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018990

RAE, KIND 3,4, ARC 30,31
104B 246

Claims

NEW

SUPERINTENDENT OF BROKERS

AND

VANCOUVER STOCK EXCHANGE

104B/8E

MINISTRY OF ENERGY, MINES
and PETROLEUM RESOURCES
Rec'd AUG 29 1990
SMITHERS, B.C.

STATEMENT OF MATERIAL FACTS #94/90
EFFECTIVE DATE: AUGUST 20, 1990

SANTA MARINA GOLD LTD.
(A Venture Company)
#1210 - 750 West Pender Street
Vancouver, British Columbia, V6C 2T8

Telephone: (604) 687-2038

NAME OF ISSUER, ADDRESS OF HEAD OFFICE AND TELEPHONE NUMBER

1750 - 750 West Pender Street
Vancouver, British Columbia V6C 2T8

ADDRESS OF REGISTERED AND RECORDS OFFICES OF ISSUER

Pacific Corporate Services Limited
830 - 625 Howe Street
Vancouver, British Columbia, V6C 3B8

NAME AND ADDRESS OF REGISTRAR & TRANSFER AGENT FOR ISSUER'S SECURITIES IN BRITISH COLUMBIA

The securities offered hereunder are speculative in nature. Information concerning the risks involved may be obtained by reference to this document. Further clarification, if required, may be sought from a broker.

OFFERING:

1,000,000 UNITS

Each Unit consists of one (1) Common Share and two (2) Series "A" Share Purchase Warrants, two (2) such Warrants entitling the holder thereof who exercises such warrants to purchase one (1) additional common share of the Issuer exercisable for a period of two years from the Offering Day at the Offering Price during the first year and at 15% above the Offering Price during the second year of the term of the Series "A" Warrants. See "Plan of Distribution" for further information.

Aug. 27/90

(749)

	Price to Public* (estimated)	Commission (estimated)	Net Proceeds to be received by the Issuer** (estimated)
Per Unit	\$0.40	\$0.03	\$0.37
Total	\$400,000	\$30,000	\$370,000

* To be determined by the Issuer and the Agents in accordance with the rules of the Vancouver Stock Exchange.

** Proceeds disclosed are before the deduction of the costs of the Offering expected not to exceed \$20,000.

ADDITIONAL OFFERING

The Agents have agreed to purchase from the Offering any Units which remain unsubscribed for at the conclusion of the Offering Day (the "Guarantee") and, in consideration of same the Agents will receive Agents' Warrants entitling them to purchase a total of 500,000 shares of the Issuer (See "Plan of Distribution").

Any Units acquired by the Agents under the Guarantee will be distributed under the Statement of Material Facts through the facilities of the Vancouver Stock Exchange at the market price at the time of the sale.

AGENTS

L.O.M. WESTERN SECURITIES LTD.
2200 - 609 Granville Street
Vancouver, British Columbia

Neither the Superintendent of Brokers nor the Vancouver Stock Exchange has in any way passed upon the merits of the securities offered hereunder and any representation to the contrary is an offence.

ADDENDUM TO THE
REPORT ON THE
RAE, KIND 3, KIND 4,
ARC 30 and ARC 31 CLAIMS
SULPHURETS AREA
SKEENA MINING DIVISION, BRITISH COLUMBIA

for

SANTA MARINA GOLD INC.
1210-750 West Pender Street
Vancouver, B.C.
V6C 2T8

NTS 104 - B / 8E

W. Longitude: 130⁰ 02' N. Latitude: 56⁰ 23'

BY

DENIS A. COLLINS, Ph.D., P.Geol., F.G.A.C. and
ROBERT R. ARNOLD, M.Sc, P.Geol., F.G.A.C.

SORBARA GEOLOGICAL CONSULTING LTD.
6703 Nicholson Road
Delta, B.C.
V4E 2T2

APRIL 11, 1990
REVISED JULY 23, 1990

SANTA MARINA GOLD LTD.

NOTES TO THE FINANCIAL STATEMENTS - CONTINUED

MARCH 31 ,1990

- 5 -

8. Subsequent Events - cont'd

a) cont'd

	<u>Interest</u>	<u>Cash</u>	<u>Stock</u>	<u>Work Commitment</u>
GOLD 1,2,3,4	50%	\$10,000	100,000	\$ -
LUCIFER 1,2,3,4	50%	10,000	100,000	-
DEVIL 1,2,3,4	50%	10,000	100,000	-
LANCE 4	50%	-	100,000	150,000
		<u>\$30,000</u>	<u>400,000</u>	<u>\$150,000</u>

Cash payments and the issuance of stock are to be made upon signing the letters of agreement. Amounts for work commitments are to be made over two separate phases, with each phase to be completed at the following dates:

\$ 50,000 - Phase I prior to November 30, 1990,
\$100,000 - Phase II prior to November 30, 1991.

- b) Subsequent to the year end, the Company acquired the right and option to earn a 100% interest, subject to a 10% net smelter return royalty, in the ARC 30 and 31 mineral claims located in the Skeena Mining Division of British Columbia from an affiliated company. Consideration for this acquisition was the issuance of 100,000 common shares of the capital stock of the Company.
- c) The Company is in the process of filing a statement of material facts by which the Company will offer to sell 1,000,000 common shares at a price of \$0.40 per share.

The most economic access to the subject property is by truck from Smithers for a distance of 275 kilometers to Bell II on Highway 37 at the Bell Irving Creek crossing. At the present time, a 205 Helicopter is stationed at Bell II and the claims can be reached by air.

PROPERTY AND OWNERSHIP

The properties consist of three (3) distinct groups of mineral claims totalling 94 units, under option to Santa Marina Gold Inc. from Teuton Resources Corp. The Kind 3 and 4 are contiguous claims and the Arc 30 and 31 are also contiguous claims. The Rae claim is a single 18 unit claim. During his inspection of the Rae and Arc 30 claims R. Arnold did not observe any claim posts. The claim records were inspected at the mining recorder's office and no section 35 complaints were indicated against any of the claims.

The properties are recorded at the British Columbia Ministry of Energy, Mines and Petroleum Resources as follows:

<u>CLAIM</u>	<u>UNITS</u>	<u>RECORD No.</u>	<u>EXPIRY DATE</u>	<u>REGISTERED OWNER</u>
Rae	18	5855	February 4, 1991	Teuton
Kind 3	18	5602	October 27, 1990	Teuton
Kind 4	18	5603	October 27, 1990	Teuton
Arc 30	20	7095	January 6, 1991	M. Mason
Arc 31	20	7096	January 6, 1991	M. Mason

TOTAL NUMBER OF UNITS: 94

The properties are shown on the Mineral Claim Map 104-B/8E and on Figure 2 of the present report.

PHYSIOGRAPHY

The Rae, Kind 3, Kind 4, Arc 30 and Arc 31 claims are situated in a mountainous, heavily glaciated terrain. Relief ranges from 500 meters above sea level along the northern boundary to approximately 1,750 meters in the district. In this region tree line is at approximately 1,200 meters ASL. Dense vegetation below this consists predominantly of spruce, fir and hemlock with an undergrowth of devil's club. Steep, erosional side creeks provide the best access and geologic control in the area.

The Kind 3 & 4 claims are largely covered by portions of the Knipple glacier. Exposure does occur on each claim as shown on Figure 4a. The Rae claim is situated on a steep southeast facing slope with elevations ranging from 500 to 1550 meters. The Arc 30 & 31 claims are situated on a moderately steep west facing slope with elevations ranging from 500 to 1500 meters. Snow cover is a limiting factor on the exploration field season. The period of least snow cover occurs between July and mid-September. The presence of glacial ice on the Kind 3 & 4 claims does not make development, of any significant mineral discovery, unfeasible. However, the drawback regarding the ice cover is that a mineral deposit that is now under ice would be more difficult to locate, in that it would rely on airborne geophysics without follow-up prospecting and geochemistry. The feasibility of diamond drilling would depend largely on local topography, as drilling through ice itself is not necessarily a problem. In July 1990, Cominco Ltd. commenced drilling through 800 feet of ice in the Forest Kerr area. The exact location of this drilling program is unknown at the time of writing. The depth to bedrock on the Santa Marina Gold Inc. properties is unknown.

The Arc 30 and Arc 31 claims lie approximately 25 kilometers southeast of the Brucejack Gold deposit. Geological Survey of Canada mapping indicates that the area of these claims is underlain by Upper Triassic to Lower Jurassic Betty Creek Formation strata which comprise a series of sedimentary and volcanics rocks.

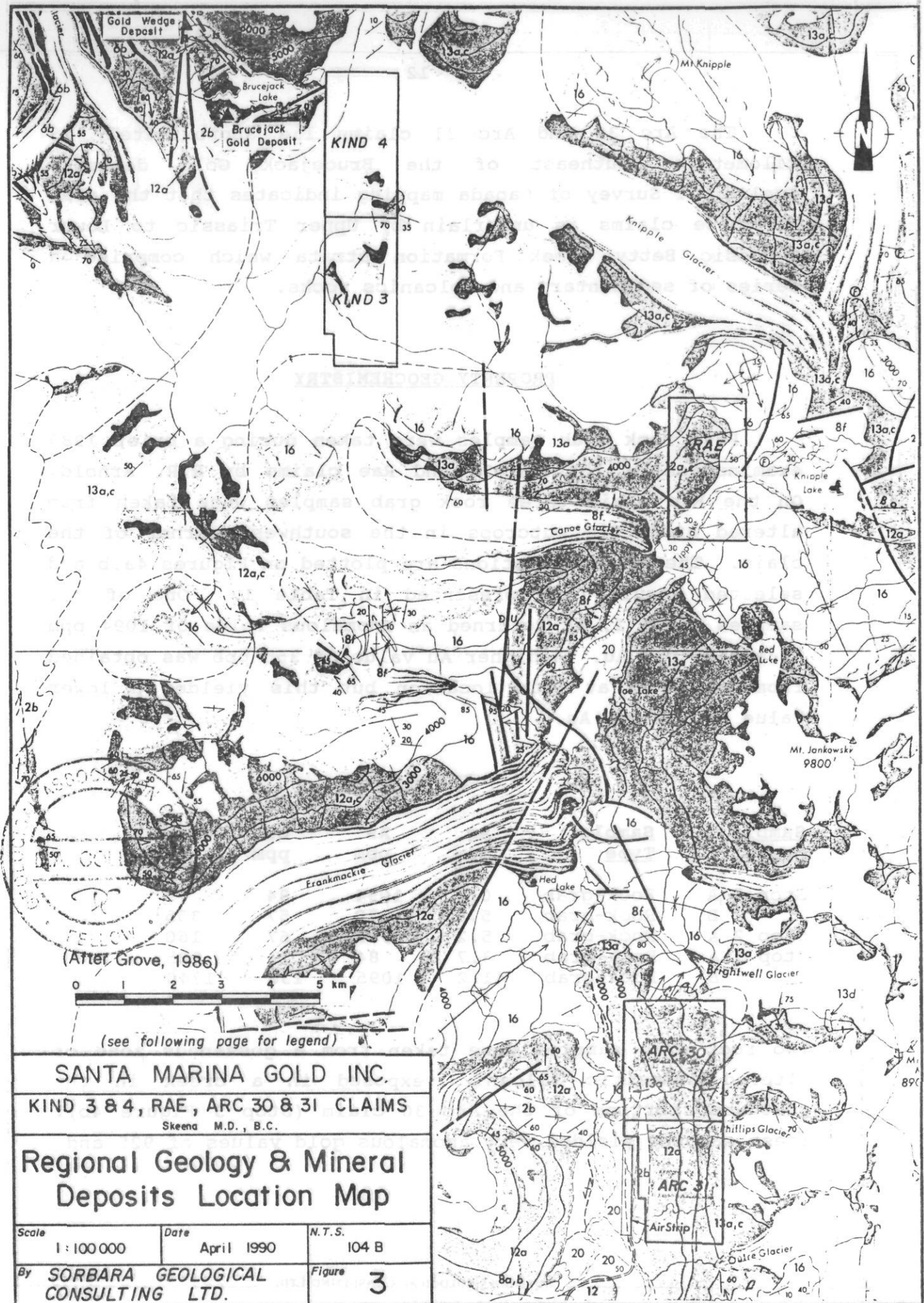
PROPERTY GEOCHEMISTRY

Five rock grab samples were taken during a brief 1989 examination of the Arc 30 and Rae claims by R.R. Arnold. On the Rae claim three rock grab samples were taken from altered andesitic outcrops in the southwest corner of the claim. The sample locations are plotted on Figures 4a,b and selected results are presented in Table 1. One of the samples (Stop 1, A) returned an anomalous value of 1094 ppm As and 75 ppb Au. A higher Au value of 355 ppb was obtained from sample B at this location but this yielded a lower value of 170 ppm As.

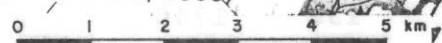
TABLE 1

<u>Sample Number</u>	<u>Sample Type</u>	<u>Ag ppm</u>	<u>As ppm</u>	<u>Cu ppm</u>	<u>Au ppb</u>
Stop 1 A	Rock-grab	0.7	1094	84	75
B	Rock-grab	5.6	170	57	355
Stop 2 A	Rock-grab	5.2	983	67	160
Stop 3 A	Rock-grab	3.7	84	11	925
B	Rock-grab	41.2	1095	138	1740

Two rock grab samples were taken from a gossanous zone of altered andesitic volcanics exposed in a creek in the southwest portion of the Arc 30 claim (Stop 3 Figure 4b). These samples yielded very anomalous gold values of 925 and



(After Grove, 1986)



(see following page for legend)

SANTA MARINA GOLD INC.

KIND 3 & 4, RAE, ARC 30 & 31 CLAIMS

Skeena M.D., B.C.

Regional Geology & Mineral Deposits Location Map

Scale 1:100 000	Date April 1990	N.T.S. 104 B
By SORBARA GEOLOGICAL CONSULTING LTD.		Figure 3

REFERENCES

- Alldrick, D.J. (1984)**
Geological Setting of the Precious Metal Deposits in the Stewart Area. BCDM Fieldwork 1983, Paper 1984-1, pp. 149-163.
- Britton, J.M. (1989)**
Geology and Mineral Deposits of the Unuk Area, British Columbia. GSC Open File Map 1989-10.
- East Gold Property, Minfile Number 104B-33.**
- Geological Survey of Canada (1957)**
Stikine River Area, Cassiar District, British Columbia, Map 9-1957.
- Geological Survey of Canada (1988)**
GSC Open File 1645; BCRGS # 18
- Grove, E.W. (1986)**
Geology and Mineral Deposits of the Unuk River-Salmon River-Anyox Area. Ministry of Energy, Mines and Petroleum Resources, Bulletin 63, 1988 Reprint, 152 pages.
- Kerr, F.A. (1930)**
Preliminary Report on the Iskut River Area, B.C. GSC Summary Report, 1929, Part A, pp. 30-61.
- Kerr, F.A. (1948)**
Lower Stikine and Western Iskut Rivers Area, B.C. GSC Memoir 246.
- Kirkham, R.V. (1963)**
The Geology and Mineral Deposits in the vicinity of the Mitchell and Sulphurets Glaciers, Northwest British Columbia. Unpublished M.Sc. Thesis, University of British Columbia.
- Kuran, V.M. (1985)**
Assessment Report on the Unuk River Property, Kay, Tok and GNC Claims, Skeena Mining Division, British Columbia. Unpublished Report for Stikine Silver Ltd. prepared by Kerrisdale Resources Ltd.
- Peatfield, G.R. (1975)**
Final Report 1975 Geology - Geophysics Programme, Eskay Creek Option. Unpublished Report for Texasgulf Inc.
- Shroeter, T.G. (1983)**
Bruce Jack Lake (Sulphurets Prospects), BCDM Fieldwork, P 1983-1; pp. 171-174.

