

CORPORATION FALCONBRIDGE COPPER

FILE

MEMORANDUM

093A/03

821193

DATE: September 12, 1984
TO: D. H. Watkins
COPIES TO: M. J. Knuckey, L. D. Pirie
DE FROM: A. J. Davidson
SUJET SUBJECT: STARLIKE PROPERTY

SUMMARY

The Starlike property is located at Horsefly B. C., 50 km east of Williams Lake. Previous work by Exploram in 1974 returned assays of 1.23 g/T Au/87.5 m. in drilling. The property was restaked and optioned by Placer in 1983 who intersected 1.3 g/T/47 m. Mineralization is developed in potassic alteration zones associated with quartz-chalcopyrite veinlets in Triassic augite porphyry flows and crystal tuffs. Although some believe that the mineralization is similar to some of the epithermal Au deposits in the Toodoggone (Lawyers), I feel it is a simple alkalic magmatic (porphyry?) deposit such as Copper Mountain, Afton and the QR deposit. No high grade (>3.0 g/T Au) gold values have been reported on the property, and there is only one outcrop on the property. This coupled with a complicated land situation leads me to recommend no involvement by CFC at this time.

LOCATION AND ACCESS

The Starlike property is situated 8 kilometres south of the village of Horsefly, and 50 kilometres east of Williams Lake, in the Cariboo Mining District of south central B. C. The claims are centred at 52°14'N latitude and 121°24'N longitude, and lie within NTS map areas 93A/3 and 93A/6. The property is easily accessible by 4 wheel drive vehicle (Figure 1).

PROPERTY

The Starlike property comprises the Megabuck property (44 units) under option from M. Rebagliati by Rockridge Mining Corp. and the Ravioli claims (333 units) which surround the Megabuck wholly owned by Rockridge

Mining Corp. (Figure 2). Rockridge Mining Corp. is a John Brock (Welcome North, Tillicum) company on the VSE.

PREVIOUS WORK

The earliest recorded work on the property took place in the 1960's, prompted by the wave of exploration for porphyry copper deposits.

During 1966 and 1967, Helicon Explorations Ltd. and the Magnum Consolidated Mining Company carried out geological mapping and an L.P. survey on the eastern boundary of the present Starlike property. Chalcopyrite and pyrite are reported to occur in lightly fractured granodiorites (B. C. MMAR 1967).

Between 1973 and 1977, Exploram Minerals carried out further exploration for porphyry copper deposits on the property. The programme consisted of reconnaissance L.P. and magnetic surveys and geochemical soil and rock sampling over selected areas of the HS, WL and Ray claims.

In 1974, Exploram drilled five holes (74-1 and 74-5) to test L.P., magnetic and gold-copper geochemical soil anomalies on the Magabuck and BE claims.

Hole 74-1 returned assays of 1.23 g/T Au and 0.13% Cu over 87.5 metres and 1.41 g/T Au and 0.11% Cu over 36.6 metres was reported from Hole 74-2. Individual assays ranged to 2.60 g/T Au. The rocks were all potassic altered alkaline intermediate volcanics (Figure 4).

In 1983 Placer Development optioned the property and drilled 19 holes Placer's best intersection was 1.3 g/T Au over 47 metres.

REGIONAL GEOLOGICAL SETTING

The Starlike property is situated within the Quesnel Trough of the Intermontaine Belt (Figure 3). The trough forms the southern part of a northwesterly trending belt of volcanic and sedimentary rocks of Upper Triassic to Jurassic age, extending from the Princeton area in the south to the Stikine in the north. Width of the belt ranges from 30 to 60 kms.

The volcanics of the Quesnel Trough consist of a mixed alkaline and calc-alkaline assemblage, which is predominantly alkaline in the north. The succession is mainly marine consisting of a thick sequence of Upper Triassic alkali basalts and derived volcanoclastics and tuffs.

The volcanics are intruded by comagmatic complex alkaline plutons which range from syenogabbro to alkali syenite.

The alkaline suite prophyry deposits of the Quesnel Trough (e.g. Copper Mountain, Afton, Cariboo Bell) are related to and coeval with the alkaline plutons and their volcanic host rocks. They are characteristically low molybdenum, gold bearing, copper porphyry deposits.

