92F-178 Georging

MINERAL OCCURRENCE #1

1 - 1

"Georgina Gold Showing"

006400

GENERAL INFORMATION:

Location and Access:

Within ½ mile SW of #19 highway, on Nanoose Creek, 1½ miles north of Nanoose Bay post office, 18 miles north of Nanaimo.

List of Reports and Maps:

B.C. Minister of Mines:

- 1) Annual Report, 1934, p. F-7
- 2) Annual Report, 1935, p. G-46
- 3) Annual Report, 1936, p. F-63 (by T.R.Jackson)
- 4) Bulletin 20, 1944, Part V: Lode Gold Deposits, Vancouver Island, B.C. (by J.S.Stevenson)
- C.P.O.G. report: The Mineral Resources of the E & N Railway Company Land Grant, p. 67 (by Matthews)

Gunnex report: Geological report of Georgina Gold Showing, 1963, with map and plan of showing (by A.P.Hutchison)

G.S.C.: Map 49-1963, Geology of Alberni Area, preliminary map (by J.E.Muller, 1963).

Work done by Gunnex 1963/64:

Some prospecting was done in the area in 1963. A.P.Hutchison mapped the showing (see report). No other work has been done since.

Standing:

All mineral resources on Georgina Showing except Au and Ag are held by C.P.O.G. claim map indicate no staking, hence open (Jan., 1965).

GEOLOGY:

The general area is in argillaceous Sicker sediments (mapped originally as Vancouver volcanics by Hutchison and called greenstone in CPOG report). On north side of creek it is overlain by basal conglomerate of Nanaimo group.

A strong 6' wide NW trending shear occupies the bed of creek. The showing is within a 4" to 5" quartz vein, traced 20' from shear into the creek bank. There are a number of smaller but barren veins on either side. Attitude of vein is N75°W/75°N. Disseminated chalcopyrite and pyrite is found in the vein.



SUMMARY OF WORK:

There is no recorded production from this property. A small shaft had been sunk (before 1934?) on the side of the creek for 35' along pitch of the vein; drift from it carried under and across the creek. Some trenching had been done also.

In 1938 it was examined by E. Brolund of "Cominco", who mentioned the possibility of shear zone containing ore shoots. This zone was sampled in one place; the assays were:

width 4': Au - 0.4 oz.; Ag - Nil; Cu - nil; width 1': Au - 0.1 oz.; Ag - 0.05 oz.; Cu - 0.5%

(According to published literature, assays of selected sulphides returned as high as Au 1.6 oz. and Cu 7.4%.)

Hutchison reports (1963) that a 5' sample was taken at the end of trench behind shaft and also in the quartz vein between shaft and creek. Assays were, respectively:

> width 5.0': Au - trace; Ag - trace; width 5" : Au - 0.12 oz.; Ag - 0.3 oz.

In addition, about 500' up creek from showing two samples were taken in creek to cut the shear zone and a number of quartz veins, which assayed:

> width 14.0': Au - trace; Ag - trace; width 14.0': Au - 0.02 oz; Ag - 0.10;

Shaft could not be entered at this time, being full of water.

Hutchison thought that the showing did not seem to be significant, although he recommended close prospecting and mapping in his report.

> H. Laanela January, 1965.

HL:s



MINERAL OCCURRENCE #4

4 - 1

"MacMillan Copper Showing" - ("Bear" Group)

GENERAL INFORMATION:

Location and Access:

About 8 miles west of Nanaimo at the south end of Blackjack Access partly by Mount Benson look-out road, which turns off Ridge. from Harewood road 4 miles out of Nanaimo, and joins with Nanaimo Lakes road east of First Lake.

List of Reports and Maps:

Apparently there are no government reports on this showing. Nor does CFOG report mention it. Only maps and reports on this showing were made in late 1963 - early 1964 by Gunnex Limited, they are:

- Notes on MacMillan Showing by A.P.Hutchison, Dec. 18, 1963. 1)
- 2) Geology map of "Bear" claims, by A.P.Hutchison, 1963.
- 3) Plan of trenching and sampling (with assays) on
 4) Magnetometer Survey map of "Bear" claims, 1964. Plan of trenching and sampling (with assays) on "Bear" claims, 1963.

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- Geochemical (THM) Survey map of "Bear" claims, 1964. 5)
- 6) Geochemical (Cu) Survey map of "Bear" claims, 1964.
- Preliminary survey of MacMillan Showing, Geological Report 7) No. 4, Sept. 2, 1963, by A.P.Hutchison.

Work done by Gunnex 1963/64:

It was shown to us by Mr. W. DeRoos of Nanaimo.

After staking "Bear" claims over the showing in 1963 the showing was mapped geologically by Hutchison. Magnetometer survey and soil sampling was done on the showing also. Considerable trenching and trench-sampling was done. There has been no additional work since.

The general area has also been mapped and geochemically sampled.

Standing and Staking:

The showing was staked on Sept. 22, 1962 by MacMillan and Godfrey, with 4 claims; they did some stripping. Following the lapse of these claims Gunnex staked it in September, 1963 ("Bear" claims #1-4). They have lapsed now.

Claim map (Jan. 1965) shows one new claim staked south of it, between "Bear" and Nanaimo River.

