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DU PONT OF CANADA EXPLORATION LIMITED

REPORT ON PROPERTY EXAMINATION

WRIGHT CREEK PLACER LEASES

in the name

of

S. J. CONNOLLY

Atlin Mining District

British Columbia

June 9-14, 1977

by

C. B. GUNN, P.ENG

INTRODUCTION

Following correspondence with Mrs. S.J. Connolly in December 1976 I obtained and reviewed exploration and historical data from Mrs. Connolly on Otter and Wright Creeks. Our company was sufficiently interested in the placer gold potential of these two properties to arrange a field examination in the early summer of 1977. On June 9, 1977 I flew from Vancouver to Whitehorse and travelled to Atlin by rented truck to make a property examination. On reaching Atlin I was informed by Mrs. Connolly that the Otter Creek property was no longer available to us so my main attention was directed to the Wright Creek leases.

It was unfortunate that at this time the bridge giving access to Wright Creek was washed out and arrangements had to be made with the Department of Highways to repair the approaches to the bridge sufficiently to allow a four wheel drive vehicle to ford the creek. It was several days before this could be done which added significantly to the cost and length of time required for the examination of the Wright Creek prospect. In the meantime some useful information was gathered by making a reconnaissance visit to Otter Creek to examine the characteristics of the surficial geology, much of which could be applied to the subsequent examination of the Wright Creek prospect. On Monday, June 13th I was able to reach the property and spent 5 hours on various

parts of Wright Creek examining the ground from the upper shallow workings to the alluvial flats close to Surprise Lake.

The following day I returned to Whitehorse and subsequently to Vancouver.

#### LOCATION AND ACCESS

Wright Creek is in NTS 104-N-11 and drains northward into Surprise Lake. Surprise Lake is approximately 12 miles east of Atlin and can be reached by good gravel road. Atlin is accessible on a year-round basis by a 60 mile road from the Alaska Highway at Jakes Corner, YT. A four wheel drive gravel road connects the Atlin-Surprise Lake road to the Wright Creek property. Access is sometimes interrupted by the washing-out of the Otter Creek bridge.

#### PROPERTY AND TITLE

Information supplied by S.J. Connolly indicates that the placer leases concerned on Wright Creek are as follows:

Placer Mining Lease	1742
	1684
	1685
	1686
	1698
	1700
	1701
	1906

The writer has not made an independent title search.

HISTORY AND GEOLOGY

Details of the geography, history of activity and geology on the property are well summarized by a report (attached) by William Sharp, P.Eng. The narrative and maps in this report were used as a basis for the present examination.

RESULTS OF EXAMINATION

Most of my time on the property was spent in the vicinity of the Shaft and Camp at the lower end of the area of handworkings at the upper end of Wright Creek. This is the most significant area of unworked ground and the one which we would have been most concerned with in the event of optioning the property. I identified and verified the various features pointed out in Sharp's reports although I was not able to find any claim posts. No special effort was made to find and identify any claim posts.

The camp buildings are now derelict and without value, but the shaft is in good shape and I would think that it could be back into operating condition without a great deal of expense. The shaft is full of water to a level about 20 feet below the collar where it drains through a pipe northwards into Wright Creek.

Examination of the various dumps adjacent to the shaft house gave a fair indication of the lithology encountered in the shaft and also in the drifts. The drifts were run out in two directions

from the bottom of the shaft. A description of the underground workings was given in the data by Rutherford Day and supplied to me by Mrs. Connolly and also by William Sharp in the report attached. Careful examination of the material in the spoil tips indicates that bedrock was reached and that in this area it consisted of well weathered volcanic material and a little quartz, calcite and siderite veining. I was later able to confirm these conclusions in conversations with Roy Smith who was presently working on Bull Creek and who worked on some of the last shifts in the drift on Wright Creek. According to Roy Smith the material in the drift consisted of very coarse boulders and the last few rounds reached rim rock to the northwest.

The sites of the churn drilling were identified in approximately the places indicated on Sharp's sketch plan but I did not measure them in. I think that a detailed survey would perhaps show some differences in the positions of the churn drill collars.

