



PLACER DEVELOPMENT LIMITED

TO: File V-168 APRIL

DATE: 10 December 1982

FROM: W. Pentland

RE: PROPOSED DIAMOND DRILL PROGRAM

800605

Diamond drilling on the April property on Lyell Island in the Queen Charlotte Islands has found a zone of interesting gold values with intersections up to 47 meters long. Included are two drill intersections of approximately .50 oz/t. Au over 6 meters. A favourable zone over 400 meters long is indicated.

Proposal:

It is proposed that an initial program of up to 1000 m of diamond drilling in 6 holes on two sections be completed at a cost of \$175,000 in an effort to further evaluate the potential of the favourable zone.

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Location and Access (52°41'N; 131°41'W)

The area of interest is located on the April 3 mineral claim in the northwest corner of Lyell Island. It bounds on Richardson Inlet.

Access is by air; float plane or helicopter, from Sandspit, B.C. lying 65 kms to the north. Heavy equipment such as diamond drills are brought in by barge from Queen Charlotte City located a few kilometers northwest of Sandspit.

Geology:

Gold mineralization has been found in a rhyolitic unit of the Masset Formation of Tertiary age. This particular unit strikes southeast from a point near the shoreline on Richardson Inlet for some 300 meters where it is disrupted by a fault trending east-southeast between Richardson Inlet and Takelley Cove. Scattered outcrops of rhyolite occur for some distance along the fault, as marked by a sharply incised creek, with a major section appearing to the south of the fault approximately 350 meters southeast of the initial point of disruption. While not certain of the movement on the fault it would appear the north side is down with little lateral movement.

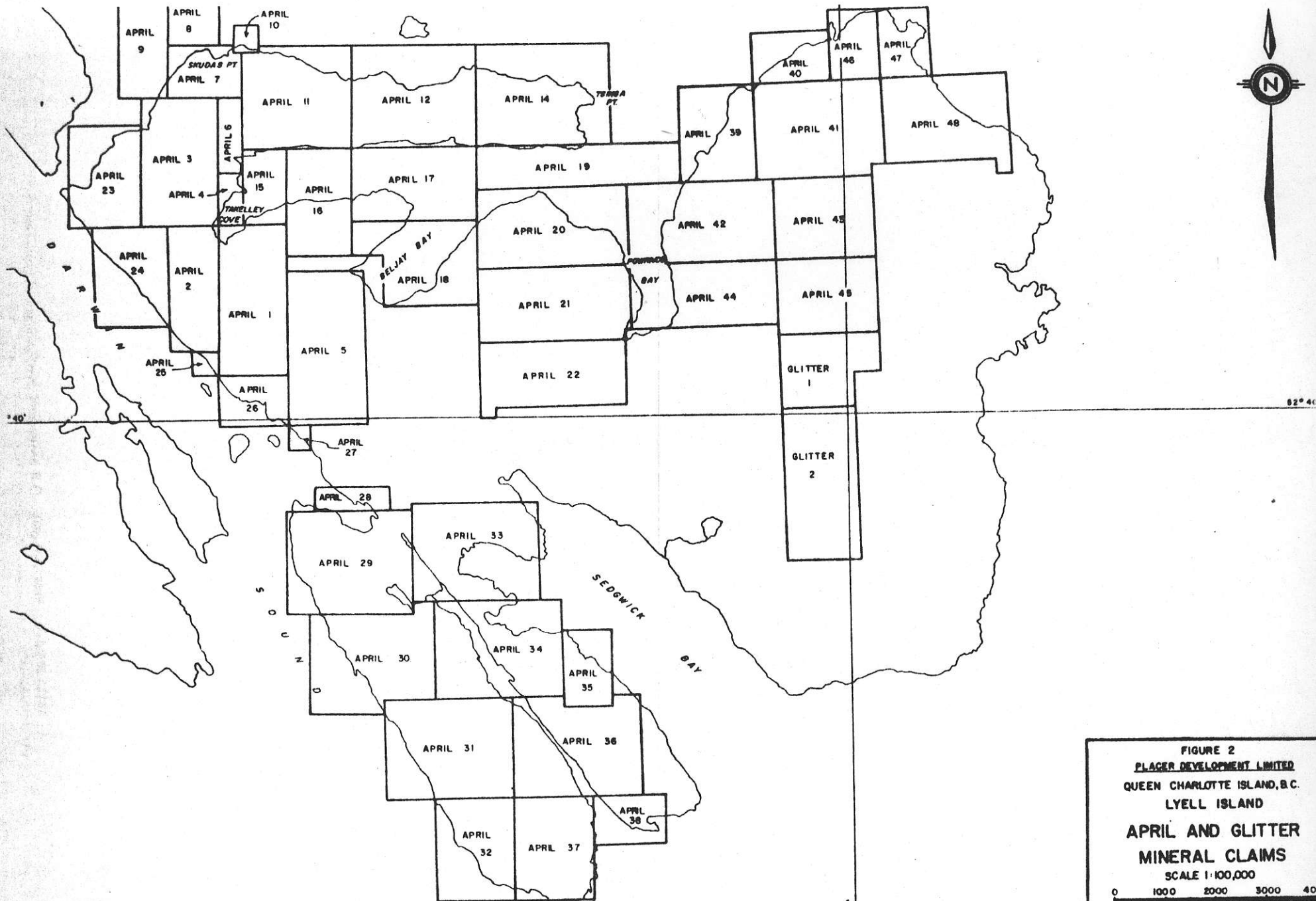


FIGURE 2
 PLACER DEVELOPMENT LIMITED
 QUEEN CHARLOTTE ISLAND, B.C.
 LYELL ISLAND
 APRIL AND GLITTER
 MINERAL CLAIMS
 SCALE 1:100,000
 0 1000 2000 3000 4000
 METRES
 SEPT. 1981 W.S.P. (J.S.)