In general, the deposits occur in breccia zones within the plutons and in zones of intense faulting, fracturing and alteration in the surrounding volcanics. Hydrothermal alteration is developed around the plutons and is characterized by a zone of potash feldspar and biotite succeeded outwards by chlorite, epidote, carbonate and albite (propylitic zone). Sulphides, in order of abundance are pyrite, chalcopyrite, bornite, chalcocite and pyrrhotite; they occur in all zones of alteration (Barr et al 1976).

The QR (Quesnel River) deposit was discovered in 1975 during investigation of an airborne magnetic anomaly and reserves are 950,000 tons grading 0.21 ozs Au/ton (6.53 g/ton) "in a compact near surface deposit".

The gold occurs within the propylitic alteration zone related to a diorite-monzonite pluton. The pluton has intruded a thick and extensive sequence of basaltic rocks and derived sediments, including carbonates and/or carbonatized basalts. Current belief is that the gold was introduced during hydrothermal alteration and was precipitated in the carbonate rich rocks within the pyrite-epidote enriched propylitic zone. As yet there is no obvious pattern to the distribution of gold within the zone. There appears to be a combination of stratigraphic and hydrothermal controls, and ore shoots crosscut lithological boundaries. Post 'ore' faulting adds to the complexity.

LOCAL GEOLOGY AND MINERALIZATION

The Starlike property is underlain by a complex sequence of Triassic Jurassic basic alkaline flows and volcanoclastics. These flank the granodiorite to

the east and are partly overlain by Tertiary basalts in the west. The volcanics are maroon and green augite and feldspar porphyry flows and tuffs with minor felsic tuffs, coarse pyroclastic breccias and sediments.

The only outcrop on the property is an augite-feldspar crystal tuff with fine veinlets of quartz-chalcopyrite. No sericite alteration was noticed but potassic alteration was strong in the matrix (stained sample). Gold values up to 2 g/T had been returned from this outcrop. Three drill holes were examined and a direct correlation between sericitic alteration and low gold values was noticed. High gold seems to be associated with potassic flooding out from quartz chalcopyrite veinlets. It follows that values drop off with a decrease in the number of these quartz chalcopyrite veinlets. The Placer drilling outlined an area of 260 X 150 m. containing anomalous gold values (> 0.5 g/T Au) within which an area 140 X 80 m. contains gold values all greater than 1.0 g/T Au (Figure 4). There is some suggestion that this zone dips to the south and if so Placer may have drilled downdip.

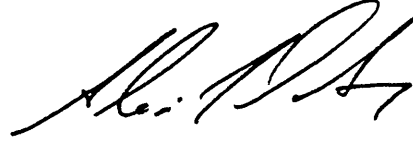
DISCUSSION

Archer-Cathro who have been operating the project for Rockridge believe that the Starlike mineralization may be better explained using an epithermal Au model rather than a Quesnel River model. They cite the presence of sericite alteration, and some auto brecciated? zones with epidote alteration as evidence of an epithermal origin. However I feel the Starlike property fits the QR, Afton, Copper Mountain extremely well and I think the evidence for an epithermal affinity is too tenuous to be believed. In fact as mentioned above the gold values appear to have a strong negative correlation with sericitic alteration.

POTENTIAL

Although the property probably has potential to develop some tonnage of 1-2 g/T Au material the absence of any higher values tends to suggest that there is little potential to develop any tonnage of significant or even economic grade. These low grades together with the fact that there is no outcrop on the

property, and that the deal is already complicated leaves little room for enthusiasm or optimism. I recommend no further involvement in the property.

A handwritten signature in black ink, appearing to read 'A. J. Davidson', written in a cursive style.