#### CONCLUSIONS

Examination of the shaft and drift material and the tailings from the hand workings above on the creek indicates to me that such pay gravel as there may be would be deeply buried in the central and so far unworked section of the valley. In this stretch of Wright Creek any payable ground should be expected both in and below horizons containing large proportions of well rounded boulders up to 3-4' across in some instances. In these ground

conditions drilling from surface would be almost an impossibility and this probably accounts for the lack of drill records up to the present time.

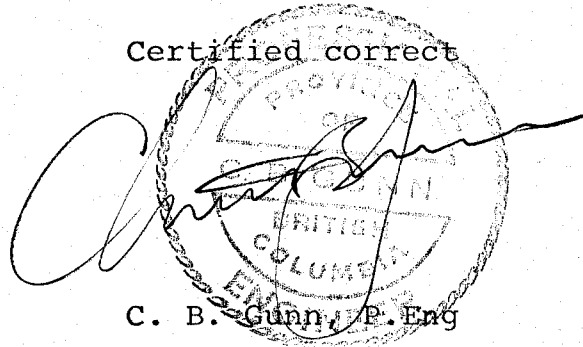
The depth to the payable ground combined with the narrowness of the valley, which would effectively prevent any extensive open cut work, and the presence of coarse boulder horizons which would make a drilling programme extremely difficult and subsequent mining expensive as well as slow lead me to conclude that Wright Creek is not a suitable prospect for our company at this time.

Mrs. S.J. Connolly has been informed of our findings.

STATEMENT OF COSTS

Travel:	Vancouver-Atlin and return airfares, meals, accommodation, vehicle rental and misc.	\$ 691.00
Professional Time (C.Gunn)	Travel to and from Property, waiting time and property examination - 6 days	780.00
	Office compilation and reporting - 2 days	260.00
		<hr/>
		\$1731.00

Certified correct



C. B. Gunn, P. Eng

Continued Report: WILLIAM M. SHARP, P. Eng.

"Report on Preliminary Surveys &  
Geological Examinations of  
Placer & Lode Mining Prospects near  
Atlin, B.C., Atlin Mining Division  
British Columbia during June, 1973"

\* \* \* \* \*

SECT. 2 - WRIGHT CREEK

GENERAL

Figs. 1 and 2 supplement the following text.

Wright Creek, which generally parallels Otter Creek, joins Surprise Lake nearly 2 miles east of it. The first (lower) bridge on Wright Creek is reached via a 3-mile continuation of the road

WILLIAM M. SHARP, P. ENG.