At the northwest end the rhyolitic zone, which is heavily rust stained on surface, is in the order of 30 m - 40 m thick and dipping vertically. Progressing to the southeast the dip of the unit flattens to the order of 25° to the northeast. It also thickens rapidly with depth to in excess of 100 m.

The rhyolite unit is composed mainly of tuffs varying from fine grained to lapilli. Much of the unit is fragmental with clasts up to one half meter. Spherulites are common occasionally composing as high as 50% of the rock. They form finely banded zones at times.

The overlying hanging wall is composed of moderately chloritized andesite flows and possibly tuffs. They are shot through with quartz, carbonate and zeolite microveins. Andesite, along with dacitic tuffs, is also found below the rhyolite unit.

Minor sections of sandy sediment were logged in several holes with the best example occurring near the base of the rhyolite zone in hole 81-6, 7 and 8.

Feldspar porphyry and andesite dikes are fairly common throughout the zone. Diorite was intersected in hole 81-15 near the northwest end of the rhyolitic unit.

Mineralization:

Gold in excess of 1 gm/tonne has been found in 11 of the 18 NQWL and BQWL holes drilled to date. Most of the intersections ran 2-5 gms over 3-12 meters with several holes containing more than one intersection. Holes 80-5 and 81-17 assayed 17.07 gms and 11.20 gms/tonne respectively over 6 meters.

The gold is generally restricted to the fragmental lapilli zones with occasional low values (<1 ppm) in the fine grained tuffs. Quartz occurs within the rhyolitic unit as areas of heavy floodings, a ubiquitous microveining composing up to 5% of the rock and occasional veins up to 15 cms thick.

Pyrite also occurs in various modes including disseminated grains throughout the core. It is also found as pervasive disseminations and fine veining in amounts commonly less than 2.5% over a few meters. Pyrite also

occurs as inter-fragment filling with occasional sections containing up to 20%.

Studies have been done in an effort to determine if there is a relationship between the gold and some mode of quartz or pyrite but without success. While microscope study has shown that most of the gold is on boundaries or in the cleavage planes of pyrite no readily recognizable relationship is seen in the drill core. Weathering of the core has shown that ankerite is present and closely associated with the gold. This point will be of assistance in the future.

The most interesting results to date are at the southeast end of the drilling area where holes 80-5 and 81-6, 7, 8 and 17 have indicated a definite zone of above background values with a high grade core in the order of 20 gms/tonne. Hole 81-8 intersected 47.5 meters of mineralization and was still in the zone. The zone strikes southeast and dips northeasterly into the hill at approximately 25°. If the present structural interpretation is correct the favourable rhyolite unit should continue at depth on the north side of the fault for a minimum strike length of at least 400 meters to the east-southeast. Low gold values also occurred at the bottom of hole 81-16 located in the rhyolite extension on the south side of the fault.

A study has been completed regarding the relationship of arsenic to gold and silver. It was found that there are two populations with the area referred to above containing the high Au values being distinct relative to the values to the northwest. This further emphasizes the potential to the southeast and the need for additional drilling.

Lastly, it should be noted that several grab samples from rhyolitic outcrops in the creek assayed in excess of 5 gms/tonne and were the highest of all the surface samples collected.

Proposed Program

It has been proposed that 6 holes be drilled from 2 sites at an estimated cost of approximately \$175,000. This is believed to be the minimum program which should be considered in view of the cost of locating a camp and diamond drill on the island. It is estimated that a fan of 3 holes from a single site could be drilled for approximately \$120,000.

Should the indications be clearly negative in the initial holes there would be little justification for drilling a second fan of holes. With the present evidence this case appears unlikely however.

A second alternative would be to establish a single drill site and angle the holes to either side, i.e., into the apparent strike of the rhyolite. Although not particularly desirable the difficulty in finding drill sites could make this procedure mandatory.

It is suggested that the preferred period for doing the work would be May and June. The time required in the field would be a maximum of 4-5 weeks.



W.S. Pentland

WSP/cs
Attachment

Cost Estimate - 1000 m Diamond Drill Program

. 1000 m diamond drilling (NQWL) @\$75.00/m.	\$75,000
. Camp material and supplies	4,000
. Labour*	27,500
. Air fares - PWA and TPA	3,650
. Helicopter - 20 hrs. x \$500/hr.	10,000
. Barge - Vancouver to Lyell Is. + return	4,000
. Barge - Queen Charlotte City to Lyell Is. (2 trips)	7,000
. Sample shipments	1,000
. Drill site clearing and preparation	4,000
0. Core rack	1,000
1. Assaying** - 350 samples x \$10.50/sample	3,675
2. Expediter - Sandspit	1,000
3. Food - 212 man days @\$20/man/day	4,200
4. Report preparation and drafting	2,500
5. Property payment to J.M.T. Services Corp.	10,000
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	\$158,525
Contingencies at 10%	15,800
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	174,325

*Labour

1 Senior Geologist - 6 wks. @\$250/day	\$10,000
1 Geologist - 5 wks. @\$175/day	4,900
1 Cook - 5 wks. @ \$150/day	4,200
1 Core splitter - 5 wks. @\$150/day	4,200
2 Field men - 2 wks. @\$150/man/day	4,200
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	\$27,500

** Assay Charges

Au - \$4.00/sample
Ag - \$2.50
As - \$4.50