STATEMENT OF QUALIFICATIONS

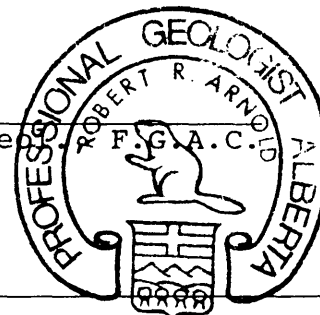
I, ROBERT R. ARNOLD, of 1227 Caledonia Avenue, in the District of North Vancouver, in the Province of British Columbia, hereby certify:

1. THAT I am a geologist residing at 1227 Caledonia Avenue, in the City of North Vancouver, in the Province of British Columbia.
2. THAT I obtained a Bachelor of Science degree in Geology from the University of Geneva, in the City of Geneva, Switzerland, in 1976 and a Master of Science degree in Geological Engineering, from the same university in 1978.
3. THAT I am a Registered Professional Geologist, in good standing, of the Association of Professional Engineers, Geologists and Geophysicists of Alberta since 1981.
4. THAT I am a Fellow Member of the Geological Association of Canada, in good standing since 1985. That I am an associate member of the Mineralogical Association of Canada and of the Society of Economic Geologists.
5. THAT I have been practising my profession as a geologist in Western Europe, West Africa, Southeast Asia and North America, both permanently since 1978 and seasonally since 1971.
6. THAT this report is based upon a thorough review of published and printed reports and maps on the subject property and the surrounding area. However, I have visited the Arc 30 and Rae claims reported on herein.
7. THAT I have not received, nor do I expect to receive any interests, direct or indirect, or contingent in the securities or properties of Santa Marina Gold Inc., Teuton Resources Corp. or Brasil Gold Resources Ltd. and that I am not an insider of any company having interest in the Mineral Claims which are the subject of this report, or any other claims within a radius of 10 kilometers.
8. THAT I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of a private or public financing.

SIGNED :


ROBERT R. ARNOLD, M.Sc., P. Geol.

July 23, 1990



STATEMENT OF QUALIFICATIONS

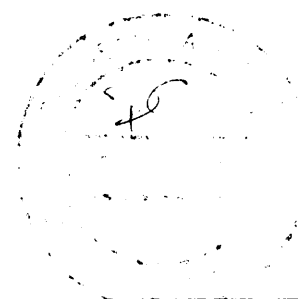
I, DENIS A. COLLINS, of the City of Vancouver, Province of British Columbia, hereby certify:

1. THAT I am a geologist residing at 1541 Kilmer Road, North Vancouver, British Columbia, Canada, V7K 1R5.
2. THAT I obtained a Bachelor of Science degree in Geology from University College Cork, Ireland in 1980 and a Ph.D. in Structural Geology from the same university in 1985.
3. THAT I have been practising my profession as a geologist in Ireland, South Africa and Canada since 1980.
4. THAT I am a Fellow, in good standing, with the Geological Association of Canada.
5. THAT I am a registered Professional Geologist, in good standing, with a license to practice with the Association of Professional Engineers, Geologists and Geophysicists of the North West Territories.
6. THAT this report is based upon a thorough review of published and printed reports and maps on the subject property and the surrounding area. I have not visited the property personally but I have directed exploration programs on properties in the Iskut River area.
7. THAT I have not received, nor do I expect to receive any interests, direct or indirect, or contingent in the securities or properties (Rae, Kind 3 & 4, Arc 30 & 31) of Santa Marina Gold Inc., Teuton Resources Corp. or Brasil Gold Resources Ltd. and that I am not an insider of any company having interest in the Mineral Claims which are the subject of this report, or any other claims within a radius of 10 kilometers of any of the three groups of claims.
8. THAT I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.

Dated in North Vancouver, British Columbia, this 23rd day of July, 1990.

Denis Collins

Denis A. Collins, Ph.D., P. Geol., F.G.A.C.



REPORT ON THE
RAE, KIND 3, KIND 4,
ARC 30 and ARC 31 CLAIMS
SULPHURETS AREA
SKEENA MINING DIVISION, BRITISH COLUMBIA

for

SANTA MARINA GOLD INC.
1210-750 West Pender Street
Vancouver, B.C.
V6C 2T8

NTS 104 - B / 8E

W. Longitude: $130^{\circ} 02'$ N. Latitude: $56^{\circ} 23'$

BY

DENIS A. COLLINS, Ph.D., P.Geol., F.G.A.C. and
ROBERT R. ARNOLD, M.Sc, P.Geol., F.G.A.C.

SORBARA GEOLOGICAL CONSULTING LTD.
6703 Nicholson Road
Delta, B.C.
V4E 2T2

APRIL 11, 1990

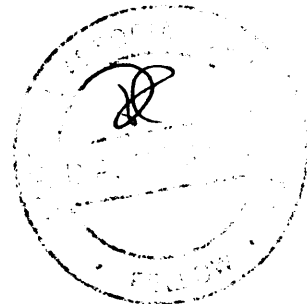


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- APPENDIX II: Statements of Qualifications
- APPENDIX III: Geochemical Results
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SUMMARY

The Santa Marina Gold Inc. properties consist of the contiguous Kind 3 and 4 claims, the Rae claim and the contiguous Arc 30 and 31 mineral claims, totalling 94 units. The claims lie approximately 90 kilometers northwest of Stewart, British Columbia, in the Sulphurets area. Access is via road to Bell II on Highway 37, at Bell Irving Creek crossing, a distance of approximately 275 kilometers northwest of Smithers, and from this point by helicopter for a distance of approximately 35 kilometers to the subject claims district. An alternate access is via fixed-wing aircraft to the Bronson Creek airstrip on the south side of the Iskut River and then by helicopter to the property. The Santa Marina Gold Inc. properties lie within a district of intense exploration activity. This district contains numerous significant mineral deposits which are currently being developed by surface and underground exploration.

In the Sulphurets area old records go back to 1898 when the Cumberland and Globe Groups were staked. Interest died down until the mid-1930's when extensive gossans zones were staked around the Brucejack Lake. The region was quiet again until the 1960's when extensive exploration for porphyry copper deposits followed up an helicopter borne magnetic survey conducted by Newmont Mines. In the period of 1975-1977, Texasgulf and Granduc Mines conducted exploration in the Sulphurets area. In 1979, Granduc optioned their claims to Esso Resources Canada who spent more than \$ 2 million over 5 years in exploration for precious metals. The Esso-optioned claims reverted back to Granduc and then were optioned jointly by Lacana Mining Corp. and Newhawk Gold Mines who drilled in 1985 over 13,000 feet in the Brucejack Lake area. This effort along with the 26,068 feet previously drilled has outlined mineral reserves of 1,011,543 tonnes grading 0.826 ounces gold equivalent per

tonne (silver:gold ratio = 50:1). This deposit is located approximately 5 kilometers northwest of the western boundary of the Kind 4 claim. In addition to these mineral reserves, the 1985 Lacana/Newhawk project located the new Snowfields Zones which is believed to have probable reserves of over 7,000,000 tonnes grading 0.083 oz Au/tonne (Sorbara, 1987). Catear Mines established a pilot test mill on their Gold Wedge Property, located 2 kilometers east of the Brucejack Lake Zone, and published reserves of this deposit are of 373,224 tons grading 0.753 oz Au/t and 1.07 oz Ag/t. The Gold Wedge Property has a geological potential of 1,000,000 tons grading 0.5 oz Au/t.

In the Unuk River area, the Eskay Creek property, located approximately 27 kilometers northwest of the Santa Marina Gold Inc.'s Kind 4 claim, was discovered in 1932 by Tom MacKay. Exploration since then has been principally directed to the location of high-grade precious metal mineralization. Exploration work included geological mapping, soil sampling, trenching, underground drifting, surface and underground diamond drilling. To date, the Calpine Resources Inc.-Consolidated Stikine Silver Ltd. Eskay Creek property has probable and possible geological reserves in the 21B zone of 1.5 million tons grading 1.43 oz. gold and 40.26 oz. silver per ton, plus 2.1% lead and 5.08% zinc (Northern Miner, April 9, 1990). Results from the ongoing stepout drilling program, beyond the reserves area, are extremely encouraging with drill intersections of hole 90-327 reported as 39.4 feet grading an average of 0.65 oz gold, 32.06 oz silver including a 13.1 foot section averaging 1.27 oz gold and 288.63 oz silver (Northern Miner, April 9, 1990).

The subject claims lie within the westernmost part of the Intermontane Tectonic Belt, close to the boundary of the Coastal Crystalline Tectonic Belt. The properties are

underlain by a suite of Upper Triassic rocks and Lower Jurassic Unuk River Formation strata, as well as siltstone, greywacke, argillite and minor limestone of the middle Jurassic Salmon River Formation. Mount Dilworth formation rocks are also shown on GSC maps to occur within the Kind 3 and Rae claims.

Five rock grab samples were collected from the Rae and Arc 30 claim area by one of the writers, R.R. Arnold, during early September of 1989. Results from this program yielded anomalous values of up to 1740 ppb gold and 41.2 ppm silver.

It is the opinion of the writers that an initial reconnaissance exploration program consisting of prospecting, geological mapping and geochemical sampling be undertaken on the claims. Details of the proposed follow-up work and estimated costs are included in the body of this report.

INTRODUCTION

This summary and evaluation of the Santa Marina Gold Inc. properties is done at the request of the directors of Santa Marina Gold Inc. The main purpose of the present report is to evaluate the precious metal and/or base metal potential of the subject properties and to propose an exploration program designed to test their potential.

This report is based on a review of public and private reports pertaining to the area, recent exploration activities on the properties, government geological and topographical maps and claim data from the mining recorder's office. One of the authors, R. R. Arnold, visited the Rae and Arc 30 claims during the 1989 field season.

A detailed examination of the subject properties itself was not conducted at the time of writing due to winter conditions and snow cover.

LOCATION AND ACCESS

The Rae, Kind 3, Kind 4, Arc 30 and Arc 31 claims are located within the eastern boundary of the Coast Range Mountains (Figure 1). The subject properties are situated approximately 100 air kilometers northwest of Stewart, British Columbia, 90 to 100 air kilometers east of Wrangell, Alaska and 25 air kilometers east from the Bronson Creek airstrip. The northern border of the Kind 4 claim is located approximately 27 kilometers southeast of the Calpine Resources-Stikine Resources Eskay Creek property. The subject claims lie within the Skeena Mining Division, on NTS Map 104-B/8E.

The most economic access to the subject property is by truck from Smithers for a distance of 275 kilometers to Bell II on Highway 37 at the Bell Irving Creek crossing. At the present time, a 205 Helicopter is stationed at Bell II and the claims can be reached by air.

PROPERTY AND OWNERSHIP

The properties consist of three (3) distinct groups of mineral claims totalling 94 units, under option to Santa Marina Gold Inc. from Teuton Resources Corp. The Kind 3 and 4 are contiguous claims and the Arc 30 and 31 are also contiguous claims. The Rae claim is a single 18 unit claim.

The properties are recorded at the British Columbia Ministry of Energy, Mines and Petroleum Resources as follows:

<u>CLAIM</u>	<u>UNITS</u>	<u>RECORD No.</u>	<u>EXPIRY DATE</u>
Rae	18	5855	February 4, 1991
Kind 3	18	5602	October 27, 1990
Kind 4	18	5603	October 27, 1990
Arc 30	20	7095	January 6, 1991
Arc 31	20	7096	January 6, 1991

TOTAL NUMBER OF UNITS: 94

The properties are shown on the Mineral Claim Map 104-B/8E and on Figure 2 of the present report.

PHYSIOGRAPHY

The Rae, Kind 3, Kind 4, Arc 30 and Arc 31 claims are situated in a mountainous, heavily glaciated terrain. Relief ranges from 600 meters above sea level along the

northern boundary to approximately 1,750 meters in the district.

Tree line is at approximately 1,200 meters ASL. Dense vegetation below this consists predominantly of spruce, fir and hemlock with an undergrowth of devil's club. Steep, erosional side creeks provide the best access and geologic control in the area.

Snow cover is a limiting factor on the exploration field season. The period of least snow cover occurs between July and mid-September.

HISTORY AND PREVIOUS WORK

Exploration for precious metals in the Sulphurets Creek area dates back to the late 1800's when placer gold was discovered in the upper reaches of the Unuk River. By 1898, several prospectors had entered the area and the first mineral claims, the Cumberland and Globe Groups, were staked by H.W. Ketchum and L. Brant. These claims proved to be attractive and by 1901, the Unuk River Mining and Dredging Company had purchased them and established a stamp mill on the Globe group. A road between Burroughs Bay and Sulphurets Creek was also begun by this company but was never completed.

Extensive gossans in the upper reaches of Sulphurets Creek attracted Bruce and Jack Johnson to stake claims in this area in 1935. Hence, the name "Brucejack Lake".

The region was quiet again until 1960 when search for porphyry copper deposits led Newmont Mines to conduct a helicopter borne magnetic survey in the Sulphurets area. Claims were staked on behalf of Granduc Mines Ltd. at the

Sulphurets Creek headwaters, and between 1961 and 1967, Granduc and Newmont conducted geological and geophysical work on this ground. More claims were acquired by Granduc and their exploration effort continued until 1970.

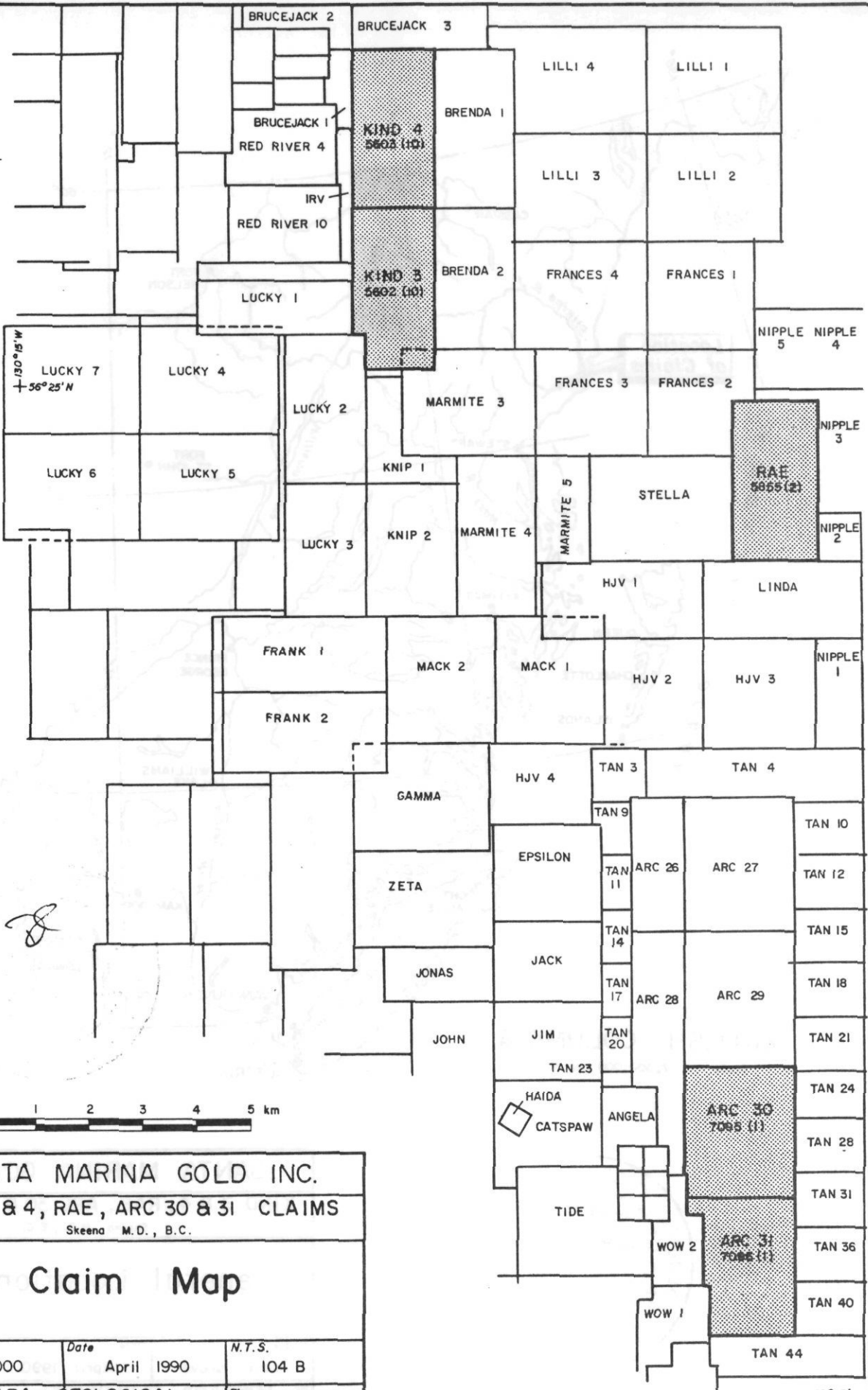
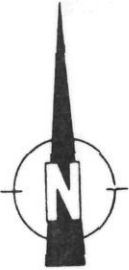
In 1965, Silver Standard Mines commenced work on the E & L prospect, a nickel-copper deposit on Nickel Mountain near the headwaters of Snippaker Creek. This prospect was later optioned by Sumito Metal Mining, and by the end of 1971, 1,500 feet of underground work had been completed in addition to intensive trenching, and surface and underground drilling programs.