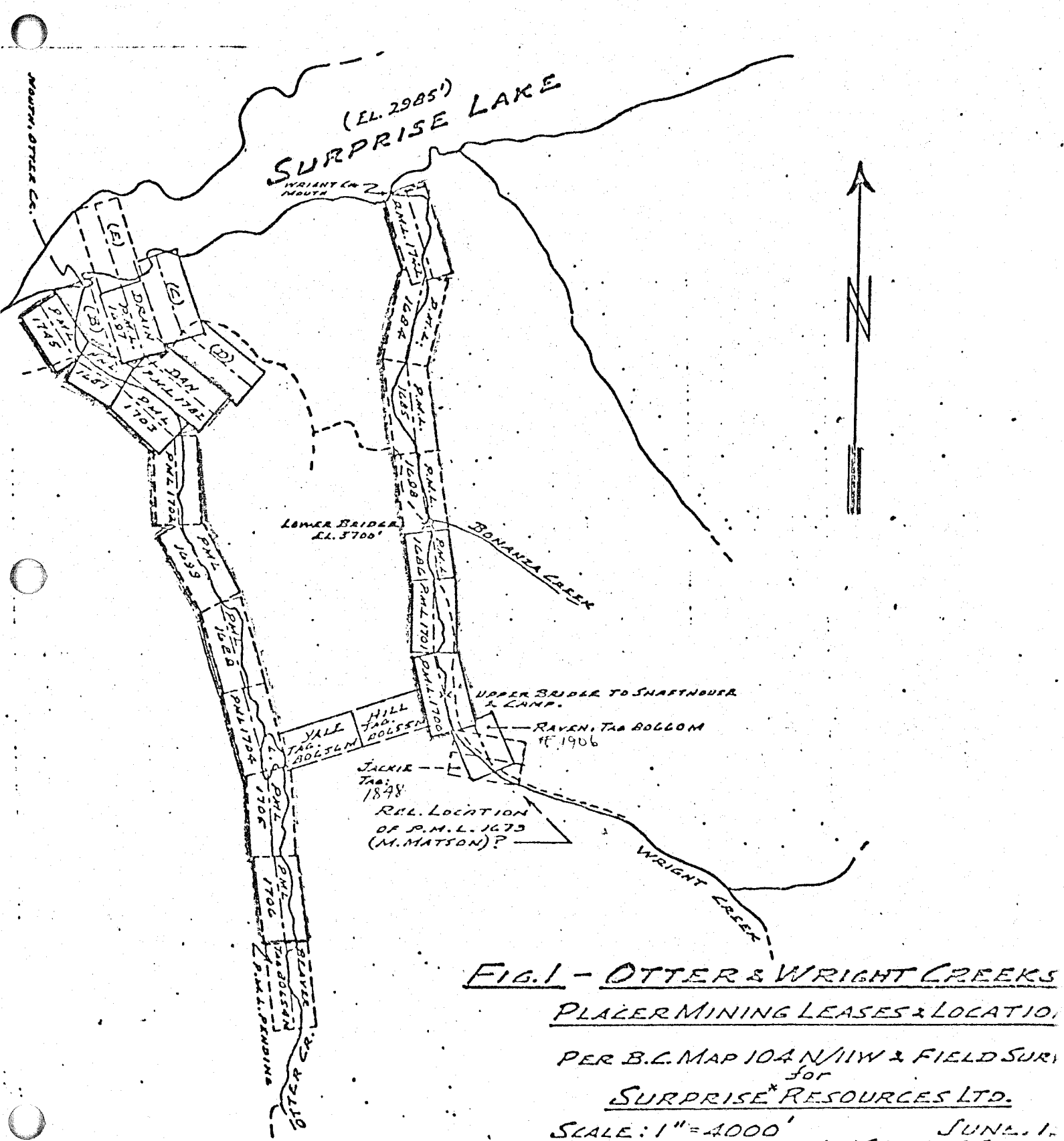


FIG. 1 - OTTER & WRIGHT CREEKS  
PLACER MINING LEASES & LOCATION

PER B.C. MAP 104 N/W & FIELD SURV  
 for  
SURPRISE\* RESOURCES LTD.

SCALE: 1" = 4000'  
 JUN 1, 1906  
 COMPIL. & SURVEYS BY W. M. SHARP, P. ENG.  
 ASSIST. BY T. O. & S. J. CONNOLLY & D. ROSSIGNOL