PROPERTY FILE 92F164

4 - 3

SUMMARY OF WORK:

Previous work:

MacMillan and Godfrey, after staking it in 1962, stripped an area of 100' x 200' with a bulldozer.

Pits have been found east and west of this area that are at least 50 years old.

Gunnex, 1963:

Soil sampling and magnetometer work was done on a 200' x 200' grid over an area of 2,800' x 2,800' (see sketch #2).

An elongated <u>soil anomaly</u> of probably medium value follows the base line and the breccia zone, measuring some 3,000' by 400' to 600' across. Both total heavy metal and copper anomalies coincide closely, indicating that the main mineralization would be copper.

The THM values range from background value at 50-80 ppm to anomalous values in 150 - 300 ppm range. The copper values range from background value of 40-60 ppm to anomalous values in 100 - 280 ppm range. The alignement of these anomalous values suggests some structural control, more or less coincident with the breccia zone.

The <u>mag survey</u> readings range from 350 to 810 gamma, with most values being in 400-500 gamma range (background). There seems to be a slight anomalous trend along the northern edge of west part of soil anomaly. One reading of 810 gamma occurs at the southern edge of the survey area.

Several trenches and pits were put into the breccia zone. Samples were taken and these assayed as follows:

Sample Length	<u>Au oz/ton</u>	Ag oz/ton	<u>Cu %</u>	
East Trench:				
441	tr.	tr. tr. tr. tr. tr.	0.04 0.03 0.03 0.08 0.03 0.04	
10"	tr.			
10"	tr.			
10"	tr.			
10'	tr.			
8*	tr.	tr.		
Middle Trench:				
13"	tr.	0.1	1.26	
10*	tr.	tr.	0.15	
42* tr.		tr.	0.04	
10'	tr.	tr.	0.04	
10*	tr.	tr.	0.09	
10" tr.		tr.	0.03	
101	tr.	tr.	0.01	
4•	tr.	tr.	0.09	
grab	0.01	tr.	2.18	

4 -- 4

Sample Length	Au oz/ton	Ag oz/ton	Cu %
West Trench: 10'	tr.	tr.	0.06
Pit #1: 7"	tr.	tr.	0.01
Pit #2: 6'	tr.	tr.	0.49
Pit #3: Grab	tr.	tr.	0.05
Pit #4: Grab	tr.	tr.	0.01
Pit #5: Grab	tr.	tr.	0.09
Selected Grab	tr.	0.1	3.00

As seen from this there is no ore of economic grade in these workings. On the basis of these results no more work seems to be warranted.

(Two sketch maps are included with this report).

H. Laanela January, 1965. 11 F

HL:s



Location of workings and geology

simplified after Hutchison's map.

H. Lanela/s-1985.







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MINERAL OCCURRENCE #5

5 - 1

92F-114

(Muller's #3) "Vulcan Group"

GENERAL INFORMATION:

EN.138

Location and Access:

These Crown-grant claims are short distance up on Deadhorse Creek, a tributary of Dash Creek, about 3 miles NE of Second Nanaimo Lake.

Access if via Nanaimo lakes logging road, then up Dash Creek road until Deadhorse Creek turn-off. Here a logging road goes up hill, to the adit on the creek.

List of Maps and Reports:

B.C. Minister of Mines:

1)	Annual	Report,	1904,	p.302
2)	Annual	Report,	1930,	p.303
3)	Annual	Report,	1937,	p.F-13
4)	Annual	Report,	1940,	p•73

CPOG Report: The Mineral Resources of E & N Railway Co. Land Grant, p.

Gunnex Reports: Geological Report on Vulcan showing, by A.P.Hutchison, 1953, with plans and map of showing. Also, Geological Report #2, Aug. 5., 1963, by A.P.Hutchison, p. 3.

Work done by Gunnex 1963/64:

Hutchison mapped the immediate area as well as the upper levels of the mine in 1963 (secreport). Some additional prospecting and mapping, as well as soil and silt sampling has been done in the general area during last summer, but no particular interest was paid to the mine. It was visited on several occasions, though. Some samples were taken also.

Standing:

The area surrounding and including the underground workings consists of 4 Crown-grant claims (48G, 49G, 50G and 51G), presently held by Siluerian Chieftain Mining Co. Ltd.

GEOLOGY:

The showing is in well defined shear zone up to 3 feet wide following the creek easterly, in <u>Vancouver volcanics</u>. A few hundred feet down the creek, westward, is an apparently sheared contact between feldspar-porphyry (Tertiary) and volcanics, in places overlain by Nanaimo sediments. The

PROPERTY FILE

shear contains two lenticular quartz veins 2"-6" across, heavily pyritized and containing smaller amounts of galena and sphalerite. Gold values up to 5.9 oz/ton have been reported over these narrow widths. The sheared rock itself apparently contains no gold values.

5 - 2

SUMMARY OF WORK:

Considerable underground work with a shaft down to 43 feet to water (at least another ladder below water). First level has been drifted 130' along the shear and second level has been drifted 15'. A grab sample from the quartz vein at surface and a 4.2' back sample across shear on first level assayed:

> Grab Au = 0.82 oz/ton, Ag = 0.2 oz/ton, Width 4.2' Au = 0.02 oz/ton, Ag = trace.