The jump in precious metal prices renewed activity, and in the period of 1975 to 1977, Texasgulf Inc. and Granduc Mines both conducted exploration in the Sulphurets area. In 1979, Granduc optioned their claims to Esso Resources Canada Ltd. who spent more than \$2 million over 5 years in exploration for precious metals.

The Esso-optioned claims reverted back to Granduc and were subsequently optioned under joint venture to Lacana Mining Corporation and Newhawk Gold Mines Ltd.

In 1985, the Lacana/Newhawk joint venture drilled 13,066 feet in the Brucejack Lake area. This effort along with the 26,068 feet previously drilled has outlined mineral reserves of 1,011,543 tonnes grading 0.826 ounces gold equivalent per tonne (silver:gold ratio = 50:1).

In addition to these mineral reserves, the 1985 Lacana/Newhawk project located the new Snowfields Zone. Company reports state that limited drilling on this bulk tonnage target has indicated over 7,000,000 tonnes grading 0.083 oz Au/tonne (Sorbara, 1987).



SANTA MARINA GOLD INC.

KIND 3 & 4, RAE, ARC 30 & 31 CLAIMS

Skeena M.D., B.C.

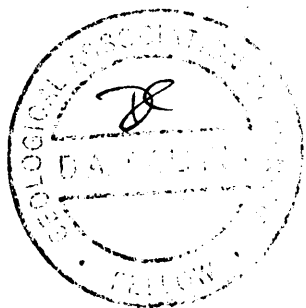
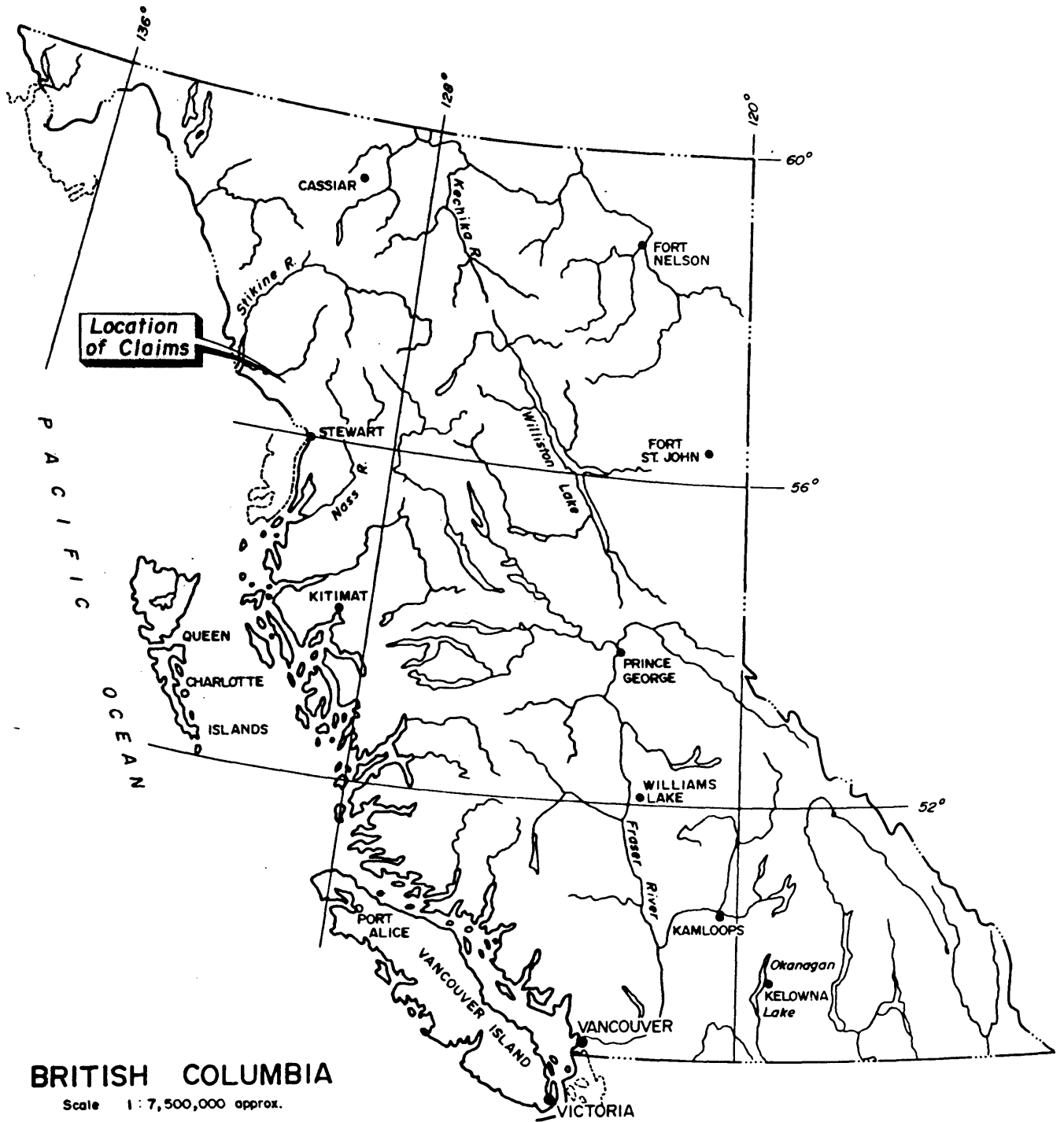
Claim Map

Scale 1 : 100 000	Date April 1990	N.T.S. 104 B
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By SORBARA GEOLOGICAL CONSULTING LTD.	Figure 2
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4 00 00' E

56° 15' N



SANTA MARINA GOLD INC.		
KIND 3 & 4, RAE, ARC 30 & 31 CLAIMS		
Skeena M.D., B.C.		
General Location Map		
Scale	Date	N.T.S.
noted above	April 1990	104 B
By	SORBARA GEOLOGICAL CONSULTING LTD.	Figure 1

During 1986, 1,500 feet of underground development drifting and crosscutting was completed on the West Zone in order to obtain a bulk sample. The results showed an average grade of 0.225 oz Au/ton over 52.5 feet without including several high-grade pockets. These results were very encouraging and a winter road to Brucejack Lake was started early in 1987. A permanent camp has been established and more drilling and underground work is conducted. The Lacana/Newhawk Brucejack property lies approximately 5 kilometers northwest of the western boundary of the Kind 4 claim.

Catear Mines established recently a pilot test mill on their Gold Wedge property, located 2 kilometers east of the Brucejack Zone. Published reserves are 373,224 tons grading 0.753 oz Au/t and 1.07 oz Ag/t and the geological potential is 1,000,000 tons grading 0.5 oz Au/t.

C.R. Harris (1985) summarizes the exploration's history of the Unuk River area, and more particularly of the Calpine Resources Inc.-Consolidated Stikine Silver Ltd.'s Eskay Creek property as follows:

" The property has a long history of exploration by various companies since discovery in 1932 by a party headed by Tom MacKay. The exploration has been principally directed to the location of high grade precious metal mineralization. Following is a brief summary of the work to date.

1934 Unuk Valley Gold Syndicate did some surface work on the #21 and #22 zones.

1935-38 Premier Mines drilled 10 diamond drill holes totaling 1,727' on the #21, #5 and #22 zones and added to the trenching.

1953 American Standard Mines did some surface work.

1963 Western Resources drove the Emma Crosscut and Drift for 360'.

- 1964 Canex Aerial Exploration drilled six underground diamond drill holes from the Emma Adit totaling 735'.
- 1965-72 Stikine Silver extended the Emma Drift 265' and added to trenching on the #22 zone.
- 1973 Kalco Valley Mines drilled seven diamond drill holes, totaling 983' on the north end of the #22 zone.
- 1975 Texasgulf performed geological, E.M. and magnetometer surveys.
- 1976 Texasgulf drilled seven diamond drill holes totaling 1,225 feet on the #5 and Emma Creek zones.
- 1979 May Ralph Industries high-graded trenches of the #22 zone and shipped 9.65 tons of picked ore to the Trail smelter.
- 1980-83 Ryan Exploration (U.S. Borax) performed soil and rock geochemical surveys and drilled three holes totaling 496m on the #22 zone.

Only two ore shipments have been recorded although several small test shipments are thought to have been made during the 1930's.

- 1971 Stikine Silver shipped 1.68 tons of picked ore, yielding: 0.3 oz gold, 239 oz silver, 64 lb lead, 94 lb zinc; assaying: 0.2 oz/t gold, 142.3 oz/t silver.
- 1979 May Ralph Industries shipped 9.65 tons of picked ore yielding: 40.62 oz gold, 819.54 oz silver, 907 lb lead, 2220 lb zinc; assaying: 4.208 oz/t gold, 84.90 oz/t silver."

In 1985, Kerrisdale Resources Ltd. carried out diamond drilling on the #21 and #22 zones, and in 1987 Consolidated Stikine Silver Ltd. conducted a soil sampling and trenching program on the Eskay Creek property.

During 1988 and 1989, the Eskay Creek property was extensively drilled by Calpine Resources Inc.-Consolidated Stikine Silver Ltd. and extremely promising results were reported from the #21 zone. On August 28, 1989, results

from hole 89-109 were reported in the Northern Miner as follows: "682 foot interval grading an average of 0.875 oz gold, 0.97 oz silver, 1.12% lead and 2.26% zinc. Within this interval is a 200.1 foot section averaging 2.877 oz gold, 0.85 oz silver, 1.86% lead and 3.44% zinc". Also reported in the Northern Miner (Sept. 4/89) is massive sulphide intersection located at the north end of the #21 Zone consisting of a 30 foot section and a 26 foot section of pyrite-galena-sphalerite-chalcopyrite massive sulphide mineralization. To date, the Calpine Resources Inc.-Consolidated Stikine Silver Ltd. Eskay Creek property has probable and possible geological reserves in the 21B zone 1.5 million tons grading 1.43 oz. gold and 40.26 oz. silver per ton, plus 2.1% lead and 5.08% zinc (Northern Miner, April 9, 1990).

Results from the ongoing stepout drilling program, beyond the reserves area, are extremely encouraging with drill intersections of hole 90-327 reported as 39.4 feet grading an average of 0.65 oz gold, 32.06 oz silver including a 13.1 foot section averaging 1.27 oz gold and 288.63 oz silver (Northern Miner, April 9, 1990). The Eskay Creek property is located approximately 27 kilometers northwest of the Santa Marina Gold Inc.'s Kind 4 claim.

REGIONAL GEOLOGY AND MINERALIZATION

The subject properties lie within the western most part of the Intermontane Tectonic Belt, close to its boundary with the Coastal Crystalline Tectonic Belt. As a result of the proximity of this area to a regional tectonic boundary, geologic relationships tend to be quite complex. The geology of this area (Figure 3) has been studied by Kerr (1930, 1948), and by Grove (1986), and is represented in Geological Survey of Canada Maps 9-1957, 1418A and 1505A.

LEGEND

INTRUSIVE ROCKS

- 6b Mid-Jurassic and younger Diorite
- 8a,b,f Eocene Stocks, a) quartz diorite b) granodiorite f) feldspar porphyry

METAMORPHIC ROCKS

- 2b Phyllite, semi-schist, schist

VOLCANIC AND SEDIMENTARY ROCKS

QUATERNARY

PLEISTOCENE TO RECENT

- 20 Unconsolidated deposits

MIDDLE JURASSIC (TOARCICAN TO BAJOCIAN)

- 16 Clastics and littoral deposits
- 13 Salmon River Formation - a) interbedded volcanic breccia and sandstone/siltstone c) siltstone

LOWER JURASSIC (PLIENSCHACHIAN TO TOARCICAN)

- 12 Unuk River Formation - pyroclastic-epiclastic sequence.

In the Sulphurets area, Shroeter (1983) examined the geology and mineralization in the Brucejack Lake area where hornblende syenites, alkali feldspar syenites and country rocks are cut by numerous north to northwesterly faults and are intensely altered with sericite, K-feldspar, silica, carbonate and chlorite. Five separate sulfide zones occur along a 7 kilometer belt with mineralization occurring in several styles, including low grade disseminations, epithermal stockworks and veins. Found within these zones are pyrite, chalcopyrite, molybdenite, ruby silver, stephanite, ceragyrite, electrum, native gold, tetrahedrite, freibergite, argentite, galena, sphalerite and bornite.

Within this area, two principal zones were identified. The Peninsula Zone (or Shore Zone) had been traced for 265 meters on surface and to a depth of 140 meters by intersections in 22 drill holes and was still open, when Shroeter visited the property in 1983. By the end of 1985, mineral reserves from this zone were reported to be 490,000 tonnes grading 0.890 oz Au-e/tonne (Au-e = gold equivalent with an Ag:Au ratio of 50:1).

The West Zone, located about 700 meters southwest of the Peninsula Zone, had been tested by 21 drill holes at the time of Shroeter's visit. It measured 310 meters on surface, extended to a depth of 60 meters and was also still open. Shroeter reported ruby silver, freibergite, electrum, native gold, stephanite, galena, pyrite and sphalerite occurring in a stockwork of quartz veinlets in sericitic andesitic tuff. Mineral reserves to the end of 1985 for the West Zone are 496,452 tonnes grading 0.694 oz Au-e/tonne.

During 1986, Newhawk put in 1,500 feet of development drifting and crosscutting to obtain a bulk sample from the West Zone. During November, 1986, one of the writer, J.P

Sorbara, had the opportunity to examine the underground workings and sample the mineralization. Two crosscuts have shown that the width and grade of the body is generally uniform with intermittent spectacular high grade sections. The first crosscut assayed 0.234 oz gold/ton and 6.2 oz silver/ton over a true width of 50 feet and 0.216 oz gold/ton with 14.25 oz silver/ton over a true width of 17 feet (Stockwatch, November 13, 1986). The second crosscut averaged 0.225 oz gold/ton and 16.60 oz silver/ton over a true width of 52.5 feet (Stockwatch, December 2, 1986). Grab samples reported from within this zone returned up to 5.786 oz gold/ton with 890.45 oz silver/ton, but these results were not included in the grade calculations of 0.225 oz gold/ton over 52.5 feet.

Drilling has implied this body is 1,000 feet long and extends at least 1,000 feet down dip. High grade pockets and veins within the mineralized zone are reported to run up to 3 or 4 ounces of gold and hundreds of ounces of silver. A grab sample collected by J.P. Sorbara (1986) from the lowest crosscut returned values of 2.348 oz gold/ton and 1061.67 oz silver/ton.

