the bedrock. (The bedrock is of volcanics containing pyrite staining). The other 10% of the gold is shiny, possibly having migrated downwards.

The gold is flattened and elongate, with some of wheat to pea size. There are relatively few fines. The platinum is finer, 1 mm, of coarse sand size and tends to be more rounded.

Mr. Wilkinson reckons that his recent tests have given him 1 oz. of gold/platinum per hour or that he has been averaging 8 to 9 yards to 1 oz.

Mr. Barlee had pan tested the pit area prior to the bulk test and had obtained from 244 of 14 inch pans 20 dwt 4 grain (1.008 oz) of gold/platinum; these tests included -

3 pans	=	5 grains	(0.0104 oz)
12 pans	=	17 grains	(0.0354 oz)
35 pans	=	2 dwt 8 grains	(0.1167 oz)
50 pans	=	3 dwt 6 grains	(0.1625 oz)

Taking a 14 inch pan at 280 to the yard 1 oz in 244 pans = $2.46 a pan. But there are(approximately) 280 14 inch pans to 1 yard, giving a value of $688 yard.

This illustrates that :

a) that high values exist on the property where selected samples can be taken
b) panning is an efficient test tool recovering most of the fines that are lost in a production plant
c) that values are consistent at least across the open cut area.

SUMMARY AND RECOMMENDATIONS.

1. An inspection was made of Placer Lease 1041 near Princeton, British Columbia.

2. Panning and bulk tests on a limited area on a stock pile of placer gravel taken from 2 feet above and into bedrock give a value of $75 per yard with gold at $600 U.S. (This takes into account the discounted Canadian dollar and finess of the gold).

3. This is 7 - 8 times better than the"average" placer property but is specific to the best zone discovered. The upper layer of overburden is reported to be barren, the next 3 feet $10 - 13 a yard.

4. The dimensions of the area chained by Mr. Barlee is reported at 1200ft. long, 135 to 140 ft. wide average. Overburden varies but may be 10 ft.
These figures appear reasonable having walked the ground. No tests have been documented on this "outside" area and this should be done to verify yardage and values.

5. When calculating costs of production the cost of handling the non pay overburden should be included (the "stripping ratio").

6. The best apparent way of working is to extend the present "high grade" pit area by putting in production equipment and testing by production.

7. Further air photo studies correlating with benches and other features on the ground would be useful.

8. This property appears much better than the average and warrants putting in a production plant.

BUDGET.

Assume 6 months operation May to October.

1.	D.7 Cat with operator $80 hr. local rental (3 x 8 hours)at 24 hours per week -	$ 48,750.00
2.	Rental of 2¼ yd. loader and operator at $5380/month, 6 months -	60,000.00
3.	2 men to operate Sluice Box and Pumps, 6 months -	30,000.00
4.	Sluice Box (5' x 8')and Pump -	18,000.00
5.	Trailer rental, transport, food supplies -	30,000.00
6.	Fuel and miscellaneous 10% -	18,700.00
		$205,450.00
	Contingencies 15% -	30,800.00
		$236,250.00

This assumes positive and economic results from the work.

ALTERNATIVE.

A possible alternative is to work on a testing basis for two months with the same equipment on a rental basis except for the purchase of the sluice box and pumps.

Sluice box and pump as above	-	$ 18,000.00
2 months operation	-	75,000.00
Contingencies	-	7,000.00
		$100,000.00

CERTIFICATION.

1. This certifies that I, Ronald B. Stokes, P.Eng., Consulting Mining Engineer graduated in 1952 in England. I have practiced mining exploration engineering for 28 years, 25 years based in Vancouver. I have been registered in British Columbia as a Professional Engineer since 1964.

2. My experience covers Western Canada, the Yukon, the S.W. U.S.A., Central and South America, the Pacific Islands and Australia.

3. I am the principal of Stokes Exploration Management Co.Ltd. (SEMCO), exploration consultants for 14 years We maintain offices at:

   713 - 744 West Hastings Street,
   Vancouver, British Columbia. V6C 1A5.

   Telephone: (604) 688.8541.

4. This report was prepared following a visit to the Placer Lease 1041(Y) property on October 4, 1980.

5. I have no interests in Cathedral Minerals Ltd., or the property, nor do I expect any.

6. This report may be used by Cathedral Minerals Ltd., 709 - 744 W.Hastings Street, Vancouver, British Columbia. V6C 1A5, for filing with the Securities Commission or Vancouver Stock Exchange and/or for public financing.

Respectfully submitted:

R. B. Stokes, P.Eng.,
Consulting Mining Engineer.

November 25, 1980.

PART III

CHINA CREEK PLACER PROPERTY

SUMMARY

Copper Plate Mines Ltd. (NPL) has acquired 10 placer leases, the A 1 - 10 leases immediately north of the town of Princeton in the Similkameen Mining Division, B. C.

Bench and river gravel deposits are notably absent on the southern portions of the property, thus offering few economic possibilities for the existence of workable placer deposits.

The northern portion of the property is underlain by gravels of possible glacial origin which might have been reworked by stream action. A possibility exists of the presence of locally enriched concentrations of placer gold and platinum in these gravels. Reports of significant gold values occurring on the adjoining placer properties are unconfirmed.