During last summer a traverse was made up creek from showing and at least another pit (or adit?) was seen several hundred feet upstream. It was full of water. The shear was followed for a distance. An old fallen down cabin was seen on the hillside NE of mine.

Sileurian Cheiftain did some underground work at the mine early in 1964, exact amount or nature is not known. They used an adit on the north side of creek, west of shaft. Apparently nothing interesting turned up.

Seems that this showing has been well explored at one time or other.

H. Laanela January, 1965. 13.1

HL:s



MINERAL OCCURRENCE #7

7 - 1

12 F-78

Regina

(Muller's #2; Hunting's #2 and 5)

"Regina Group"

EN. 147

GENERAL INFORMATION:

Location and Access:

About 8 miles SE of Port Alberni on China Creek road, on east side of Williams Creek. The workings are between elevations of 1,850 and 2,550 feet, in heavy timber above old logging slash, and from 1,000 to 2,000 feet from Williams Creek. There are at least 8 known workings in the group.

Workings can be reached by following an abandoned and overgrown logging incline to 1,880', thence through the bush easterly for 125' to the first (#1) working (short adit) at 1,860'. From a point 40' above #1 a trail winds easterly for 800' to an old cabin (now in ruins) at 2,025'. (This was formerly connected with China Creek by back-horse trail, now obscured.)

> A shaft (#2) is 100' SW from camp, at 2,100' An adit (#3) is 850' south from inclined shaft, at 2,300' Another adit (#4) is 100' S25°E from #3, at 2,370' Another adit (#5) is 225' S25°W from the last adit (#4)?, at 2,450' A caved cut (#6) is 125' S25°W from #5 (?), and 75' westerly from this is a second cut (#7). The longest adit (#8) is 75' N30°W from the last cut, at 2,500' (From Minister of Mines Annual Report, 1944)

Reports and References:

B.C. Minister of Mines:

- 1) Annual Report, 1898, p. 1197
- 2) Annual Report, 1930, p. 291
- 3) Annual Report, 1944, p. A150 (Stevenson) pins
- 4) Bulletin 1, 1932, p. 132.

Hunting's Geological Report: See Appendix II, Field notes for June 30 re #5.

Gunnex Reports:

- 1) Geol. Report #6, August, 1964, by H. Laanela (p. 4)
- 2) Weekly Report, August 17-23, 1964, by T.F.Schorn (re visit).

Work done by Gunnex 1963/64:

The area was visited in August, 1964, by T.F.Schorn and H. Laanela, guided by Mr. Harry "Cougar" Brown of Port Alberni. Only one shaft, dipping 45°S and reportedly 30' deep, was found at the time, near an old cabin (in ruins). Old railway grade was followed for about ½ mile, up steep hill, total trip 45 minutes from main road at China Creek. Trail is almost nonexistent, many windfalls.

PROPERTY FILE

We could not tell which of the workings it was; probably #2. Reportedly there are more cuts about ½ mile to the SW.

About 40 tons of hand-picked high-grade was piled at the shaft collar, showing Cu-Pb and other sulphides. Samples was taken here and also across 5' of quartz stringers on east side of shaft. Assays were respectively:

> Cu 2.57%, Pb 1.98%, Zn 9.01%, Au 0.02 oz/ton, Ag 1.8 oz/ton, and Cu 0.63%, Pb trace, Zn 0.75%, Au trace, Ag trace.

No other work has been done in the area by us.

Standing:

The property consists of (1944) 5 Crown-grants, lots #'s 49G (location of Hunting's #5, north of main group), 54G, 55G, 57G and 94G. (There are also lots 63G and 64G adjoining the group to the east, but there is no record of them in Stevenson's 1944 report). According to the report, lots 55G and 94G were held in good standing by Emelio Marillia of Port Alberni, while others had reverted to Crown and leased to various people.

The present status is not fully clear - according to latest claim maps (Jan, 1965) only lot 55G is shown as Grown grant, the rest of the area being shown as open ground, apparently reverted to the Crown. This matter should be checked with the Mining Recorder in Port Alberni.

GEOLOGY:

The area has not been mapped yet. It is either in Vancouver or Sicker volcanics.

Tight quartz-sulphide lenses and veins in green andesite have been explored by the various workings. Some of the andesite is strongly silicified and pyritized.

<u>#1 adit</u> (at 1,860' elevation) is in highly silicified and leached andesite, containing so much disseminated pyrite and ankeritic carbonate that the weathered rock is full of limonite.

The "Big Showing", a rusty outcrop exposed at 2,100' elevation on the logging incline, consists of similar material.

#2 Shaft is sunk in tight shear, partly filled with quartz, at N50°E/20°SE.

#4 adit is in a shear of Nll°W/70°E, which contains l' of gouge and crushed andesite. On the hanging wall over a width of l' are replacement veinlets of quartz and pyrite (only traces of Au-Ag). At 25' from portal the shear cuts a l' sheeted zone of N80°E/25°S containing several 2" quartz veinlets and a little pyrite. Main shear ends in the face against another, but barren, shear of E/60°S. The rock in working is dark green andeiste, mostly massive, but sheared in crushed zones. $\frac{\#5 \text{ adit}}{\text{ some disseminated pyrite in highly silicified}}$ greenstone (only traces of Au - Ag).