The Gossan Hill Zone had apparently not been found until after Shroeter's 1983 visit, but lies only 400 meters west of the Peninsula Zone. To the end of 1985, mineral reserves from this high grade area totalled 25,091 tonnes grading 2.209 oz Au-e/tonne over a true width of 10.5 feet.

Together, the 3 zones described above comprise the reported 1,011,543 tonnes of mineral reserves in the Brucejack Lake area, which have a weighted average of 0.826 oz Au-e/tonne. Two more zones, the Spine and Galena, lie just south of the Gossan and West Zones. Here galena, sphalerite, pyrite, chalcopryrite and native gold are reported in altered andesite.

Northwest of Brucejack Lake some 3.5 miles lies the Snowfield Gold Zone, which had not been discovered until 1985. Based on 625 feet of surface trenching and 5 drill holes, preliminary estimates by Newhawk Gold Mines Ltd. are that this bulk tonnage zone could host 7,000,000 tonnes grading 0.083 oz Au/tonne (Sorbara, 1987).

In the Unuk River Area, a geological cross section of the Calpine/Consolidated Stikine's Eskay Creek property was given to the writers by Mr. Jerry McArthur, geologist in charge of the project (personal communication, Sept. 1989). The hanging wall consists of interbedded breccias, pillow lavas and andesites up to 100 meters thick. The contact zone, a black argillite containing felsic fragments up to 2 inches across, is 10 to 15 meters thick with mineralization occurring at the base of the unit. In the north section of the contact #21 Zone, mineralization consists of electrum, aktashite (Cu-Pb-Zn-Ag-Hg sulphosalt) and honey coloured blebs of sphalerite rimmed with chlorite alteration. Free gold was observed in the core. Disseminations and needles of arsenopyrite predominate in the south section of the #21 contact zone with sections of massive stibnite, veinlets of stibnite and blebby realgar. Gold assays from this contact zone vary from .25 oz Au/t to several oz Au/t. Mineralized textures throughout the core vary from structurally controlled to layered syngenetic at as of to date no firm control has been agreed upon.

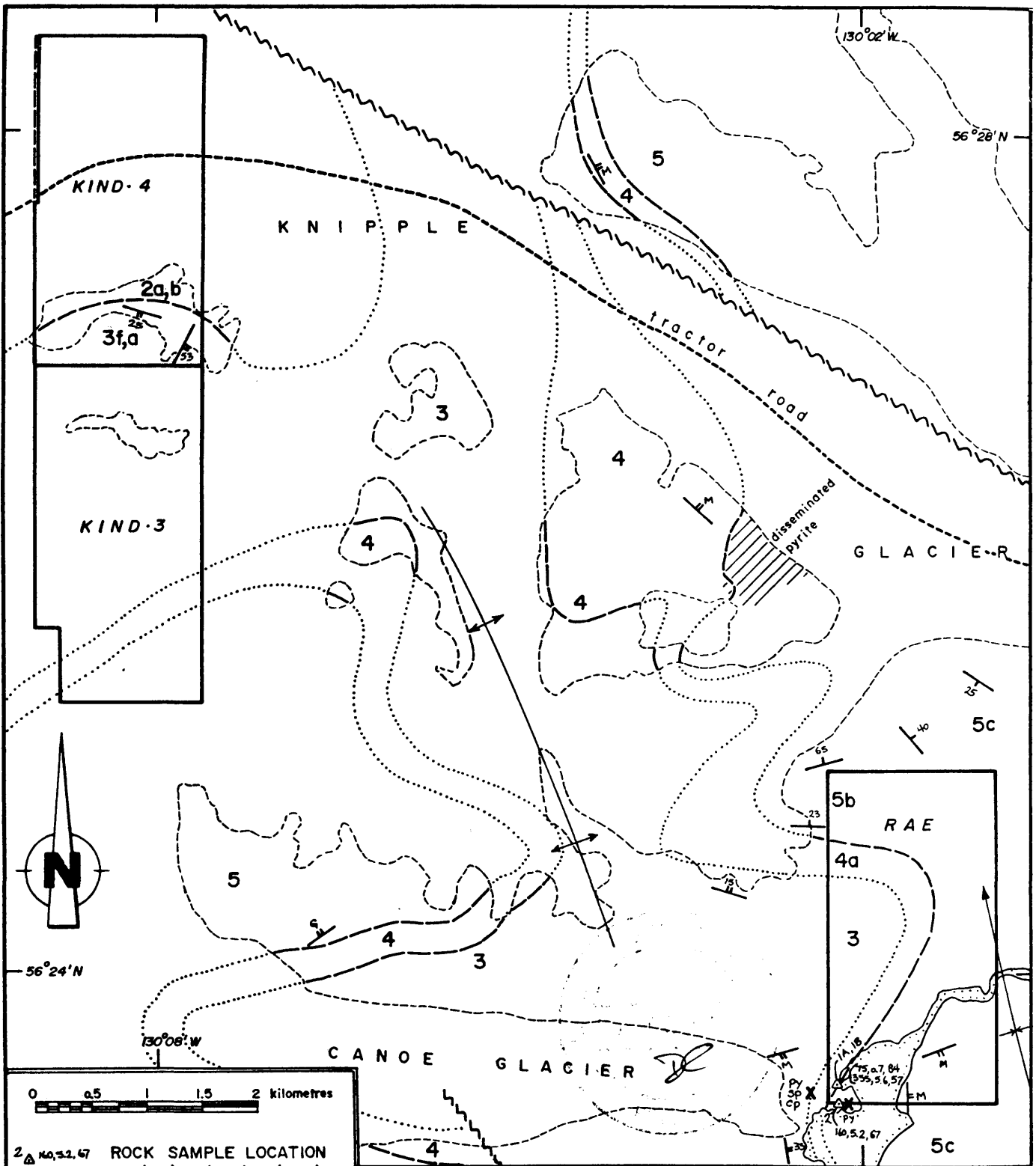
The footwall belongs to the Dillworth Formation and consists of a 100 to 150 meters thick rhyolite breccia lapilli tuff. Along strike to the north the lapilli fragments are finer. Alteration observed is silicification, strong K-spar and white mica. Gold assays from this section vary up to .25 oz Au/t. A 10 to 20 meters thick argillite layer separates the lapilli tuffs from a felsic lithic tuff

which varies from 60 to 100 meters thick. This latter unit, which may be the equivalent of the Betty Creek Formation, forms large gossans of pyritic material assaying from .15 to .25 oz Au/t. The bottom of the footwall is formed by thickly bedded siltstone containing pelecypods (dating in progress) and locally developed conglomerates. Drill intersections from 1990 infill drilling in the 21B deposit include hole 90-239 which intersected 29.5 feet grading 2.047 oz. gold and 72.37 oz. silver per ton and hole 90-291 which intersected 68.8 feet grading 1.315 oz. gold and 81.81 oz. silver per ton.

The South Zone has been outlined for 300 meters along strike and 200 meters down dip and reserves have been calculated at 6.49 million short tons at 0.535 oz Au/t and 14.13 oz Ag/t (Stockwatch April 11, 1990). This South Zone is to be mined by open pit methods. The Northern Miner reports (Sept. 4, 1989) that drill hole 89-126 intersected at the far north end of the #21 Zone a disseminated to massive sulphide mineralized section of 445 feet in width, of which a 30-ft and a 26-ft section consisted of pyrite-galena-sphalerite massive sulphide mineralization. This may indicate a volcanogenic massive sulphide lense off the #21 Zone.

PROPERTY GEOLOGY AND MINERALIZATION

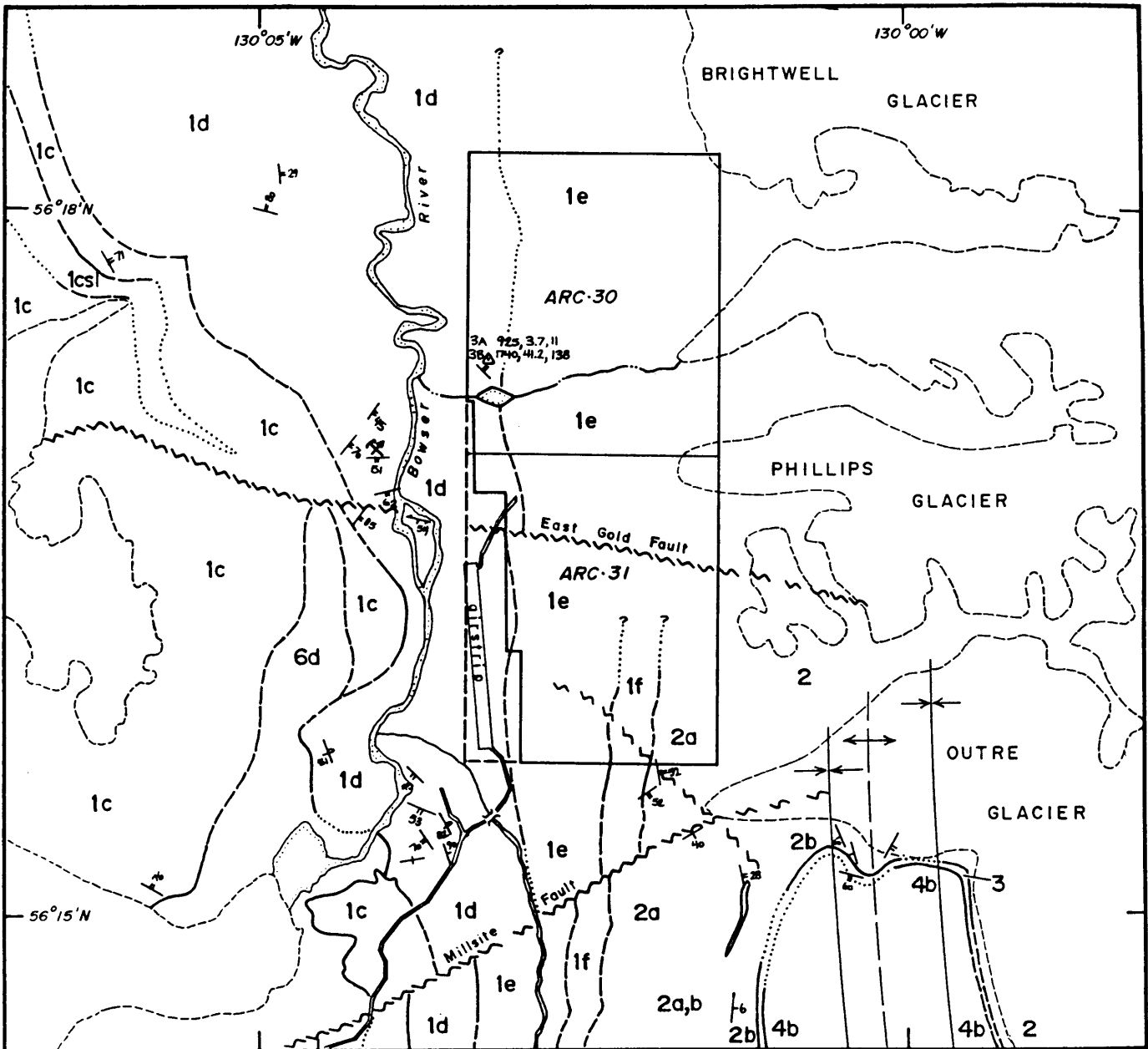
No detailed work has been conducted on the subject claims to date. Based on the Geological Survey of Canada mapping the Kind 3 and 4 claims and the Rae claim are underlain by Lower Jurassic Unuk River Formation strata, as well as siltstone, greywacke, argillite and minor limestone of the middle Jurassic Salmon River Formation (Figure 4). Mount Dilworth formation rocks are also shown to occur within the Kind 3 and Rae claims.



2 Δ 40, 52, 67 ROCK SAMPLE LOCATION
 Au (ppb), Ag (ppm) Cu (ppm)