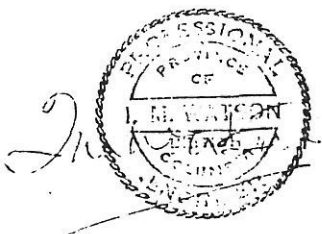
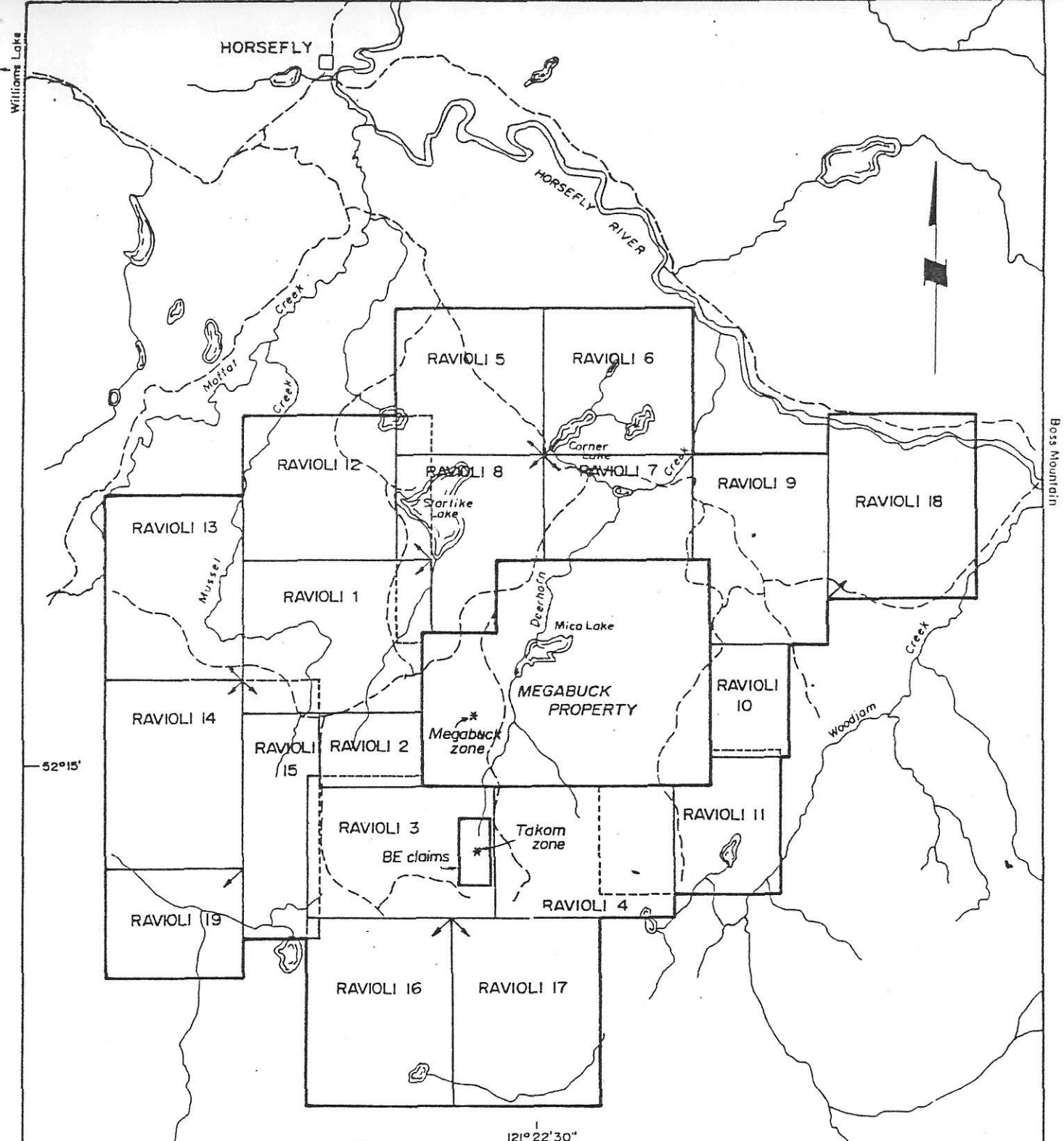
A. J. Davidson