<u>#8 adit</u> is along a narrow shear for first 95' (shear at N30°W/ 65°NE). Walls are silicified andesite with disseminated pyrite and occasional quart_z lenses. Unmineralized andesite extends from here to the face. (After Stevenson, 1944).

SUMMARY OF WORK:

Various claims in the Regina Group were first Crown-granted in 1898 and 1899 to the Alberni Gold Development Syndicate. All the workings and cabins are very old, probably dating from late 1890's.

When <u>Stevenson</u> visited it in 1936, only recent work had been the cleaning of inclined shaft and possibly some digging in the adjacent open cut.

When we visited it in August, 1964, we saw only one main cut with a shaft dipping 45° South, which was full of water. Old syphon-hose was nearby, indicating work some time ago; some "hi-grade" was piled near the adit.

According to Stevenson there are at least 8 workings, but no production has been reported. He gives following data on the various workings (including assays on samples):

#1 is a short adit, driven N55°E for 15'.

From "Big Showing" (rusty outcrop) a large bulk-sample assayed: Au - 0.64 oz/ton; silver- trace.

#2 is a shaft at least 30' deep. A 25" sample assayed: Au - 0.02 oz/ton; Ag - 0.8 oz/ton; A grab of quartz from dump assayed: Au - 0.66 oz/ton; Ag - 14.0 oz/ton. Samples taken across a quartz lens assayed: Au - trace; Ag - 1.0 oz/ton.

11 E

- #3 is an adit, driven S20°E for 15'. Now largely caved in.
- $\frac{\#4}{\#5}$ is an adit, driven Nll°W for 94'. Only traces of Au Ag. $\frac{\#5}{\#5}$ is an adit, driven S45°E for 20' from a pit at the portal
 - 5' deep. Only traces of Au Ag.

#6 and #7 are caved cuts.

#8 is a long adit, driven S17°E for 33', S20°E for 64', and S47°E for 47' to the face. Total length 144'.

COMMENTS:

Vancouver Island Gold Mines property is less than 2 miles north of here. Three priority airborne magnetic anomalies are on the same NW trend as the showing; this trend seems to lie parallel to a geological contact. There are numerous other showings in the general area, a few miles SE.

It is almost certain that most of the China - Museum - Franklin Creek area has been quite well prospected at one time or another. But, by applying geochemical methods it is possible that some new information may be gained.

H. Laanela January, 1965.

11 E

HL:s

MINERAL OCCURRENCE #9

9 - 1

42F-172

"Grizzly Arsenic Showing"

GENERAL INFORMATION:

Location and Access:

About 6 miles SE of Port Alberni, 4,000' up McLaughlin Creek (a tributary of China Creek). The showing is on creek bottom, below a 200' high waterfall.

The easiest way to get there is to walk from the gate on China Creek road to the new dam and then cross China Creek on an aerial, tramway (located below the dam, and above the caretaker's house). Hence walk uphill; to the old railroad, grade toward McLaughlin Creek; then follow a well blazed trail to the showing.

Reports and References:

B.C. Minister of Mines:

- 1) Annual Report, 1924, p. 221
- 2) Annual Report, 1926, p. 298
- 3) Annual Report, 1927, p. 340

C.P.O.G. Report: The Mineral occurrences on E & N Land Grant, p. 108 by Matthews.

Gunnex reports:

1) Geol. Report #6, Aug, 1964, p. 5 by H. Laanela

2) Weekly Report, Aug. 24-30, 1964, p. 3 by T. F. Schorn.

Work done by Gunnex 1963/64:

The showing was visited by T. F. Schorn and H. Laanela in August, 1964, guided by Mr. Harry Brown. The showing was examined closely, some samples were taken and an adit was also entered. No other work has been done on the showing or in the area by our crews.

Standing:

According to claim map it is staked and in good standing. During visit last fall claim posts were seen, indicating that two claims, "Ivy - May" #1 and 2 had been staked by W.T.Horton on April 5, 1962.

GEOLOGY:

The area has not been mapped yet. Country rock near the showing seems to be <u>shale</u> and <u>argillite</u> (Nanaimo Group). According to both Hunting's and Muller's maps there seems to be an <u>intrusive contact</u> near or parallel to the creek (east side), and some <u>feldspar</u> porphyry sills intruding the overlaying Nanaimo sediments west and/or south of the showing.

PROPERTY FILE 92F172

The showing occurs in a belt of argillite at S60°W/vertical (almost) as a vein from several inches to two feet wide across the creek, consisting of shattered <u>carbonate stringers</u>. Attitude of vein is 75°/vertical. It contains heavy, metallic <u>nodules of native arsenic</u> up to several inches long and also smaller <u>stringers of arsenopyrite</u>; there is also some disseminated arsenopyrite. The gangue mineral is calcite. Pyrite and rust can be seen in the country rock.

The vein can be followed to the face of the 50'-60' tunnel on west bank, where it appears to be 1'-2' wide. According to 1927 report the vein shows a width of about 2' to a depth of 15' at least as seen in the shaft in creek. The total ore shoot exposed is about 30' long, the mineralization extending only a short distance into the tunnel.

Both Mr. Brown (our guide) and Mr. W.R.Selby of "Cominco" (who visited the showing in 1942 - see CPOG report by Matthews) report "kidneys" of As from 1' to 2' long and 1" to 4" wide, weighing in some cases over 200 lbs. Mr. Brown said that some prize specimens were shipped to a world fair in U.S. some years ago. According to Mr. Selby about 1,000 lbs. of arsenic specimens had been sold at \$1.00 per pound.