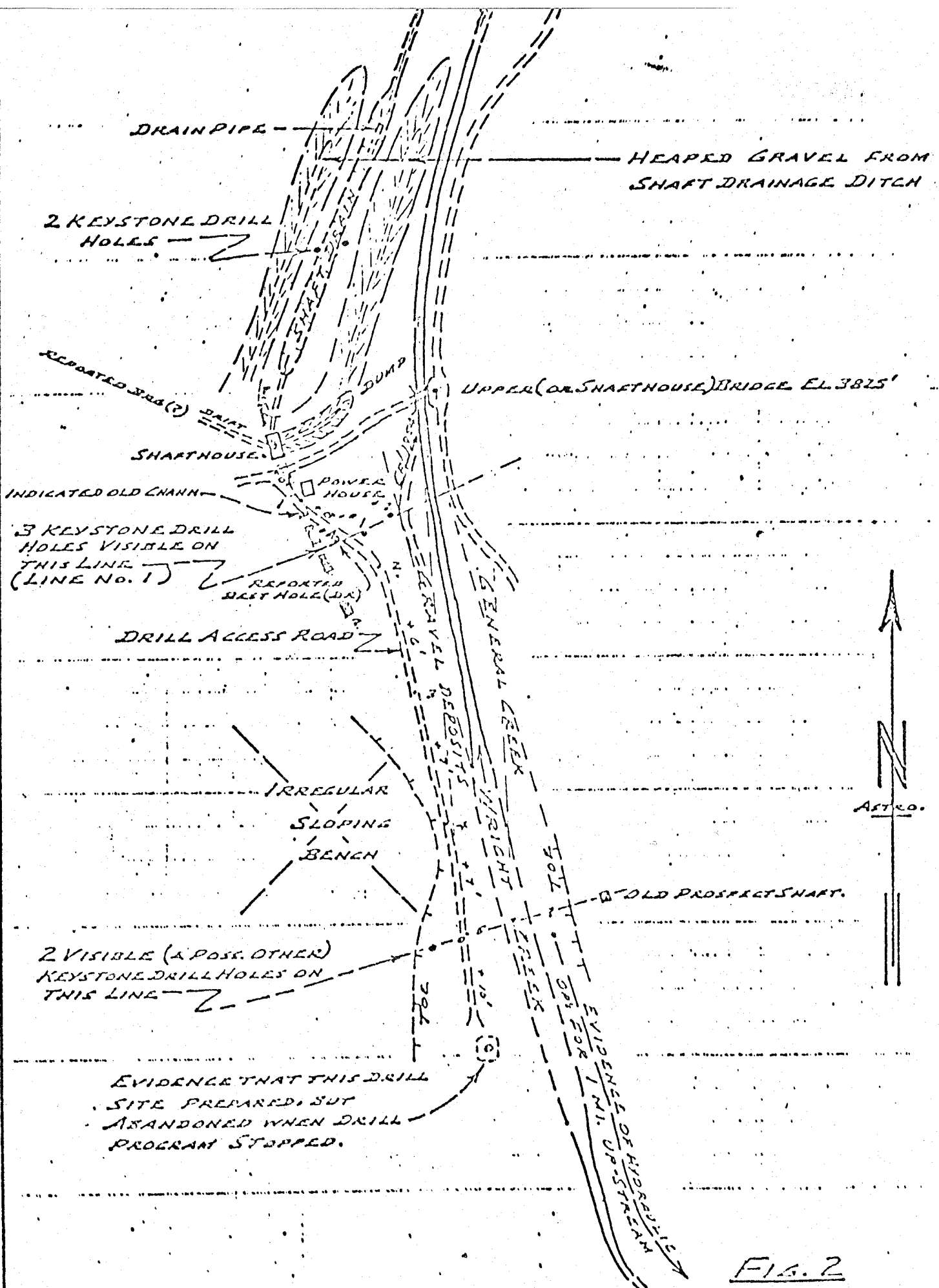


FIG. 2

SURPRISE RESOURCES LTD. - DRILL-HOLE & GENERAL DETAIL  
 WRIGHT CREEK, ATLIN, B.C.  
 SCALE: 1 IN. = 200 FT. JUNE 1971

beyond the Otter Creek bridge. The 1955 shaft and camp, adjacent to the No. 1 line of Keystone drill holes and situating about 1 mile south of the lower Wright Creek bridge, is 16 road-miles from Atlin.

The Wright Creek terrain, like that of Otter Creek, is flatly rounded - particularly within the headwaters area of the creek. However, the Wright Creek headwaters storage capacity is considerably smaller and less effective than that of Otter Creek and, as a consequence, its flow is smaller and more seasonal. Wright Creek, including its west-flowing branch, is only about 6 miles long; its 7 square-mile drainage area is less than half as large as that of Otter Creek. Within the following intervals average stream gradients are:

- (a) Headwaters to shaft-camp bridge, 2.7 mi. @ 6.8%.
- (b) Shaft-camp bridge to lower bridge (flats), 1 mi. @ 2.3%.
- (c) Lower bridge to mouth (canyon section), 2.2 mi. @ 6.2%.