- GEOLOGICAL BOUNDARY approximate, assumed
 - T₆₅ BEDDING, TOPS KNOWN Inclined
 - T₅₃ BEDDING, TOPS UNKNOWN Inclined
 - T₆ T_M BEDDING, ESTIMATED DIP Gentle, Moderate
 - ↑ ↓ FOLD AXIAL TRACE syncline, anticline
 - X_{py} MINERAL SHOWING
 - ~~~~~ FAULT assumed
- see following page for geological descriptions -

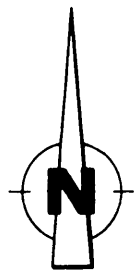
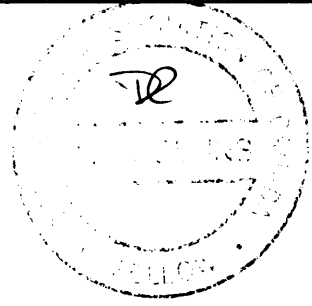
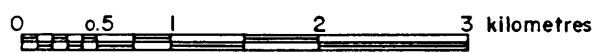
SANTA MARINA GOLD INC.		
KIND 3 & 4, RAE, ARC 30 & 31 CLAIMS		
Skeena M.D., B.C.		
Property Geology & Sample Location Map (NORTH HALF)		
Scale 1: 50,000	Date April 1990	N.T.S. 104 B
By SORBARA GEOLOGICAL CONSULTING LTD.		Figure 4a



- GEOLOGICAL BOUNDARY defined, approx., assumed
- BEDDING, TOP KNOWN inclined, vertical, overturned
- BEDDING, TOP UNKNOWN inclined, vertical
- FOLD AXIAL TRACE syncline, anticline
- FOLIATION inclined
- FAULT defined, approximate, assumed
- PAST MINERAL PRODUCER
- ROAD

3B Δ 1740, 41.2, 136 ROCK SAMPLE LOCATION
Au (ppb), Ag (ppm), Cu (ppm)

(see following page for geological descriptions)



SANTA MARINA GOLD INC.		
KIND 3 & 4, RAE, ARC 30 & 31 CLAIMS		
<small>Skeena M.D., B.C.</small>		
Property Geology & Sample Location Map		
(SOUTH HALF)		
<small>Scale</small> 1 : 50 000	<small>Date</small> April 1990	<small>N.T.S.</small> 104 B
<small>By</small> SORBARA GEOLOGICAL CONSULTING LTD.		<small>Figure</small> 4b

LEGEND

QUATERNARY

RECENT

7 UNCONSOLIDATED SEDIMENTS

- 7a Alluvium, glaciofluvial deposits, landslide debris, moraine
- 7b Alluvium underlain by Pleistocene to Recent basalt

PLEISTOCENE TO RECENT

6 BASALT FLOWS AND TEPHRA

- 6a Dark grey to black, basalt flows and tephra; minor pillow lavas
- 6b Basalt tephra

TRIASSIC TO JURASSIC

HAZELTON GROUP

MIDDLE JURASSIC (TOARCICAN TO BAJOCIAN)

5 SILTSTONE SEQUENCE (Salmon River Formation): Dark grey, well-bedded siltstone with minor sandstone and conglomerate.

- 5c Chert pebble conglomerate and arenite
- 5t Rhythmically bedded siltstone and shale (turbidite)
- 5w Thinly bedded wacks
- 5p Andesitic pillow lavas and pillow breccias with minor siltstone interbeds

LOWER JURASSIC (TOARCICAN)

4 FELSIC VOLCANIC SEQUENCE (Mount Dilworth Formation): Light weathering, intermediate to felsic pyroclastic rocks, including dust, ash, crystal and lithic tuffs, lapilli tuff. Locally pyritiferous (5 to 15%) and gossanous. Minor chalcidonic quartz veins locally.

- 4a Variably bedded airfall tuffs
- 4f Massive felsic tuff
- 4r Black and white, carbonaceous felsic volcanics; locally flow banded and autobrecciated

LOWER JURASSIC (PLEINSBACHIAN TO TOARCICAN)

3 PYROCLASTIC-EPICLASTIC SEQUENCE (Bety Creek Formation): Heterogeneous, grey, green, locally purple or maroon, massive to bedded pyroclastic and sedimentary rocks; pillow lava

- 3a Green and grey, massive to poorly bedded andesite
- 3d Grey, green and purple dacitic tuff, lapilli tuff, crystal and lithic tuff; massive to well bedded; feldspar phytic
- 3f White weathering, felsic tuffs and breccias with quartz stringers
- 3c Andesitic lapilli tuff with pink siliceous clasts
- 3p Andesitic pillow lavas and pillow breccias with minor siltstone interbeds
- 3t Black, thinly bedded siltstone, shale and argillite (turbidite)

UPPER TRIASSIC TO LOWER JURASSIC (NORIAN TO SINEMURIAN)

2 ANDESITE SEQUENCE (Unuk River Formation): Green and grey, intermediate to mafic volcanics and flows with locally thick interbeds of fine-grained immature sediments; minor conglomerate and limestone

- 2a Grey and green, plagioclase ± hornblende porphyritic andesite; massive to poorly bedded
- 2h Grey and green, hornblende-± pyroxene-feldspar porphyritic andesitic lapilli and ash tuff
- 2s Grey, brown and green, thinly bedded, tuffaceous siltstone and fine grained wacke
- 2t Black, thinly laminated siltstone (turbidite); shale; argillite
- 2g Dark grey, matrix-supported conglomerate with granitic cobbles
- 2l Grey, variably bedded limestone (completely recrystallized along South Unuk valley)

TRIASSIC

STUHINI GROUP

UPPER TRIASSIC (CARNIAN TO NORIAN)

1 LOWER VOLCANOSEDIMENTARY SEQUENCE: Brown, black and grey, mixed sedimentary rocks interbedded with medium to dark green, mafic to intermediate volcanic and volcanoclastic rocks

- 1t Grey to black, thinly bedded siltstone, shale, argillite (turbidite)
- 1w Brown and grey, fine grained tuffaceous wacke; minor siltstone or conglomerate
- 1l Grey, impure, silty, sandy limestone
- 1a Green, fine-grained, andesitic ash tuff; feldspar and hornblende phytic
- 1b Dark green basalt
- 1p Grey and green, andesitic breccia with augite-hornblende-plagioclase clasts and augite-rich matrix

(after Britton, 1989)

The Arc 30 and Arc 31 claims lie approximately 25 kilometers southeast of the Brucejack Gold deposit. Geological Survey of Canada mapping indicates that the area of these claims is underlain by Upper Triassic to Lower Jurassic Betty Creek Formation strata which comprise a series of sedimentary and volcanics rocks.

PROPERTY GEOCHEMISTRY

Five rock grab samples were taken during a brief 1989 examination of the Arc 30 and Rae claims by R.R. Arnold. On the Rae claim three rock grab samples were taken from altered andesitic outcrops in the southwest corner of the claim. The sample locations are plotted on Figure 4 and selected results are presented in Table 1. One of the samples (Stop 1, A) returned an anomalous value of 1094 ppm As and 75 ppb Au. A higher Au value of 355 ppb was obtained from sample B at this location but this yielded a lower value of 170 ppm As.

TABLE 1

<u>Sample Number</u>	<u>Sample Type</u>	<u>Ag ppm</u>	<u>As ppm</u>	<u>Cu ppm</u>	<u>Au ppb</u>
Stop 1 A	Rock-grab	0.7	1094	84	75
B	Rock-grab	5.6	170	57	355
Stop 2 A	Rock-grab	5.2	983	67	160
Stop 3 A	Rock-grab	3.7	84	11	925
B	Rock-grab	41.2	1095	138	1740

Two rock grab samples were taken from a gossanous zone of altered andesitic volcanics exposed in a creek in the southwest portion of the Arc 30 claim (Stop 3 Figure 4). These samples yielded very anomalous gold values of 925 and

1740 ppb. An anomalous silver value of 41.2 ppm was recorded from sample B from this zone.

CONCLUSIONS

The subject mineral claims are situated in the district which hosts the Newhawk showing and the recent Calpine discovery. The Stonehouse gold zone proven reserves to date are 876,000 tons grading 0.55 oz Au/t, with a cut-off grade of 0.3 oz gold. This deposit is presently in production and in June 1989 produced at a rate of 312 tons/day.

In the Sulphurets area, the Lacana/Newhawk Brucejack Lake deposits have proven reserves of 1,011,543 tonnes grading 0.826 ounces gold equivalent per tonne (silver:gold ratio = 50:1). Underground development is presently underway on this property. In addition the Lacana/Newhawk project located the new Snowfields Zones which estimated reserves are of over 7,000,000 tonnes grading 0.083 oz Au/tonne (Sorbara, 1987). Catear Mines established a pilot test mill on their Gold Wedge Property, located 2 kilometers east of the Brucejack Lake Zone, and published reserves of this deposit are of 373,224 tons grading 0.753 oz Au/t and 1.07 oz Ag/t. The Gold Wedge Property has a geological potential of 1,000,000 tons grading 0.5 oz Au/t.

The Eskay Creek's Calpine discovery has proven reserves of 2.8 million metric tonnes at 0.25 oz Au/t and 3.0 oz Ag/t in the South Zone, but no published reserves are yet available for the North Zone. Results from the ongoing drilling program are extremely encouraging with drill intersections of hole 89-109 reported in the Northern Miner (Aug. 28/89) as follows: "682 foot interval grading an average of 0.875 oz gold, 0.97 oz silver, 1.12% lead and 2.26% zinc. Within this interval is a 200.1 foot section

averaging 2.877 oz gold, 0.85 oz silver, 1.86% lead and 3.44% zinc".

The Kind 3 and 4, Rae, Arc 30 and 31 claims are underlain by a sequence of volcanic and sedimentary rocks of predominantly Jurassic age. Nearby properties exhibit similar suites of rocks, which host known gold showings and deposits in the region.

The writers conclude that the subject claims have the potential to host precious metal deposits similar to those recently found in the region. An exploration program designed to test this potential is recommended.

RECOMMENDATIONS

In order to evaluate the mineral and economic potential of the Santa Marina Gold Inc. properties, a two phase exploration program is recommended.

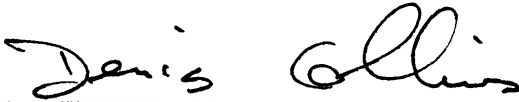
Phase I should be an initial reconnaissance exploration program of prospecting, geological mapping and geochemical sampling (rocks, soils and stream sediments) on all of the claims. Special attention should be paid to areas straddling the contact of any volcanic package with the coarse clastic sedimentary rocks, as this is the contact zone which hosts mineralized horizons in the area.

Dependant upon positive results from the Phase I exploration program and upon a review of the data, detailed mapping and possibly ground geophysics should be carried out to help delineate any significant structure, followed by an exploratory diamond drilling program to define the geometry and grade characteristics of any identified mineralization.

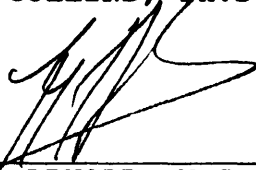
An estimated cost breakdown of this exploration program is given in Appendix I.

Respectfully submitted,

SORBARA GEOLOGICAL CONSULTING LTD.



DENIS A. COLLINS, Ph.D., P.Geol., F.G.A.C.



ROBERT R. ARNOLD, M.Sc., P.Geol., F.G.A.C.



April 11, 1990

REFERENCES

- Alldrick, D.J. (1984)**
Geological Setting of the Precious Metal Deposits in the Stewart Area. BCDM Fieldwork 1983, Paper 1984-1, pp. 149-163.
- Britton, J.M. (1989)**
Geology and Mineral Deposits of the Unuk Area, British Columbia. GSC Open File Map 1989-10.
- Geological Survey of Canada (1957)**
Stikine River Area, Cassiar District, British Columbia, Map 9-1957.
- Geological Survey of Canada (1988)**
GSC Open File 1645; BCRGS # 18
- Grove, E.W. (1986)**
Geology and Mineral Deposits of the Unuk River-Salmon River-Anyox Area. Ministry of Energy, Mines and Petroleum Resources, Bulletin 63, 1988 Reprint, 152 pages.
- Kerr, F.A. (1930)**
Preliminary Report on the Iskut River Area, B.C. GSC Summary Report, 1929, Part A, pp. 30-61.
- Kerr, F.A. (1948)**
Lower Stikine and Western Iskut Rivers Area, B.C. GSC Memoir 246.
- Kirkham, R.V. (1963)**
The Geology and Mineral Deposits in the vicinity of the Mitchell and Sulphurets Glaciers, Northwest British Columbia. Unpublished M.Sc. Thesis, University of British Columbia.
- Kuran, V.M. (1985)**
Assessment Report on the Unuk River Property, Kay, Tok and GNC Claims, Skeena Mining Division, British Columbia. Unpublished Report for Stikine Silver Ltd. prepared by Kerrisdale Resources Ltd.
- Peatfield, G.R. (1975)**
Final Report 1975 Geology - Geophysics Programme, Eskay Creek Option. Unpublished Report for Texasgulf Inc.
- Shroeter, T.G. (1983)**
Bruce Jack Lake (Sulphurets Prospects), BCDM Fieldwork, P 1983-1; pp. 171-174.

APPENDIX I

ESTIMATED COST OF PROPOSED PROGRAM

ESTIMATED COST OF PROPOSED PROGRAM

PHASE I:

Personnel:		
Project Geologist (8 days @ \$350.00/day)	\$	2,800.00
Domicile		
Camp Rental and Food		
8 man-days @ \$60.00/day	\$	480.00
Helicopter (12 hours @ \$660.00/hour)	\$	7,920.00
Geochemical Sampling and Shipping		
Assays (Au by F.A. & 6 elements by ICP)		