The vein follows a fracture zone 4'-5' wide. On east bank some trenching is done, but the zone seems to continue with As present, under heavy overburden.

SUMMARY OF WORK:

A fairly good trail has been cut and kept up to the showing; this trail has been used to back-pack the high-grade ore and specimens out.

The work consists of a drift tunnel some 50'-60' long on west bank and some rather recent looking open cutting on the opposite bank. In the middle of the stream bed there is a shaft, now filled with water, gravel and boulders, at least 20' deep (1927) and possibly up to 40' deep (Mr. Brown). All these workings follow the vein.

A sample taken in 1927, across 14" of mineralized calcite, just east of the collar of shaft, assayed:

gold and silver - trace; Arsenic 4.7%

Mr. W. R. Selby (1942 "Cominco") reports: "The showing has evidently been exposed for a length of 150' (trench, adit and shaft). This work has indicated the presence of about 150 tons of ore grading 90% As. To recover this material would involve the mining of some 4,500 tons of rock".

Mr. H. Brown reported (1964) that quite an amount of ore (specimens and high grade) had been packed out. There was evidence of some fairly recent work, apparently to recover the "kidneys".

PROPERTY FILE

92F172

Two samples taken by us, 1964, one over 2 feet of main vein, and the other over 9 inches of a high grade area of vein, assayed respectively:

9 - 3

21:	Au $- 0.01$ oz/ton;	Ag - trace; As -	5.97%
9":	Au - trace;	Ag - 0.5 oz/ton;	As - 22.72%

COMMENTS:

HL:s

It is a most interesting showing, but economically rather small. Some more work could be done, possibly in the shaft, and tunneling into the east bank. There is the problem of keeping the creek from flooding the shafts, especially during high water.

The creek is part of Port Alberni water-shed area on China Creek, which might place restrictions on the further work.

H. Laanela January, 1965.

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· See Maps in Proprile.

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Gunner Ltd EXN Land Grand 10 - 1

92F-83 THISTLE

EN. 150

MINERAL OCCURRENCE #10

(Hunting's Survey #7 and 6; Muller's #7)

"Thistle Mine"

GENERAL INFORMATION:

Location and Access:

The old Thistle Mine is some 11½ miles (straight line) SE of Port Alberni, at headwaters of Franklin River, about ½ mile SSW of Fatherand-Son Lake.

It can be reached by driving about 8 miles up Franklin River from Franklin River crossing of the Bamfield road. The site of old mine camp and portal are on the slope on north side of the valley. The original mine roads are grown over, but good logging roads reach the property now. Old camp is at 2,150' elevation and workings are between 2,460' and 2,750' elevations, on a very steep hillside of 50°-65°.

List of Reports and References:

B.C. Minister of Mines:

1)	Annual	Report,	1899,	pages 606,778.
2)	Annual	Report,	1901,	pages 1097, 1101.
3)	Annual	Report,	1902,	page 307.
4)	Annual	Report,	1927,	page 340.
5)	Annual	Report,	1928,	page 366.
6)	Annual	Report,	1930,	page 291.
7)	Annual	Report,	1938,	page A38.
8)	Annual	Report,	1939,	page A40.
9)	Annual	Report,	1940,	page A27, 73.
LO)	Annual	Report,	1941,	page A27,71.
11)	Annual	Report,	1942,	page A66.
12)	Annual	Report,	1944,	pages A154-G157 (also:A142-G161

summary on the China Creek area by J.S.Stevenson).

C.P.O.G. Report: The Mineral Resources of the E & N Land Grant, pages 69-72 (by Matthews)

Gunnex Reports: Weekly report on E & N Land Grant, Aug. 24-30, 1964 page 4, by T.F.Schorn.

Work done by Gunnex 1963/64:

The area was visited by T.F.Schorn and H.Laanela in August, 1964, guided by Harry "Cougar" Brown of Port Alberni. We only drove to the end of the logging road, from where the workings were pointed out to us. It was planned to return at some later date. The area has not been mapped, nor have the workings been looked at closely.

PROPERTY FILE

92F083

Silt sampling was done on streams in the area and near mine in the fall of 1964.

Standing:

According to Stevenson, 1944, the property consisted of 5 Crowngrants, lots 91G, 92G, 93G, 95G and 97G, staked between 1896 and 1899. At this time the claims were owned by United Prospectors, Limited, 604 Bank of Toronto Bldg., Victoria, B.C. These grants (leases) are still on present claim maps, apparently in good standing. Also shown on map of January, 1965 are six claims, "Son"#1-5 and 7, staked in 2 groups of 3 claims each at north and south ends of the grants, in good standing.

Some six claims had been staked west and north of Father-and-Son Lake, adjoining "Son" 1 and 2, but apparently these are lapsed now.

Similarly, there is a group of lapsed claims southward joining "Son" claims there with Black Panther and Black Lion properties. The present ownership is not known to the writer.

GEOLOGY:

General Geology:

The area was first mapped by Stevenson (map in 1944 report), and later, in 1962, by Jones of Hunting's Survey, who also did some field work in the area and visited the mine.