#### HISTORY

Wright Creek has been worked mainly along its upper section - along, and for a short interval below its westerly-flowing part. The broad, generally flatter valley section between the bend and the lower canyon has been explored by drill holes and a shaft in fairly recent years. First placer mining was by small-scale sluicing methods during brief spring-early summer run-off periods; existing reports contain little factual data on which the volume and tenor of the gravels worked might be estimated.

Between 1936(?) and the mid-1940's Hodges and partners carried out hydraulicking operations, using one or two small monitors. This mining was consistently hampered by a lack of water; after the spring run-off there was, reportedly, only enough for about four 1/2-hour runs per day. Some production data, from W... Johnson's Oct. 22, 1963 letter are:

1936-37, 16,000 c.y. yielded \$13,759 (485 oz. gold), or 86¢/c.y.

1938 , 13,800 c.y. yielded \$32,715 (1154 oz.), or \$2.36/c.y.

The latter grade, at the present \$120/oz., would be approximately \$8/c.y.

During 1951-52 the pay channel, at about 170 ft. south (upstream) of the present shaft-house, was explored by 3 (plus one abandoned) holes comprising Line No. 1 (Fig. 2). Two of these penetrated pay-gravel and bedrock forming the west brow and side, respectively, of the channel; the third was stopped in gravel - possibly at 4'-6' above the bedrock floor(?). Holes are on approximately 40-foot E-W centers. The drill logs indicate that bedrock, at least locally, is black slate. The drill-indicated depth of the old channel is about 18 or 20 feet, and the indicated average thickness of pay gravel is about 13 feet - including the near-rim intersection. The weighted-average grade (1954) of the 3 intersections is \$12.64 per c.y.; the grade, on \$120/oz. gold, is about \$43 per c.y. The average and individual grades of these intersections is from 5 to 8 times larger than the grade of the best previously-reported production; hence, it is highly unlikely that they are representative of pay gravels underlying this general interval of the creek.

In 1952 six holes were drilled on an indicated 800-foot wide, and relatively flat cross-section of the valley. However, the writer was unable to find any evidence of them during his recent visit. Subsequent re-examination of the available data suggests that the line of holes may locate 1800 feet below the lower, rather than the upper bridge. This possibility is based on map and field indications of the valley topography and bedrock depths. As all holes encountered bedrock (per photocopy) at depths between 11-19.5 feet, it is hardly likely that they were collared anywhere on the drift and alluvium-covered flat between the bridges or, specifically, on a line 1800 feet down-stream of the upper bridge.

Also, there was no evidence of even the former existence of requisite drill-access roads leading to this location. The writer now concludes that the most logical place to investigate is an indicated 'flat' cross-section of the valley at about 1/2 mile north of the lower bridge.

During 1956 the existing shaft was sunk to a probable depth of about 110 feet. In view of the bedrock depths indicated by the Line No. 1 drill holes, it is unlikely that it reached the 'reported' depth of 136 feet. From the shaft bottom a drift was driven (in gravel?) for 180 ft. northwest, reportedly to explore the west rim, when the obvious target would have been the pay-gravels intersected by the up-stream line of drill holes - particularly those intersected by Hole No. 4. In 1957 a drift being driven towards Line No. 1 was stopped after an advance of 40 feet - apparently because of a pump failure.

#### CLAIMS

The writer and T. Connolly check-chained the location lines of P.M.L.'s 1686, 1701, and 1700; T.O. and S.J. Connolly checked-chained the claims south of the latter while the writer was engaged in other surveys. The actual position and length of the above-noted claims is shown on Fig. 1. However, claims north of P.M.L. 1686 have yet to be checked; it is expected that this will lead to some revisions of the 'official' claim plots.

#### FIELDWORK

June 9, p.m. - Preliminary reconnaissance; locate shaft-house on Map 104N/11-W 1/2; run chain-line for 2000 feet north (d/s) of upper bridge.

June 10 - Check-chaining claims; search out and survey old Keystone churn drill-hole collars; search for Line No. 2 drill-hole collars and/or evidence of old drilling operations.