25 rock samples @ \$16.25/sample	\$	406.25
30 silt samples @ \$16.25/sample	\$	487.50
12 stream samples @ \$35.50/sample	\$	426.00
Mobilization/Demobilization	\$	1,500.00
Project Preparation	\$	700.00
Disposable Field Supplies	\$	100.00
Radio Rental	\$	150.00
Accounting Costs, Communications, Freight	\$	1,000.00
Report Compilation and Drafting	\$	2,000.00
Contingency	\$	2,000.00
		\$ 19,969.75
Total Phase I	\$	19,969.75
Say Total Phase I	\$	20,000.00

PHASE II:

The exact cost of Phase II is difficult to estimate at the present time because it will depend of how many targets are generated in Phase I. Diamond drilling if required and helicopter support would be the most costly components of this work.

APPENDIX II
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, DENIS A. COLLINS, of the City of Vancouver, Province of British Columbia, hereby certify:

1. THAT I am a geologist residing at 1541 Kilmer Road, North Vancouver, British Columbia, Canada, V7K 1R5.
2. THAT I obtained a Bachelor of Science degree in Geology from University College Cork, Ireland in 1980 and a Ph.D. in Structural Geology from the same university in 1985.
3. THAT I have been practising my profession as a geologist in Ireland, South Africa and Canada since 1980.
4. THAT I am a Fellow, in good standing, with the Geological Association of Canada.
5. THAT I am a registered Professional Geologist, in good standing, with a license to practice with the Association of Professional Engineers, Geologists and Geophysicists of the North West Territories.
6. THAT this report is based upon a thorough review of published and printed reports and maps on the subject property and the surrounding area. I have not visited the property personally but I have directed exploration programs on properties in the Iskut River area.
7. THAT I have no interest in the property described herein, nor in securities of any company associated with the property, nor do I expect to receive any such interest.
8. THAT I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of private or public financing.

Dated in North Vancouver, British Columbia, this 11th day of April, 1990.



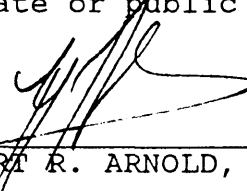
Denis A. Collins, Ph.D., P. Geol., F.G.A.C.

STATEMENT OF QUALIFICATIONS

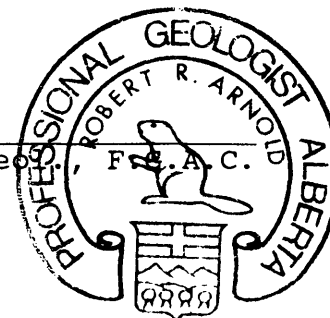
I, ROBERT R. ARNOLD, of 1227 Caledonia Avenue, in the District of North Vancouver, in the Province of British Columbia, hereby certify:

1. THAT I am a geologist residing at 1227 Caledonia Avenue, in the City of North Vancouver, in the Province of British Columbia.
2. THAT I obtained a Bachelor of Science degree in Geology from the University of Geneva, in the City of Geneva, Switzerland, in 1976 and a Master of Science degree in Geological Engineering, from the same university in 1978.
3. THAT I am a Registered Professional Geologist, in good standing, of the Association of Professional Engineers, Geologists and Geophysicists of Alberta since 1981.
4. THAT I am a Fellow Member of the Geological Association of Canada, in good standing since 1985. That I am an associate member of the Mineralogical Association of Canada and of the Society of Economic Geologists.
5. THAT I have been practising my profession as a geologist in Western Europe, West Africa, Southeast Asia and North America, both permanently since 1978 and seasonally since 1971.
6. THAT this report is based upon a thorough review of published and printed reports and maps on the subject property and the surrounding area. However, I have visited the Arc 30 and Rae claims reported on herein.
7. THAT I have not received, nor do I expect to receive any interests, direct or indirect, or contingent in the securities or properties of Santa Marina Gold Inc. and that I am not an insider of any company having interest in the Mineral Claims which are the subject of this report, or any other claims within a radius of 10 kilometers.
8. THAT I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of a private or public financing.

SIGNED :


ROBERT R. ARNOLD, M.Sc., P.Geol., F.R.A.C.

April 11, 1990



APPENDIX III
GEOCHEMICAL RESULTS

Sample Name	Type	Au ppb	Ag ppm	Al %	As ppm	Ba ppm	Bi ppm	Ca %	Cd ppm	Co ppm	Cr ppm	Cu ppm	Fe %	Hg ppm	K %	La ppm
Stop 1 , A	Rock	75	0.7	1.42	1094	75	<2	0.39	<0.1	12	83	84	3.18	<3	0.25	3
Stop 1 , B	Rock	355	5.6	0.33	170	42	3	0.03	0.3	7	126	57	2.39	<3	0.17	4
Stop 2 , A	Rock	160	5.2	0.63	983	15	<2	0.27	0.4	9	42	67	3.83	<3	0.28	<2
Stop 3 , A	Rock	925	3.7	0.27	84	70	<2	0.01	0.2	2	50	11	0.79	3	0.16	5
Stop 3 , B	Rock	1740	41.2	0.39	1095	<2	3	0.17	0.9	8	37	138	>5.00	<3	0.20	<2

Minimum Detection 5 0.1 0.01 5 2 2 0.01 0.1 1 1 1 0.01 3 0.01 2
 Maximum Detection 10000 100.0 5.00 10000 10000 10000 10.00 10000.0 10000 10000 20000 5.00 10000 10.00 10000
 Method FA/AAS ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP ICP
 -- = Not Analysed unr = Not Requested ins = Insufficient Sample

APPENDIX IV
ROCK SAMPLE DESCRIPTIONS

ROCK SAMPLE DESCRIPTIONS

<u>Sample Number</u>	<u>Sample Type</u>	<u>Description</u>
Stop 1 A	Rock-grab	Altered andesitic volcanic
B	Rock-grab	"
Stop 2 A	Rock-grab	"
Stop 3 A	Rock-grab	Highly altered volcanic
B	Rock-grab	"

REPORT ON THE ARC 18, 19, 20, 21
CLAIMS, LIARD MINING DIVISION
BRITISH COLUMBIA

FOR

SANTA MARINA GOLD INC.
1210 - 750 West Pender Street
Vancouver, B.C.

NTS 104B\10 E

BY

J. Paul Sorbara, M.Sc., F.G.A.C.
SORBARA GEOLOGICAL CONSULTING LTD.
6703 Nicholson Rd.
Delta, B.C.
V4E 2T2

April 3, 1990

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SUMMARY

The ARC 18, 19, 20 and 21 claims lie 16 kilometres west-southwest of Calpine Resources new Eskay Creek discovery in the Unuk River area of British Columbia.

Very little work has been conducted on the property but regional mapping indicates it is underlain by favourable volcanic rocks of the Betty Creek Formation along with porphyritic intrusions.

During the initial examination of the property, several gossans were observed within the volcanic suite. Two silt samples taken at the time from drainages within the property were found to be anomalous in gold.

The writer concludes that the subject property has the potential to host significant precious metal mineralization and recommends a preliminary program of mapping and sampling to test this potential.

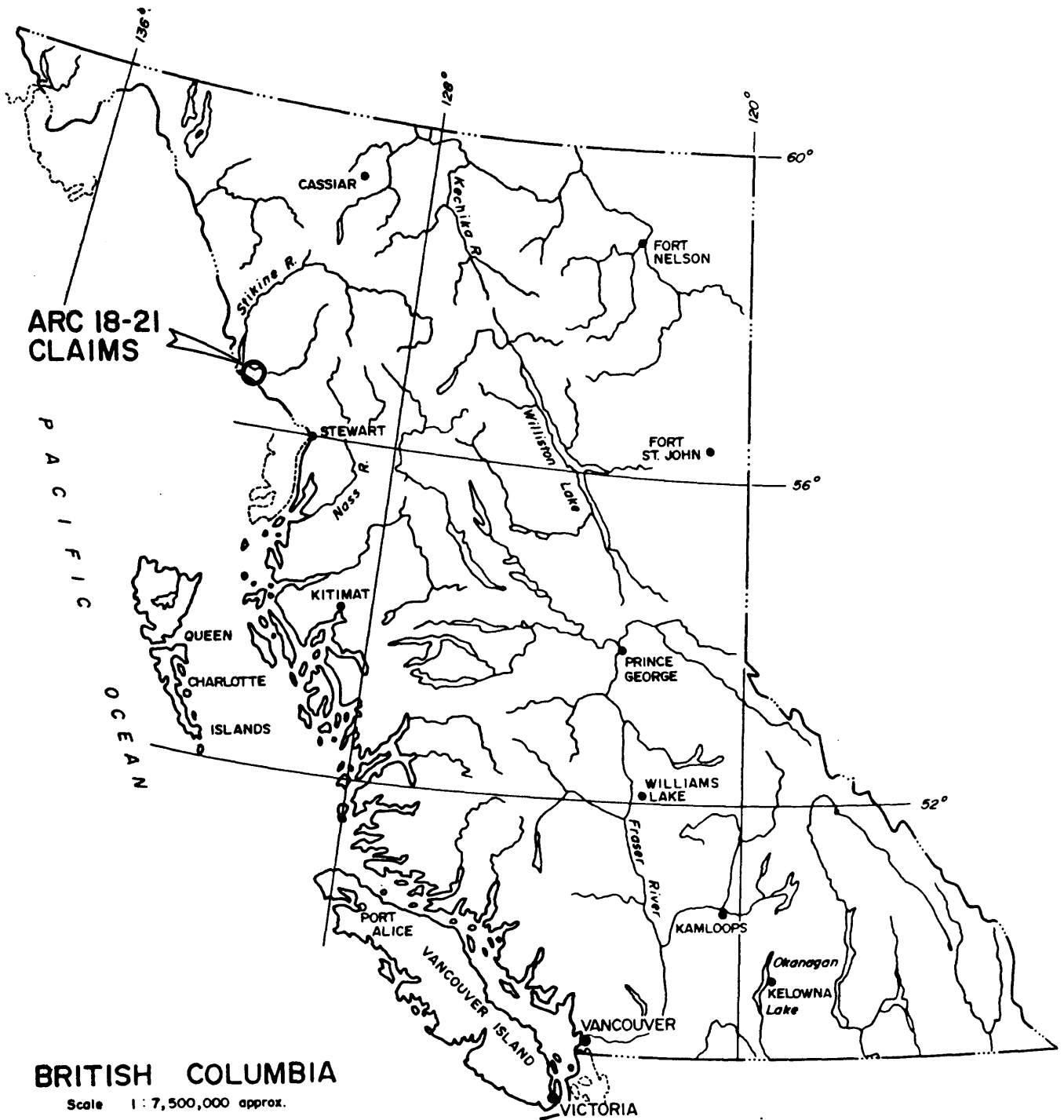
INTRODUCTION

This report is written at the request of the directors of Santa Marina Gold Inc. The main purpose is to evaluate the potential of the subject property for hosting precious metal and base metal mineralization and, if wanted, to recommend an exploration program designed to test that potential.

The report is based upon a thorough review of reports pertaining to the area as well as the writer's personal examinations of several of the important mineral deposits and properties in the area. The writer and geologist V. Kuran inspected and collected samples from subject property during September, 1989.

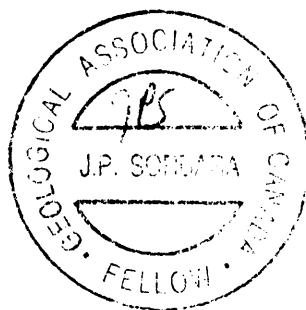
PROPERTY AND OWNERSHIP

The subject property comprises 4 located mineral claims totalling 72 units situated in the Liard (and partly within the Skeena) Mining Division. Due to some overstaking the total area actually controlled by Santa Marina Gold Inc. is somewhat less than 72 units. Figure 2 shows the exact claim holdings. During their inspection of the subject property, the writer and V. Kuran did not observe any claim posts. The claim records were inspected at the mining recorders office and no section 35 complaints were indicated against the Arc 18 to 31 claims.



BRITISH COLUMBIA

Scale 1 : 7,500,000 approx.



SANTA MARINA GOLD INC.		
ARC 18-21 CLAIMS Skeena and Liard M.D.'s, BC.		
General Location Map		
Scale noted above	Date April 1990	N.T.S. 104 B / 10
By SORBARA GEOLOGICAL CONSULTING LTD.		Figure 1

The subject property is currently under 50% option to Santa Marina Gold Inc. from the registered owner, Matt Mason. A list of the pertinent claim data is given below:

<u>Claim Name</u>	<u>Record Number</u>	<u>Current Expiry Date</u>
ARC 18	5620	Jan. 6, 1991
ARC 19	5621	Jan. 6, 1991
ARC 20	5622	Jan. 6, 1991
ARC 21	5623	Jan. 6, 1991

LOCATION, ACCESS AND TOPOGRAPHY

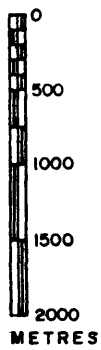
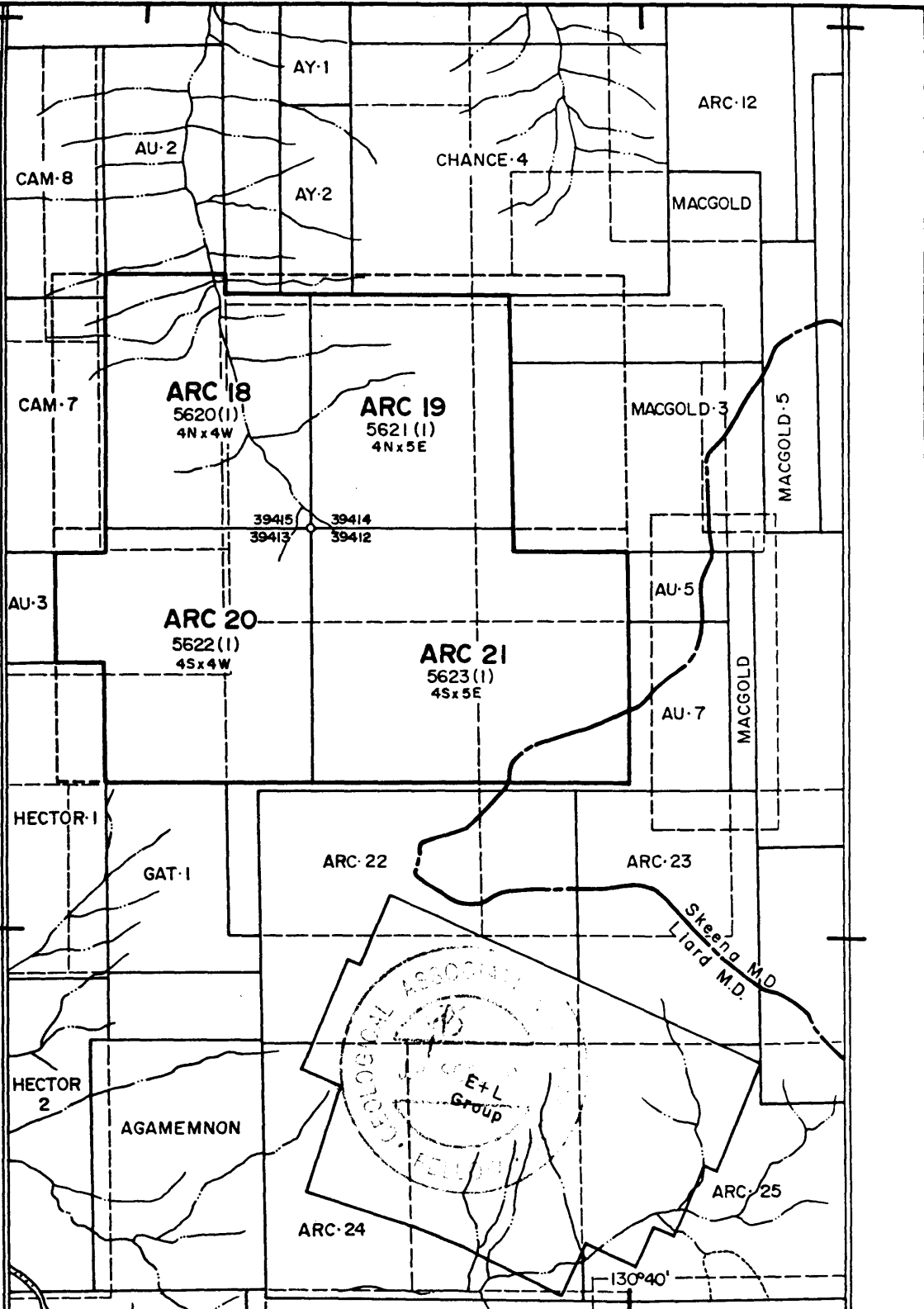
The subject property is located approximately 85 kilometres northwest of Stewart B.C. and is centered on NTS mapsheet 104 B\10 at 56 37' north and 130 42' west. This location lies about 16 kilometres west-southwest of the new Calpine Resources precious and base metal discovery at Eskay Creek.

The most economic access to the subject property is by truck from Smithers for a distance of 275 kilometers to Bell II on Highway 37 at the Bell Irving Creek crossing. At the present time, a 205 Helicopter is stationed at Bell II and the claims can be reached by air.

The subject claim group is situated at the headwater of an unnamed creek that flows north into the Iskut River. The property is in mountainous terrain with elevations ranging from 2100 feet along the northern edge to just over 6500 feet in the Southeast corner, which is partially ice-covered. The lower reaches of the northern portion of the property is tree-covered while the rest is alpine.



56°39'



SANTA MARINA GOLD INC.		
ARC 18-21 CLAIMS Skeena and Liard M.D.'s, B.C.		
Claim Map		
Scale 1: 50,000	Date April 1990	N.T.S. 104 B/10
By SORBARA GEOLOGICAL CONSULTING LTD.		Figure 2

56°35'

130°40'

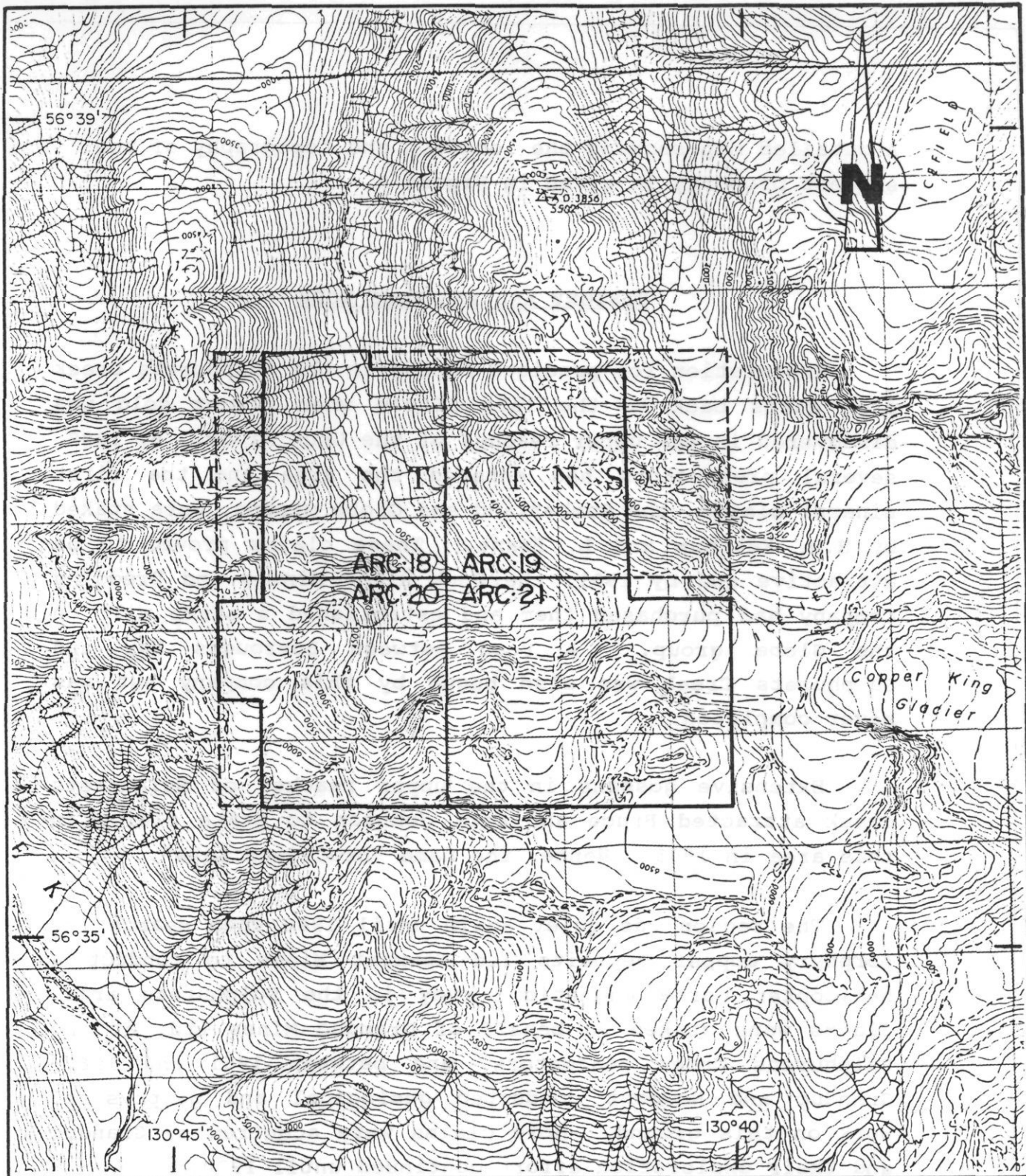
PARIS-4

PARIS-1

PARIS-3

PARIS-2

Julian Lake



0 0.5 1 2 3 Kilometres

SANTA MARINA GOLD INC.

ARC 18-21 CLAIMS

Skeena and Liard M.D.'s, B.C.

Topographic Map

Scale	Date	N.T.S.
1:50,000	April 1990	104 B/10
By	SORBARA GEOLOGICAL CONSULTING LTD.	Figure
		3

A detailed map showing the location and topography of the subject property is given in Figure 3.

HISTORY AND PREVIOUS WORK

Exploration for precious metals in the Sulphurets Creek area dates back to the late 1800's when placer gold was discovered in the upper reaches of the Unuk River. By 1898, several prospectors had entered the area and the first mineral claims, the Cumberland and Globe Groups, were staked by H.W. Ketchum and L. Brant. These claims proved to be attractive and by 1901, the Unuk River Mining and Dredging Company had purchased them and established a stamp mill on the Globe group. A road between Burroughs Bay and Sulphurets Creek was also begun by this company but was never completed.

Extensive gossans in the upper reaches of Sulphurets Creek attracted Bruce and Jack Johnson to stake claims in this area in 1935. Hence, the name "Brucejack Lake".

The region was quiet again until 1960 when search for porphyry copper deposits led Newmont Mines to conduct a helicopter borne magnetic survey in the Sulphurets area. Claims were staked on behalf of Granduc Mines Ltd. at the Sulphurets Creek headwaters, and between 1961 and 1967, Granduc and Newmont conducted geological and geophysical work on this ground. More claims were acquired by Granduc and their exploration effort continued until 1970.

In 1965, Silver Standard Mines commenced work on the E & L prospect, a nickel-copper deposit on Nickel Mountain, just south of the subject property, near the headwaters of Snippaker Creek. This prospect was later optioned by Sumito