It is recommended that a programme be initiated to include sampling of all vertical gravel exposures; and, if warranted, a follow-up programme of churn-drill sampling should be started.

INTRODUCTION

A brief examination was made of 10 placer leases, the A 1 - 10 leases, located in the Similkameen Mining Division of B. C This examination was of a cursory nature, designed to locate the subject leases and acquaint the writer with the general characteristics of the surficial and bedrock geology. No attempt was made to sample any of the gravels exposed in road cuts. It is understood that several gravel samples were previously taken and assayed from various locations on the placer leases.

LOCATION AND ACCESS

The placer leases are situated on the bench gravels of the Tulameen River immediately north of Princeton, B. C and extend in a northwesterly direction to the north-east side of China Creek.

Numerous roads provide easy access to all portions of the leases.

TOPOGRAPHY, TIMBER, POWER, WATER

The topography varies from one of gentle relief on the south near the Tulameen River to moderate relief on the north on the slopes to China Creek. Elevations vary from 3,000' on the north to 2,300' on the terrace above the Tulameen River. Water required for any placer operations

would have to be pumped from the Tulameen River. Timber required for any placer operations could be purchased from local sawmills in the area. Power is available at Princeton.

HISTORY

Gold is reported to have been found on the Similkameen River below Princeton as early as 1853. The various river bars attracted attention at various times, but it was not until coarse gold was discovered in Granite Creek in 1885 that active placer mining began. In 1886 the value of placer gold production reached an all-time high of $193,000. The active placer mining period lasted for about 10 years and then dwindled to a value of a few thousand dollars a year. Various attempts have been made over the years to work bench deposits and deep gravels by power shovel and hydraulic methods and to reach deeply buried channels by tunnelling; however, these methods have, at best, met with only moderate success.

The total placer-gold production from the area has had a value of approximately $750,000, of which about half came from Granite Creek, the richest creek in the area.

GENERAL DESCRIPTION OF PLACER DEPOSITS IN THE PRINCETON AREA

The material of the placer deposits consists of sand and gravel usually containing various-sized boulders

which have caused serious problems with attempts to mine the placer deposits by mechanical methods.

The concentrated heavy minerals obtained are principally chromite, magnetite, gold, platinum and rarely native copper. Gold occurs in rough, angular, or slightly flattened nuggets. Flour gold is relatively scarce. The only other mineral of relative importance in the placer deposits is platinum. Previous records indicate that the ratio of platinum to gold is about 1 to 4 in the Similkameen River and near the mouth of the Tulameen River.

The source of the platinum and gold in the placer deposits is believed to be the Olivine Mountain body of platinum-bearing ultrabasic rocks and the gold-bearing veins of Grasshopper Mountain.

SURFICIAL GEOLOGY OF THE CHINA CREEK PLACER LEASES

At lower elevations on the property; namely, the area covered by Leases A 1 - 6, the presence of either bench or stream gravel is extremely limited. The majority of this area is underlain by soil derived from the underlying Princeton sediments as exposed in the banks of the Tulameen River 1/2 mile west of the highway bridge, the canyon of China Creek near its conflux with the Tulameen River and in numerous road cuts. The bench gravels, where present, appear to extend to depths of but a few feet.

At the higher elevations; namely, the area covered by Leases A 7 - 10, the unconsolidated material consists of gravel varying in texture from poorly sorted to well bedded, the components ranging in size from fine sand to boulders 4" in diameter. The origin of these gravels is uncertain, and they may consist of glacial material possibly reworked by stream action.

ECONOMIC GEOLOGY

Several samples of gravel taken from various locations on the property returned gold values from nil to trace. The bench gravels of the Tulameen River are not extensive in the area of Leases A 1 and A 2, thus offering few economic possibilities for workable deposits.

It has been reported that gold values were obtained on some portions of 15 adjoining placer leases. If these values can be confirmed a programme of churn drilling might be initiated to test the gravels on the China Creek property at higher elevations.

CONCLUSIONS AND RECOMMENDATIONS

The absence of extensive bench gravel deposits on the southern portions of the property near the Tulameen River offer few economic possibilities for the presence of workable placer deposits. Significant gold values were reportedly obtained from 15 placer leases immediately to

the east of the property. If these values are confirmed a programme of churn drilling might be initiated to test those gravels at higher elevations on the conjecture that they are glacial gravels which have been reworked by stream action resulting in local concentrations of gold and platinum, if originally present.

It is, therefore, recommended that a sampling programme be initiated to include:

1. Sampling of all natural vertical exposures of gravels. These exposures will include road cuts, bench gravels exposed in China Creek and the Tulameen River, recently-dug transmission power pole holes etc.

2. If warranted as a result of Step 1, a series of churn drill holes should be drilled.

It is estimated that an amount of $2,500.00 will be required to implement the above programme.

1.	Manual sampling	$ 700.00
2.	Churn drilling programme (300' @ $4.00 per foot)	1,200.00

3.	Assaying	$ 400.00
4.	Contingencies	200.00
		$ 2,500.00

Respectfully submitted,

K. F. Kangas

K. F. Kangas
Geologist

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
T. R. TOUGH