## GEOLOGY

Up-stream of the upper bridge the valley is continuously drift-filled and largely blanketed with tailings (boulders, gravel, sand) from former mining operations. Between bridges, the valley expands from about 200-300 ft. to roughly 700 feet in width, and appears to be floored by 100 or more feet of glacial till; this flat, poorly-drained area is superficially covered by tailings and natural alluvium.

Other examination priorities precluded personal inspections of the few, out-of-the way bedrock exposures. However, G.S.C. Map 1082A shows soft, talc-altered ultrabasic rocks underlying Wright Creek from about 300-3000 feet north of the lower bridge - which probably explains the local increase of the creek-gradient and down-cutting in this locality. The G.S.C. map also indicates that the up-stream parts of the valley are underlain by cherty and argillaceous rocks of the regional Cache Creek Group. Bedrock penetrated by the Line No. 1 drill holes is logged as black slate. More probably, however, it consists of the typically shaly argillite and argillaceous quartzite of the general locality which, if striking across the trend of Wright Creek as is suggested by the G.S.C. mapping, might be reflected in the long profile (hump and hollow?) of the floor of the buried pay-channel.

## PRELIMINARY APPRAISAL

The mile-long, 400-700 foot-wide flat area between bridges is apparently underlain, superficially, by a thick blanket of the typical local clay/silt/sand till. That this is probably water-saturated is evidenced by the flat, locally swampy cover and sinuous, braided stream pattern. Therefore, even surface mining (mechanical or hydraulic) in this area might be difficult and costly. Such an operation would probably entail relocation and deepening of the creek channel, and continuous unwatering (via sumps, pumps, etc.) of the working area. These and other factors could restrict operations and increase mining costs to levels perhaps not

justified by the existing reserves (?) of pay-gravel. The writer's revised estimates of the potential profitability of mining a 1400-foot length of pay gravel in this locality are based on a hopefully-realistic extrapolation of the figures provided by the Line No. 1 drilling, and on the difficulty of mining in water-saturated ground. Values previously on \$35 per oz. gold base are transposed to the current \$120 per oz. base:

Preliminary Estimates:

(a) Based on uncut 1954 drill-hole sample data:

Gross Recovery, 45,000 c.y. @ \$23.46		\$1,056,000.
Stripping, 515,000 c.y. @ 0.50	\$257,500.	
Mining, 45,000 c.y. @ 1.00	45,000.	
Washing, 45,000 c.y. @ 0.25	11,250.	
Royalty, etc.	53,000.	366,750.
Gross Profit		\$ 689,250.
Dam construct., 18,000 c.y. @ 0.50	\$ 9,000.	
Bridges and light structures	4,000.	
Install washing/waste disposal facilities	40,000.	
Roads	2,000.	
Financing, interest, overhead	20,000.	
Contingencies (mainly operational)	25,000.	100,000.
Net Profit		\$ 589,250.

(b) Based on cut drill-hole assays:

The average of these is cut to a level equal to twice the current value of the 1938 production:

Gross Recovery, 45,000 c.y. @ \$16		\$ 720,000.
Pit-preparation & mining costs	\$366,750.	
Plant installation cost, etc.	100,000.	466,750.
Net Profit		\$ 253,250.

(c) Based on tentative break-even grade:

Gross Recovery, 45,000 c.y. @ \$11		\$ 495,000
Pit-preparation & mining costs	\$366,750.	
Plant installation cost, etc.	100,000.	466,750
Net (residual) Profit		\$ 28,250

PRELIMINARY RECOMMENDATIONS

- (1) Complete check (chain) survey of claims.
- (2) Complete reconnaissance investigation of property.
- (3) Delineate pay-channel over 1400' length in vicinity of 1956 shaft:  
Suggest use of overburden drill in conjunction with geophysical (resistivity) profiling on cross-lines 200 ft. apart.
- (4) Sample (and check-sample vic. Line No. 1) indicated channel via (6" dia.) Keystone churn-drill or equivalent equipment.
- (5) Pending results of above, investigate water content and permeability of glacial and alluvial deposits overlying pay-gravels - re. subsequent detailed feasibility studies.