Metal Mining, and by the end of 1971, 1,500 feet of underground work had been completed in addition to intensive trenching, and surface and underground drilling programs. Current reserves on this presently dormant property are reported to be 3.2 million tons grading 0.8% Ni and 0.6% Lu.

The jump in precious metal prices renewed activity, and in the period of 1975 to 1977, Texasgulf Inc. and Granduc Mines both conducted exploration in the Sulphurets area. In 1979, Granduc optioned their claims to Esso Resources Canada Ltd. who spent more than \$2 million over 5 years in exploration for precious metals.

The Esso-optioned claims reverted back to Granduc and were subsequently optioned under joint venture to Lacana Mining Corporation and Newhawk Gold Mines Ltd.

In 1985, the Lacana/Newhawk joint venture drilled 13,066 feet in the Brucejack Lake area. This effort along with the 26,068 feet previously drilled has outlined mineral reserves of 1,011,543 tonnes grading 0.826 ounces gold equivalent per tonne (silver:gold ratio = 50:1).

In addition to these mineral reserves, the 1985 Lacana/Newhawk project located the new Snowfields Zone. Company reports state that limited drilling on this bulk tonnage target has indicated over 7,000,000 tonnes grading 0.083 oz Au/tonne (Sorbara, 1987).

During 1986, 1,500 feet of underground development drifting and crosscutting was completed on the West Zone in order to obtain a bulk sample. The results showed an average grade of 0.225 oz Au/ton over 52.5 feet without including several high-grade pockets. These results were very encouraging and a winter road to Brucejack Lake was started early in 1987. A permanent camp has been

established and more drilling and underground work is conducted. The Lacana/Newhawk Brucejack property lies approximately 35 kilometers east-southwest of the ARC 18, 19, 20 and 21 claims. Current reserves at Brucejack Lake are 715,400 tons grading 0.431 oz Au/ton and 19.7 oz Ag/ton.

Catear Mines established recently a pilot test mill on their Gold Wedge property, located 2 kilometers east of the Brucejack Zone. Published reserves are 373,224 tons grading 0.753 oz Au/t and 1.07 oz Ag/t and the geological potential is 1,000,000 tons grading 0.5 oz Au/t.

C.R. Harris (1985) summarizes the exploration's history of the Unuk River area, and more particularly of the Calpine Resources Inc.-Consolidated Stikine Silver Ltd.'s Eskay Creek property as follows:

" The property has a long history of exploration by various companies since discovery in 1932 by a party headed by Tom MacKay. The exploration has been principally directed to the location of high grade precious metal mineralization. Following is a brief summary of the work to date.

1934 Unuk Valley Gold Syndicate did some surface work on the #21 and #22 zones.

1935-38 Premier Mines drilled 10 diamond drill holes totaling 1,727' on the #21, #5 and #22 zones and added to the trenching.

1953 American Standard Mines did some surface work.

1963 Western Resources drove the Emma Crosscut and Drift for 360'.

1964 Canex Aerial Exploration drilled six underground diamond drill holes from the Emma Adit totaling 735'.

1965-72 Stikine Silver extended the Emma Drift 265' and added to trenching on the #22 zone.

- 1973 Kalco Valley Mines drilled seven diamond drill holes, totaling 983' on the north end of the #22 zone.
- 1975 Texasgulf performed geological, E.M. and magnetometer surveys.
- 1976 Texasgulf drilled seven diamond drill holes totaling 1,225 feet on the #5 and Emma Creek zones.
- 1979 May Ralph Industries high-graded trenches of the #22 zone and shipped 9.65 tons of picked ore to the Trail smelter.
- 1980-83 Ryan Exploration (U.S. Borax) performed soil and rock geochemical surveys and drilled three holes totaling 496m on the #22 zone.

Only two ore shipments have been recorded although several small test shipments are thought to have been made during the 1930's.

- 1971 Stikine Silver shipped 1.68 tons of picked ore, yielding: 0.3 oz gold, 239 oz silver, 64 lb lead, 94 lb zinc; assaying: 0.2 oz/t gold, 142.3 oz/t silver.
- 1979 May Ralph Industries shipped 9.65 tons of picked ore yielding: 40.62 oz gold, 819.54 oz silver, 907 lb lead, 2220 lb zinc; assaying: 4.208 oz/t gold, 84.90 oz/t silver."

In 1985, Kerrisdale Resources Ltd. carried out diamond drilling on the #21 and #22 zones, and in 1987 Consolidated Stikine Silver Ltd. conducted a soil sampling and trenching program on the Eskay Creek property.

During 1988 and 1989, the Eskay Creek property was extensively drilled by Calpine Resources Inc.-Consolidated Stikine Silver Ltd. and extremely promising results were reported from the #21 zone since hole 88-6 hit 96.5 feet grading 0.73 oz gold and 1.1 oz silver (Northern Miner, Nov. 7/88). In August 1989, Calpine released a 46 foot interval (hole 89-87) grading 1.67 oz gold (Northern Miner, Aug 14/89) and on August 28, 1989, results from hole 89-109 were

reported in the Northern Miner as follows: "682 foot interval grading an average of 0.875 oz gold, 0.97 oz silver, 1.12% lead and 2.26% zinc. Within this interval is a 200.1 foot section averaging 2.877 oz gold, 0.85 oz silver, 1.86% lead and 3.44% zinc". Also reported in the Northern Miner (Sept. 4/89) is massive sulphide intersection located at the north end of the #21 Zone consisting of a 30 foot section and a 26 foot section of pyrite-galena-sphalerite-chalcopyrite massive sulphide mineralization. To date, the Calpine Resources Inc. - Consolidated Stikine Silver Ltd. Eskay Creek property has probable and possible geological reserves in the 21B zone 1.5 million tons grading 1.43 oz. gold and 40.26 oz. silver per ton, plus 2.1% lead and 5.08% zinc (Northern Miner, April 9, 1990). The ARC 18-21 claims lie 16 kilometres west-southwest of the Eskay Creek deposit.

REGIONAL GEOLOGY AND MINERALIZATION

The subject properties lie within the western most part of the Intermontane Tectonic Belt, close to its boundary with the Coastal Crystalline Tectonic Belt. As a result of the proximity of this area to a regional tectonic boundary, geologic relationships tend to be quite complex. The geology of this area (Figure 3) has been studied by Kerr (1930, 1948), and by Grove (1986), and is represented in Geological Survey of Canada Maps 9-1957, 1418A and 1505A.

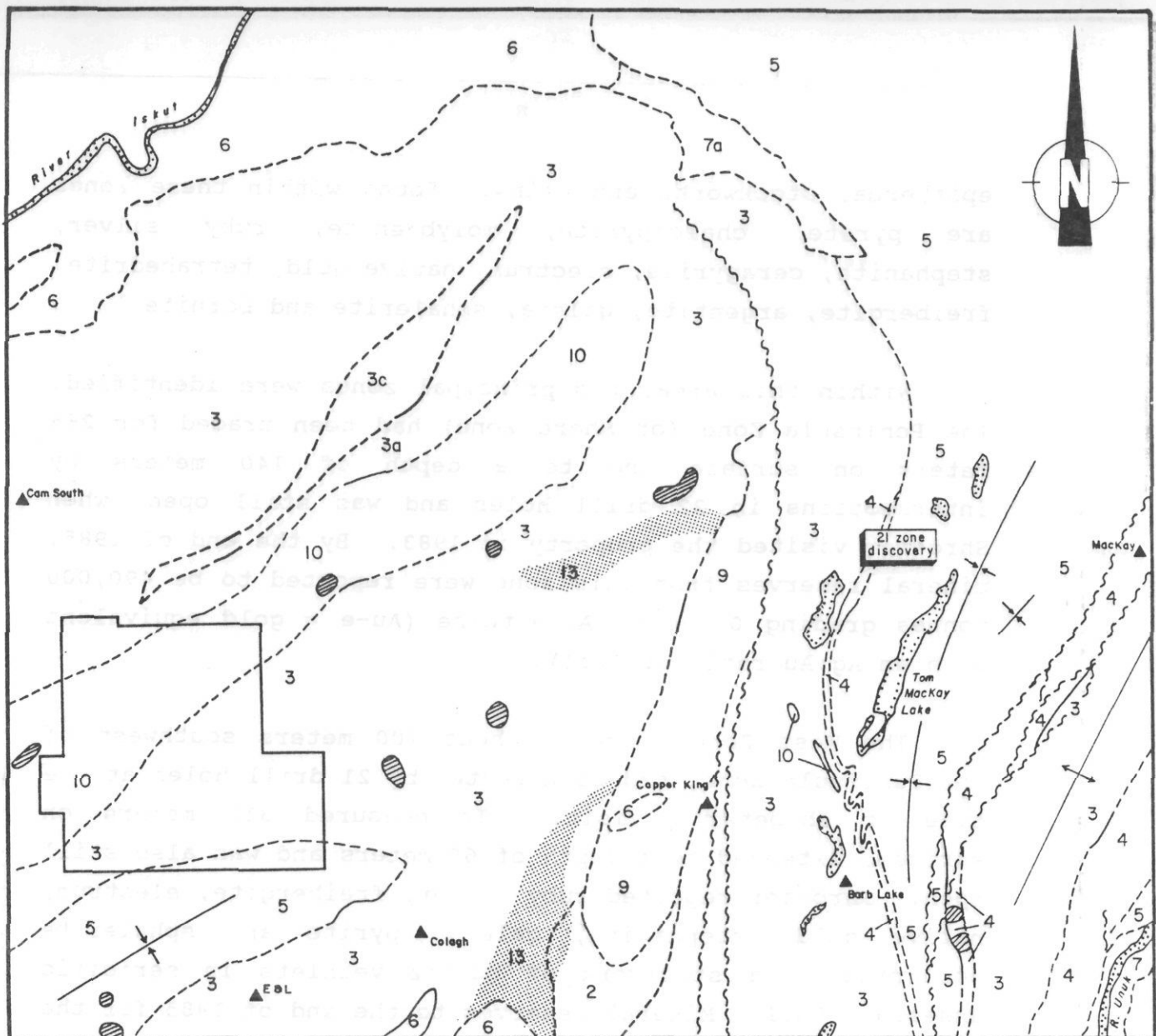
In the Sulphurets area, Shroeter (1983) examined the geology and mineralization in the Brucejack Lake area where hornblende syenites, alkali feldspar syenites and country rocks are cut by numerous north to northwesterly faults and are intensely altered with sericite, K-feldspar, silica, carbonate and chlorite. Five separate sulfide zones occur along a 7 kilometer belt with mineralization occurring in several styles, including low grade disseminations,

epithermal stockworks and veins. Found within these zones are pyrite, chalcopyrite, molybdenite, ruby silver, stephanite, ceragyrite, electrum, native gold, tetrahedrite, freibergite, argentite, galena, sphalerite and bornite.

Within this area, two principal zones were identified. The Peninsula Zone (or Shore Zone) had been traced for 265 meters on surface and to a depth of 140 meters by intersections in 22 drill holes and was still open, when Shroeter visited the property in 1983. By the end of 1985, mineral reserves from this zone were reported to be 490,000 tonnes grading 0.890 oz Au-e/tonne (Au-e = gold equivalent with an Ag:Au ratio of 50:1).

The West Zone, located about 700 meters southwest of the Peninsula Zone, had been tested by 21 drill holes at the time of Shroeter's visit. It measured 310 meters on surface, extended to a depth of 60 meters and was also still open. Shroeter reported ruby silver, freibergite, electrum, native gold, stephanite, galena, pyrite and sphalerite occurring in a stockwork of quartz veinlets in sericitic andesitic tuff. Mineral reserves to the end of 1985 for the West Zone are 496,452 tonnes grading 0.694 oz Au-e/tonne.

During 1986, Newhawk put in 1,500 feet of development drifting and crosscutting to obtain a bulk sample from the West Zone. During November, 1986, one of the writer, J.P. Sorbara, had the opportunity to examine the underground workings and sample the mineralization. Two crosscuts have shown that the width and grade of the body is generally uniform with intermittent spectacular high grade sections. The first crosscut assayed 0.234 oz gold/ton and 6.2 oz silver/ton over a true width of 50 feet and 0.216 oz gold/ton with 14.25 oz silver/ton over a true width of 17 feet (Stockwatch, November 13, 1986). The second crosscut averaged 0.225 oz gold/ton and 16.60 oz silver/ton over a



(after G.S.C. open file map 1989-10)

LEGEND

- 13 Post-tectonic dykes
- 10 Syn to post-volcanic intrusions
- 9 Unuk river diorite suite
- 7 Unconsolidated sediments
- 6 Basalt flows and tephra
- 5 Siltstone sequence (Salmon River Formation)
- 4 Felsic volcanic sequence (Mt. Dilworth Formation)
- 3 Pyroclastic - epiclastic sequence (Betty Creek Fm.)
- 2 Andesite sequence (Unuk River Formation)

- Gossanous alteration zone
- Geological boundary (approx, assumed)
- Regional anticline, syncline
- Area with over 40% Tertiary dykes
- Mineral occurrence



- Open water
- Claim outline



SANTA MARINA GOLD INC.		
ARC 18-21 CLAIMS Skeena and Liard M.D.'s, B.C.		
Regional Geology		
Scale 1 : 200 000	Date April 1990	N.T.S. 104 B/10
By SORBARA GEOLOGICAL CONSULTING LTD.		Figure 4

true width of 52.5 feet (Stockwatch, December 2, 1986). Grab samples reported from within this zone returned up to 5.786 oz gold/ton with 890.45 oz silver/ton, but these results were not included in the grade calculations of 0.225 oz gold/ton over 52.5 feet.

Drilling has implied this body is 1,000 feet long and extends at least 1,000 feet down dip. High grade pockets and veins within the mineralized zone are reported to run up to 3 or 4 ounces of gold and hundreds of ounces of silver. A grab sample collected by J.P. Sorbara (1986) from the lowest crosscut returned values of 2.348 oz gold/ton and 1061.67 oz silver/ton.

The Gossan Hill Zone had apparently not been found until after Shroeter's 1983 visit, but lies only 400 meters west of the Peninsula Zone. To the end of 1985, mineral reserves from this high grade area totalled 25,091 tonnes grading 2.209 oz Au-e/tonne over a true width of 10.5 feet.

Together, the 3 zones described above comprise the reported 1,011,543 tonnes of mineral reserves in the Brucejack Lake area, which have a weighted average of 0.826 oz Au-e/tonne. Two more zones, the Spine and Galena, lie just south of the Gossan and West Zones. Here galena, sphalerite, pyrite, chalcopyrite and native gold are reported in altered andesite.

Northwest of Brucejack Lake some 3.5 miles lies the Snowfield Gold Zone, which had not been discovered until 1985. Based on 625 feet of surface trenching and 5 drill holes, preliminary estimates by Newhawk Gold Mines Ltd. are that this bulk tonnage zone could host 7,000,000 tonnes grading 0.083 oz Au/tonne (Sorbara, 1987).