Stevenson has the area mapped as "older sediments" (Sicker group?) with "China Creek andesite", a group of older volcanics (apparently equivalent with Sicker volcanics) about ½ mile to the south.

Jones, who based his mapping on aeromagnetic interpretation, but also corrected some of Stevenson's mapping in the China Creek - Franklin River area, has mapped the mine area as Sicker volcanics, with a band of Sicker sediments to the NE curving around Father-and-Son Lake and a wider belt of Sicker sediments to the south. There is a contact with Vancouver volcanics to the east.

<u>Muller's</u> map, 1963, shows however, an opposite picture, with the mine in Vancouver volcanics and Sicker volcanics to the east, with a belt of Nanaimo sediments in-between.

Since it is hard to say who is right, not much can be said about the general geology at present.

Geology on workings:

The country rock, however, in the area appears to be mostly volcanic, in which are shear zones mineralized with pyrite and chalcopyrite.

According to <u>Stevenson</u> (1944) the Thistle deposit consists of <u>two chalcopyrite replacement ore bodies</u> found along two shear zones about 130' apart, in a 200' wide band of <u>altered limestone</u> with attitude N20°W/60°-75°SW.



The limestone is enclosed on 3 sides, NE, SE and SW, and in part underlain by fine-grained dorite. The limestone has been largely replaced by finegrained <u>diopside</u>, resulting in a dense, light-green rock that may be referred to as <u>diopside rock</u>. Although some small remnants of crystalline limestone, from a few inches to a few feet in maximum diameter, escaped replacement by the diopside many of them were later replaced by ore-minerals.

Strong faults are found along the ore-bodies and extend downward beyond the limits of known ore.

The ore consists mainly of chalcopyrite and some pyrite in a gangue of dirty grey calcite and a little quart_z. Very fine <u>magnetite</u> is dispersed through much of the calcite; some of the magnetite has been oxidized to hematite, giving a dull reddish colour to calcite which encloses it.

Jones, 1962, mentions chloritic volcanic rocks and bedded tuffs (Sicker volcanics) NW of showing, with outcrops of hornblende diorite in minor coarse phase of hornblende to the west of the property. Toward Father-and-Son Lake are lavas with scattered pyrite. Some volcanic agglomerate and limestone was also seen near mine.

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SUMMARY OF WORK: (After J.S.Stevenson, 1941-44)

Production:

The property has been idle since 1942. <u>Between 1938 and 1942</u> <u>6,867 tons of high-grade ore was shipped out, containing: 2,667 oz. of</u> gold; 1,667 oz. of silver and 626,556 lbs. of copper.

History:

The original staking of Thistle was done in 1896. By 1899 the "300" adit had been driven 90' and the "500" adit 65 feet. Access to property in 1901 was still by trail from Underwood Cove on Aberni Canal.

In 1901 a San Francisco Syndicate took over the property, did considerable development work and undertook to build a road from Alberni Canal to the mine, keeping some 200 men working for about two months. Due to weather, only half of the road was finished.

Very little mining was done from then until 1938, when property was acquired by United Prospectors Limited, of Victoria, who then finished the road and drove the adits to their present faces.

The ore was shipped between 1938 and 1942, by United Prospectors Limited, its lessees and Vancouver Island Diamond Drilling and Exploration Company, Limited, also of Victoria, an affiliated company. The latter company ceased operations at the Thistle in July, 1942, and since then the property has been idle.

It was visited by Stevension in 1941, who, in 1944 government report gives a summary on China Creek area geology and showings.

Workings:

A camp was built, now collapsed. An ore bunker was 1/2 mile beyond camp on road. Old roads are now overgrown and unusable; but good logging roads have built since, ending at the head of the valley, below mine.

The workings, extending north-easterly up the steep hillside from the ore bunker at the end of the road, include four adits: The "500" adit, elevation 2,525'; N69°E (collar); with several drifts. 1) The "300" adit, elevation 2,650'; N63°E, 90' to the face 2) The "300A" adit, elevation 2,650'; S76°E, 145' to the face. 3) The upper short adit, elevation 2,750'; southerly, 50' to the face. 4) The lower glory-hole, between "500" and "300" adits, elev.2,575' (+ 5') NE. 5) 6) The upper glory-hole, between "300" and upper adits, elev. 2,680'(+10'), NE. 7) The lower open-cut, at 2,710' elevation, NE for 30'. 8) The upper open-cut, at 2,780' elevation, NE for 6'.

The locations of workings are:

1) "500": 65' above road, NE from ore bunkers.

- 2) "300": 150' N55°E from "500" portal.
- 3) "300A": 25' S40°E from "300" portal.
- 4) upper adit: 100' S64°E from "300" portal.
- 5)
- lower glory-hole: 35'-85' SE from "500" portal. upper glory-hole: above "300" and "300A". NW end is 50' N30°E from "300", 6) and SE end is 80' S70°E from "300" portal.

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- 7) lower open-cut: 70'E from "500" portal; NW from glory-hole.
- upper open-cut: 40'N. 8)

Description and geology of workings (re-edited for easy reference):

The "500" adit: (1)

Driven N69°E for 45' as a crosscut, from the face of which a drift is driven N16°W for 57' and another drift S10°E for 52'.

Drifts follow a well defined fault, 2' at N face, narrows to 1" at S face. Fault is unmineralized, crushed wall-rock and gouge.