AJD/ik



INDEX MAP

FIG. 1



ROCKRIDGE MINING CORPORATION

CLAIM AND LOCATION MAP

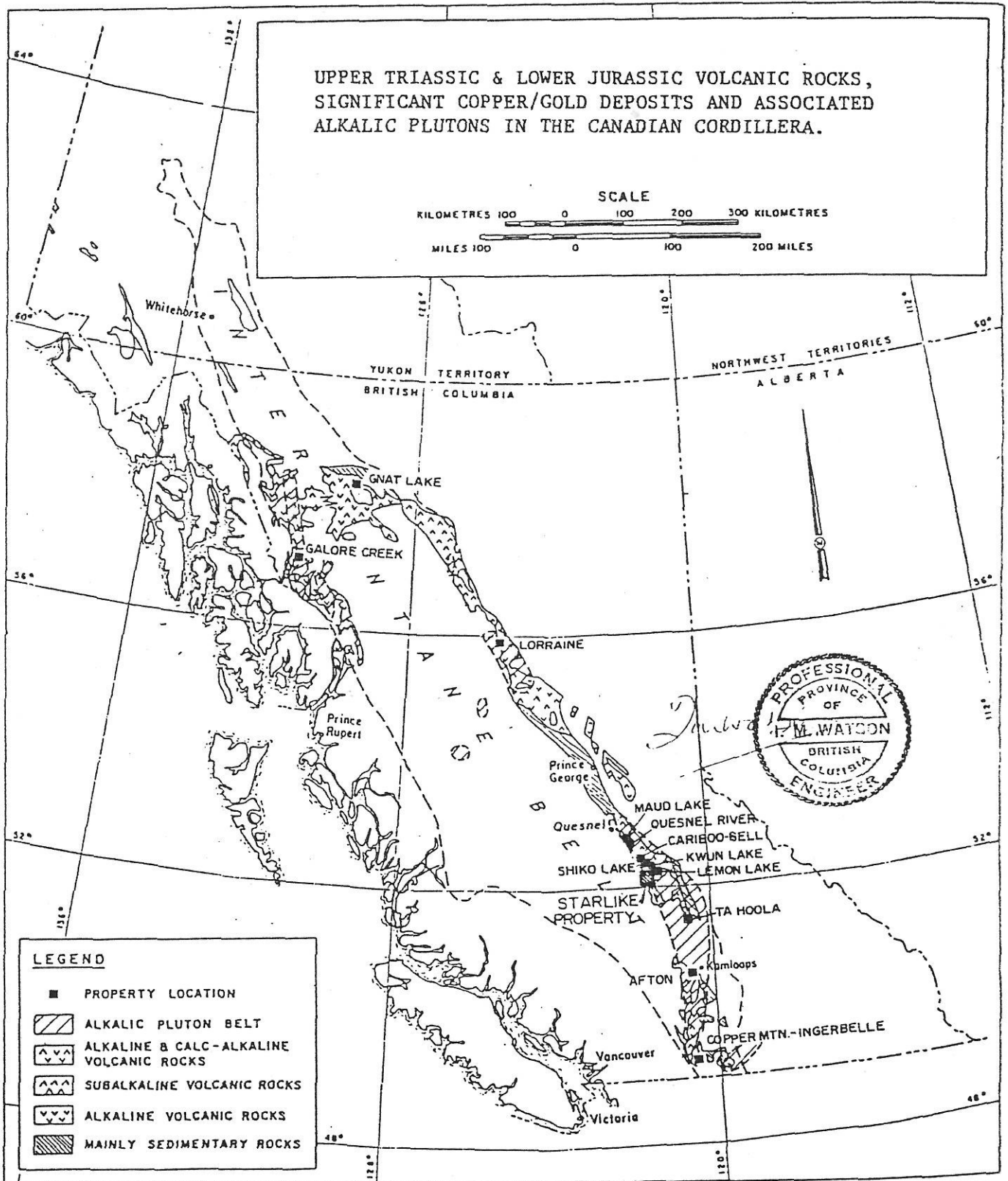
STARLIKE PROPERTY

Horsefly Area, BC.