17' back from S face a short branch drift driven S45°E for 30' along a faulted block of sulphide-calcite ore that is bounded S by a fault at S55°E/80°NE, and N by a fault at S40°E/80°SW.

This block of ore is only about 25' long and 4' thick at maximum. It is cut off to NW by the fault along main drift and to SE by the junction of the two branch-drift faults.

The "300" adit: (2)

Driven N60°E for 30', thence N84°E for 60' to the face. 30' back from the face a short drift driven S for 30'.

No ore seen in this adit. It crosscuts slighly banded diopside rock and some limy bands of N20°W/60°W.

(3) The "300A" adit:

Driven S76°E for 30' as a <u>diagonal crosscut</u>; then S52°E for 115' to the face as a <u>drift</u>.

For 40' the drift follows the downward extension of <u>ore</u> which was mined in the lower glory-hole above; then it follows the NE side of a 2"-20" fault that cuts the ore body at 10° on S60°E/75°SW.

18" of heavy sulphide ore at the face, in the foot wall of the fault, narrows to 1", 12' back from the face.

Farther back, 3 lenses of 1"-3" unmineralized quartz found in the fault.

From the beginning of drift-section, but 6' above the drift, a branch-working driven SW for 15' thence SE for 13' along a fault (same one that is farther to the SE in main drift). Two 1" stringers of quartz along fault.

Adit is in <u>diopside-rock</u>, except for the branch-working in the hanging wall of the fault, where fine <u>diorite</u> is found (suggesting displacement of diorite against the SW extension of diopside-rock).

(4) The upper-most short adit:

Driven S for 50' along a lens of heavy sulphide ore, a few inches wide at the portal, but plunging down and widening to 8 feet near the face.

However, the face is cut-off by a cross-fault at S70°E/75°SW.

<u>Diópside-rock</u> and small remnants of crystalline <u>limestone</u> are found here.

(5) The lower glory-hole:

Above "500" adit. Measured 55' NE and 70' NW; deepest point is 20' below the downhill rim.

A short open-cut driven 6' into NE face of the hole, half way up.

The ore mined here apparently came from a <u>lens</u> at NW/SW, that, itself, did not extend to the main drift in "500" adit. (although the fault following the strike of ore extends to this drift).

A remnant of ore, $15' \times 3'$ and 10' down dip, may still be seen in the NW face of the glory-hole.

<u>Diopside-rock</u> forms both walls of ore. Part of 2" bed of crystalline <u>limestone</u> in the remnant of ore; several small "kidneys" in diopsiderock.

The <u>sulphides</u>, pyrite and chalcopyrite, <u>replace limestone</u> in preference to the diopside rock. (6) The upper glory-hole:

Above "300" and "300A" adits. 80' long NE. The floor, at deepest, is 10' below the downhill rim.

A flat piece of <u>ore</u> extends 60' SE from SE end of glory-hole in a <u>stope</u>, 18' by 25' broad.

Toward the entrance of stope, ore which bent downward was followed to the drift-section of the "300A" adit. A few small patches of ore remain in the face of the stope and in the NW end of the glory-hole.

<u>Diopside-rock</u> forms the country rock; some small limestone kidneys found in ore.

(7) The lower open-cut:

East of "500" adit. Driven NE for 30', exposing diopside rock with small "kidneys" of limestone. A fault at N10°E/35°E at the face. No ore is found here.

(8) The upper open-cut:

The highest of the workings. Driven for 6' across a poorly defined, rusty 6" to 3' wide shear zone at N20°.

A small amount of <u>chalcopyrite</u> and <u>pyrite</u> is scattered in the <u>diopside-rock</u> in the cut.

COMMENTS:

The "Thistle" mine was one of the few producers in the China Creek - Franklin River area. The reasons for the shut-down, aside from possible lack of ore, are not known.

It is located in an area of approximately 2½ miles by 2 miles, where several other old mines and showings are also located: Black Panther, Black Lion, Havilah, B and K, Golden Eagle and possibly some lesser showings, averaging a major showing per square mile or better. Some others are only a few more miles from it: Grizzly, Regina, Mary, Vancouver Island Gold Mines, and including numerous rusty zones and minor showings. For this reason it can be expected that this area has been well prospected, starting some 80-90 years ago, and probably sporadically looked over from time to time since then. One would assume that all the visible showings have been found already, although the discovery of our "Mary" showing (by Douglas, fall 1964) might disprove such assumption (see #16). Before we either accept or reject this "already-well-prospected-area" assumption, the following considerations should be taken into account:

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- a) The country here is as mountainous as anywhere on Island, making the prospecting difficult, both then and now.
- b) There probably has been no systematic organized prospecting over a wider area here, the work being carried out by small outfits and individuals operating on their own, with no correlation of results or information, much of which is apparently lost by now.