Scale 0 1000 2000 3000 4000 metres

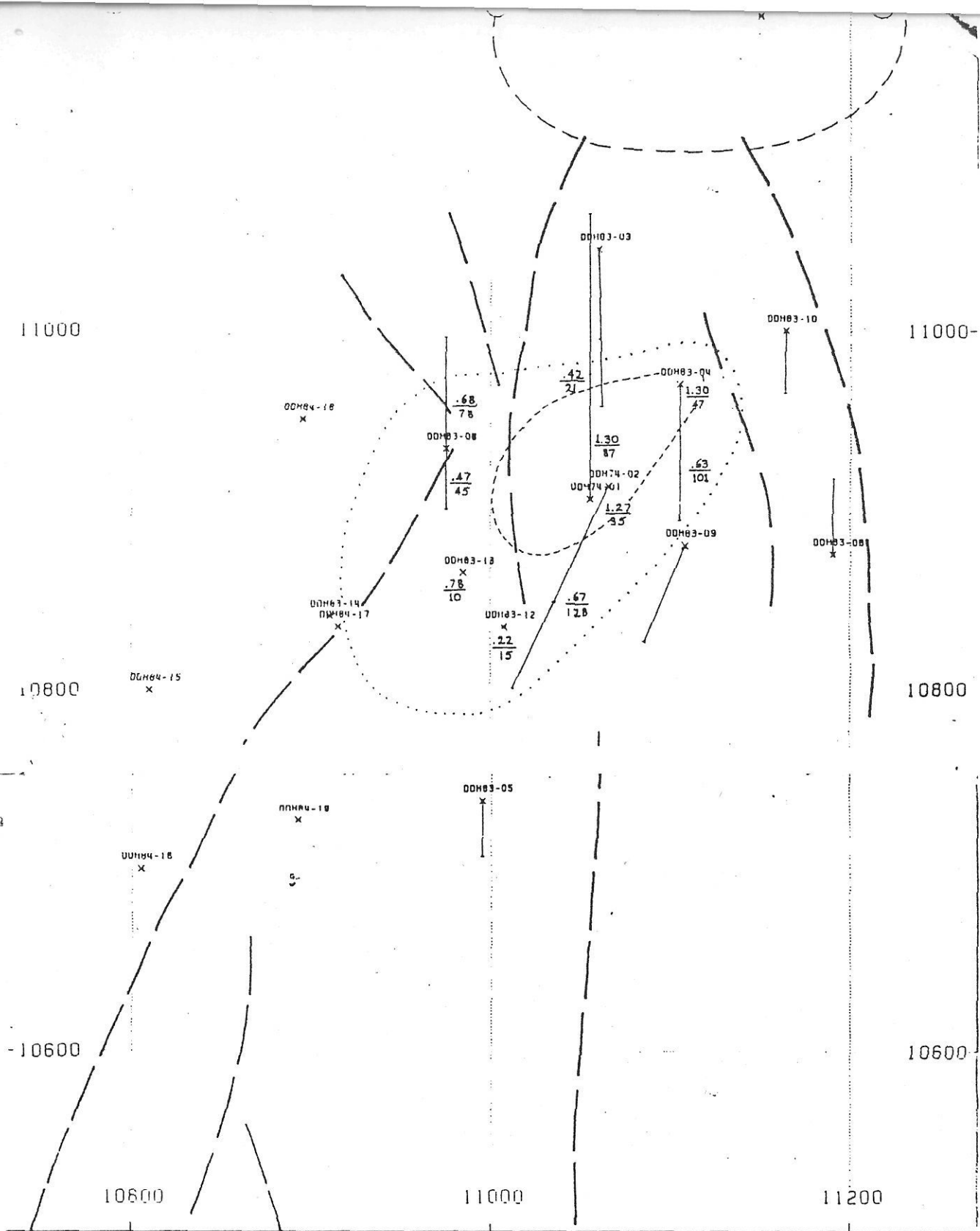
I.M. WATSON & ASSOCIATES LTD

SCALE	DATE	BY	N.T.S. No.	DWG. No.
1:75000	JAN. '84		93A/3W.6W	Fig.2



Modified from D. A. Barr et al., C.I.M. Special Volume No. 15, 1976.

FIG. 3



PLACER DEVELOPMENT LIMITED

"GEOLOG" SYSTEM:

STARLIKE PROPERTY

PROJECT NAME: HORSEFLY

LOCATION MAP

DRILLHOLE LOCATION MAP

FIGURE 4.4.

LEGEND

- - - - - 1.3 ppm Au
- 0.2 ppm Au
- ppm Au / METERS
- - - - - IP } INTERPRETED ANOMALY
- VLF-EM }

TICK SPACING ALONG HOLES = 100.00
 PLOTTED ON: 84-03-15 SCALE 1: 2000 (METRES)