- c) The area has not been geologically mapped in any great detail; even Stevenson's work was done after all the mining activity was over. Most of the activity had died down by 1900, with few exceptions.
- d) Until present, where the logging companies opened the area by an extensive road system, most of the country was quite unaccessible. Now it is easily accessible by roads and by air.
- e) New prospecting techniques, based on geophysical and geochemical principles, can be used to great advantage to discover even "blind" ore deposits.
- f) Majority of these claims staked here during the original "rush" were later Crown-granted, a happening of which they never recovered, apparently. The owners were content to pay the small taxes on them rather than attempt any development work. Of un-Crown-granted claims there the majority have been held by restaking rather than by assessment work. This was already true in 1920's (see Gov't report 1927, pages C339-340), but probably also now. The Crown granting has sounded the "death knoll" of activities in many mining camps in B. C.
- g) The land, outside of Crown grants and leases, is held by CPR through E & N Land Grant, which includes the mineral rights and has tended to keep private mining interests away from the area.

In conclusion, it is felt that the "Thistle" property itself, as well as the immediate and general area, is probably one of the interesting pieces of ground in our area, and some close attention should be paid to it. Comments given here could be applied to some of the other properties in the China Creek - Franklin River area. We havejust begun to look at the possibilities in the area.

> H. Laanela January, 1965.

HL:s.

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(end of 1965 Season)

Reports and References:

Gunnex reports:

1) Geological Report #12, July-Aug., 1965, pages 3-h, by R.Laanela. 2) Geological Report #14, Sept-Oct, 1965, page 3, by H.Laanela.

"Pinancial Record", Vancouver, B.C., Nov. 22, 1965, page 3, article re Vananda Explorations.

Vananda Exploration: Final Report by F.J.Hessworth (P.Eng.), Jan, 1966 (on work done on "Thistle" Aug. -Dec., 1965).

Work done by Gunnex 1965:

The general area was mapped by H.Laanela in 1965; no detail work done (nee map of area, page 10). The workings were briefly visited while there last summer:

On claim L91G two "glory-holes" were seen one above the other. Below upper glory-hole 2 adits appear to be in good shape, although they were only entered 10-20 feet. Below lower glory-hole a caved in adit was seen.

Rocks seem to be Sicker Group volcanics, with some limestone (Sicker Group?) and skarn seem in lower glory-hole and denser sedimentary rocks in the upper one. Samples of high-grade, fine, massive copper ore were taken from the north wall of the upper hole, - chalcopyrite with some magnetite and pyrrhotite replacing the country rock.

At this time we talked to (and later visited their camp) two prospectors working for Vananda Exp. Ltd., who were camping on the road below showings; the one in charge was Hr. Doug Foster. They were in the process of setting up a drill-camp and loying out a grid on the property, which was used later for soil, mag and S.P. survey. A prospector, L.W.Jorgenson who owns the leases and had staked claims here, had optioned these to Vananda, who reportedly was planning to do complete geochemical-geophysical survey on the property. including 5,000 feet of diamond drilling. The idea of drilling was to intersect possible extensions of ore off-set.by faulting. Talk was of some \$50,000 to be apent on the job.

In Novembor, T.F.Schorn, Bill Framer and the writer revisited this property. The drill was still set up, but the camp was desorted. We took the liberty to look at all of their core-boxes at each of the 3 drill sites; we did not gas any ore, only minor pyrite in volcanics and some limy rocks. The diamond drill holes were about 400° or more long and had been drilled at more or less horizontal angles northerly into the hillside below the old workings, drills being set up on the old road below the main workings (glory-holes).

(This visit occured just 4 days before the article in "Financial Record"mentioned "encouraging results" obtained from drilling at "Thistle"). Nork done by Vananda, Aug - Dec., 1965:

The following is a summary from the final report by F.J. Hemsworth, conculting mining engineer, Jan., 1966:

Soil Sampling: One-quarter of property sampled on 50° x 200° grid (314 soil samples). Not sampled in the river valley - deep overburden. Field tested for ppm of Cu by Rubsanic Acid methods majority 0.4 ppm of Cu, - normal background. A few 10-20 ppm of Cu in immediate vicinity of old workings or downslope below them.

Hag Survey: Sharpe VP-5 ground voltamoter used. Eange of readings from plus (*) 33 (m V to minus (-) 117 m V (total 150 millivolts). "Highs" in old workings and several other locations. These anomalies were tested with diamond drilling and found to be concentrations of Fe-pyrite.

Diamond Drilling: Carried out by Magnussen Drilling and Exploration Limited; AXK ours at 55.00/ft. Drilled 4 holes: First 2 from road below old workings, primarly to test the geological structure. Last 2 drilled to investigate 5.P. anomalies. Holes were drilled an follows:

DDil #1	NGO*E	+10*	4501
DDH \$2	N60° S	-45*	475"
DDH #3	N80° 2	+1."	468*
DDI #4	NIO°Z	-15*	351.
		Total	2,744

(Log sheets of core indicate mostly volcanic rocks with some linestone, altered and silicified in places, quartz and calcite veinlets, epidote and diopaide rock. Bone pyrite, very minor Cu.)

<u>Conclusion</u>:"Although only a small section of the total area of the property was invoatigated, the exploration work covered the favourable diopside formation adjacent to where the ore had been mined. No new ore zones were found. It is recommended that no further work be done by huanda Exploration Limited, and that the option on the Thistle property be dropped".

Signed by:F.J. Hemsworth, P.Eng.

Appendix: Maps of various survey (copy included here).

Subsequently Hr. Jorgenson (early in 1966) enquired Gunnex Limited if we would be interested in "Thistle" property. We did not think of this property as being favourable to do further work on.

> H. Lasnela February, 1966.

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