In the Unuk River Area, a geological cross section of the Calpine/Consolidated Stikine's Eskay Creek property was given to the writers by Mr. Jerry McArthur, geologist in charge of the project (personal communication, Sept. 1989). The hanging wall consists of interbedded breccias, pillow lavas and andesites up to 100 meters thick. The contact zone, a black argillite containing felsic fragments up to 2 inches across, is 10 to 15 meters thick with mineralization occurring at the base of the unit. In the north section of the contact #21 Zone, mineralization consists of electrum, aktashite (Cu-Pb-Zn-Ag-Hg sulphosalt) and honey coloured blebs of sphalerite rimmed with chlorite alteration. Free gold was observed in the core. Disseminations and needles of arsenopyrite predominate in the south section of the #21 contact zone with sections of massive stibnite, veinlets of stibnite and blebby realgar. Gold assays from this contact zone vary from .25 oz Au/t to several oz Au/t. Mineralized textures throughout the core vary from structurally controlled to layered syngenetic at as of to date no firm control has been agreed upon.

The footwall belongs to the Dillworth Formation and consists of a 100 to 150 meters thick rhyolite breccia lapilli tuff. Along strike to the north the lapilli fragments are finer. Alteration observed is silicification, strong K-spar and white mica. Gold assays from this section vary up to .25 oz Au/t. A 10 to 20 meters thick argillite layer separates the lapilli tuffs from a felsic lithic tuff which varies from 60 to 100 meters thick. This latter unit, which may be the equivalent of the Betty Creek Formation, forms large gossans of pyritic material assaying from .15 to .25 oz Au/t. The bottom of the footwall is formed by thickly bedded siltstone containing pelecypods (dating in progress) and locally developed conglomerates. Drill intersections from 1990 infill drilling in the 21B deposit include hole 90-239 which intersected 29.5 feet grading

2.047 oz. gold and 72.37 ozf. silver per ton and hole 90-291 which intersected 68.8 feet grading 1.315 oz. gold and 81.81 oz. silver per ton.

The South Zone has been outlined for 300 meters along strike and 200 meters down dip and reserves have been calculated at 6.49 million short tons at 0.535 oz Au/t and 14.13 oz Ag/t (Stockwatch April 11, 1990). This South Zone is to be mined by open pit methods.

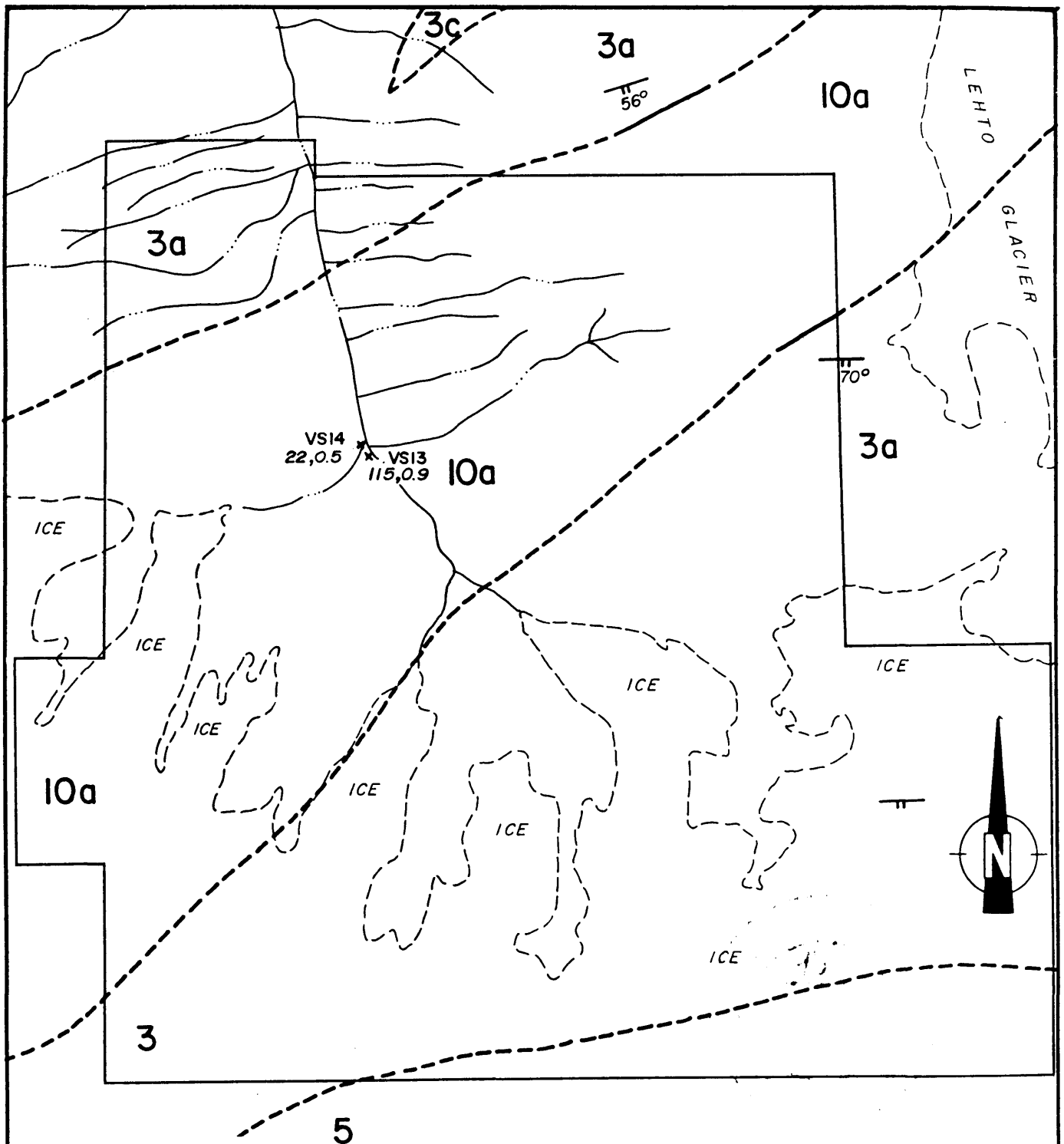
The latest reserve calculation for the 21 Zone of the Eskay Creek deposit (Stockwatch April 11, 1990) by Orcan Mineral Associates is 3.285 million tons (indicated and inferred) grading 1.079 oz Au/ton and 26.85 oz Ag/ton using a 0.250 cut-off grade. The total contained ounces of metal using this cut-off would be 3,544,280 oz Au and 88,226,351 oz Ag.

The Eskay Creek deposit is regarded by many explorationists to be the most significant new discovery in Canada since the Hemlo discovery.

PROPERTY GEOLOGY

The geology of the subject property has been compiled from regional mapping by Alldrick and Britton (1989). Their work implies that the property is predominantly underlain by green and grey, massive to poorly bedded andesitic rocks of Lower Jurassic age belonging to the Betty Creek Formation (Figure 5).

In the southeastern portion of the property these rocks form the northern limit of a northeast trending syncline which cuts Nickel Mountain.



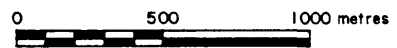
LEGEND

- 10a** Lehto porphyry: K-feldspar-plagioclase-hornblende porphyry granodiorite to syenite
- 5** Dark grey, well-bedded siltstone with minor sandstone and conglomerate
- 3** Heterogeneous grey, green, locally purple or maroon, massive to bedded pyroclastic and sedimentary rocks; pillow lava
 (3a) Green & grey, massive to poorly bedded andesite
 (3c) Andesitic lapilli tuff with pink siliceous clasts

--- Contact (approx., assumed)

||| Bedding

x VS14 22,0.5 Silt sample location I.D. Au (ppb), Ag (ppm)



SANTA MARINA GOLD INC.

ARC 18-21 CLAIMS

Skeena and Liard M.D.'s, B.C.

**Property Geology and
Rock Geochemistry**

Scale 1 : 25 000	Date April 1990	N.T.S. 104 B/10
By SORBARA GEOLOGICAL CONSULTING LTD.		Figure 5

While inspecting the subject property by helicopter, the writer observed several gossanous areas occurring within these volcanics in the southeast quadrant of the claim group.

The central to northern area of the property is reported to be underlain by porphyritic intrusive rocks, namely the Lehto porphyry. This unit comprises K-feldspar-plagioclase-hornblende granodiorite to syenite. Two silt samples were collected by the writer from this portion of the property during the 1989 field season. Sample VS-13 was taken from the main creek adjacent to VS-14 which was obtained from a pup stream draining the western flank of the property. (Figure 5). These samples returned 115 ppb and 22 ppb gold respectively which were considered anomalous. Eleven other creeks sampled outside the property area during the same period returned only from 1 to 4 ppb gold.

The extreme northwestern portion of the property is again underlain by andesitic rocks of the Betty Creek Formation.

Apart from regional mapping, minor geochemical sampling, and some personal observations by the writer, little is known about the subject claims. The limited data, however, does imply that the claims have geology favourable for precious metal mineralization.

CONCLUSIONS AND RECOMMENDATIONS

The subject mineral claims lie 16 kilometres west-southwest of the important new Eskay Creek deposit in northwestern British Columbia. The property is believed to be underlain by andesitic volcanic rocks of the Betty Creek Formation as well as porphyritic intrusive rocks. Little

hard data is available on these claims, however the writer has demonstrated that some streams draining the property have anomalous precious metal contents and that unsampled gossanous areas exist within the claim boundaries.

The writer concludes that the Arc 18, 19, 20, and 21 claims have the potential to host significant precious metal +mineralization and that an exploration program designed to test that potential is warranted.

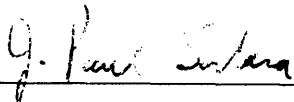
The writer recommends a two-phase exploration program with Phase II being contingent upon favourable results from Phase I. The preliminary phase should include preparation of a proper orthophoto base map for control with extensive geological mapping and geochemical sampling, including rocks, panned concentrates, silts and soils. gossanous areas should be sampled in detail and possibly blast-trenched.

Phase II would consist of preliminary diamond drilling of targate defined by Phase I.

An estimate of the cost of the programs is given in Appendix I.

Respectfully submitted,

SORBARA GEOLOGICAL CONSULTING LTD.



J. PAUL SORBARA, M.Sc., F.G.A.C.

April 3, 1990

REFERENCES

- ALLDRICK, D.J., 1984. Geologic Setting of the Precious Metal Deposits in the Stewart Area BCDM. Geol. Fieldwork 1983 paper 1984-1, pp. 149-163.
- ALLDRICK, D.J., et al, 1989. Geology and Mineral Deposits of the Unuk Area. GSC open file map 1989-10.
- BRIDGE, D.A., 1983. Epithermal Silver-Gold Veins, Mitchell-Sulphurets Property, B.C. (CIM 8th District Meeting).
- ECCLES, L., 1981. Geological and Geochemical Report on the SOB Claims, Dupont of Canada Explorations Limited. Assessment Report No. 9234.
- ECCLES, L., 1981. Geological and Geochemical Report on the Elgar Claims, Dupont of Canada Explorations Limited. Assessment Report No. 9233.
- GRAF, C., 1984. Geological Branch Assessment Report 13369.
- GROVE, E.W., 1982. Geology of the Unuk River-Salmon River-Anyox Map Area, BCDM miscellaneous map series (to accompany Bulletin 63 in prep.).
- GROVE, E.W., 1968. Ted Ray Claims, BCDM Annual Report. pp. 45-6.
- HARRIS, C.R. 1985. Report on the Kay and Tok Claims, Unuk River, B.C., Skeena Mining Division. Unpublished report for Kerrisdale Resources Ltd.
- KERR, F.A., 1948. Geology of the Lower Stikine and Western Iskut Rivers Area GSC Memoir 248.
- KIRKHAM, R.V., 1963. The Geology and Mineral Deposits in the vicinity of the Mitchell and Sulphurets Glaciers, Northwest British Columbia. Unpub. M.Sc., Thesis, the University of British Columbia.
- KURAN, V., 1985. Assessment Report on the Unuk River Property, Kay, Tok and GNC Claims, Skeena Mining Division.
- MCLEOD, D.A., 1985. Newhawk Gold Mines Ltd. Press Release (December 10, 1985).

SCHROETER, T.G., 1983. Bruce Jack Lake (Sulphurets Prospect), BCDM Fieldwork, P 1983-1. pp. 171-74.

WALLASTER, 1984. Geochemical Report on a Silt and Soil Sampling Survey Over Portions of the Kerr 1-5, Kerr 7-10, Kerr 12-35, Kerr 38-44 and Kerr 49-51 Claims, B.C. Assessment Report No. 12741.

APPENDIX I
ESTIMATED COST OF PROPOSED PROGRAMS

ESTIMATED COST OF PROPOSED PROGRAM

Phase I

SALARIES

Project Geologist	14 days @ \$375.00/day	\$ 5250.00
Assistant Geologist	14 days @ \$275.00/day	\$ 3850.00
2 Technicians	14 days @ \$200.00/day	\$ 5600.00
Supervision	3 days @ \$400.00/day	\$ 1200.00
		<u>\$15,900.00</u>

Mobilization/Demobilization		\$15,000.00
Helicopter Support	30 hours @ \$600.00/day	\$18,000.00
Domicile	59 man days @ \$110.00/day	\$ 6490.00
Field Supplies		\$ 2000.00
Geochemistry	650 samples @ \$15.50	\$10,075.00
Project Preparation (orthophoto base map)		\$ 5000.00
Report Compilation		\$ 5000.00
Drafting		\$ 1000.00
Expediting		\$ 1200.00
Project Management		\$ 7000.00
Contingency @ 15%		\$10,000.00

Estimate of Total costs Can\$: \$79,987.00

Say Total Cost: Can\$80,000.00

Phase II

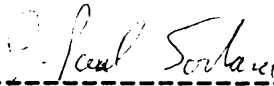
The exact cost of Phase II would depend on the number of targets discovered in Phase I that require diamond drilling and is therefore hard to estimate at this time. However a cost on the order of \$200,000.00 would be expected for a modest program of this type in mountainous terrain.

APPENDIX II
STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

I, J. PAUL SORBARA, of 6703 Nicholson Road, in the Municipality of Delta, in the Province of British Columbia, hereby certify:

1. THAT I am a geologist residing at 6703 Nicholson Road, in the Municipality of Delta, in the Province of British Columbia.
2. THAT I graduated with a B.Sc. in geology from the University of Toronto, in the City of Toronto, in the Province of Ontario, in 1976, and with an M.Sc. in geology from the University of Toronto in 1979.
3. THAT I have practiced geology professionally from 1979 to 1988, including 5 years as an Exploration Geologist with Cominco Ltd.
4. THAT I am a registered Fellow of the Geological Association of Canada.
5. THAT this report is based upon a thorough review of published and printed reports and maps on the subject property and the surrounding area, and a personal examination of the subject property conducted on September 1, 1989.
6. THAT I have not received, nor do I expect to receive any direct or indirect interest in the ARC 18 to 21 mineral claims which are the subject of this report or any other claims within a radius of 10 km..
7. THAT I do not have, nor do I expect to receive any direct or indirect interest or securities in Santa Marina Gold Inc or Canadian Cariboo Resources Ltd.
8. THAT I consent to the use of this report in a Prospectus or Statement of Material Facts for the purpose of a private or public financing.

SIGNED:  -----

J. PAUL SORBARA, M.Sc., F.G.A.C.

April 3, 1990
Revised; July 20, 1990



CERTIFICATE OF THE DIRECTORS AND PROMOTERS OF THE ISSUER

The foregoing constitutes full, true and plain disclosure of all material facts relating to the securities offered by this Statement of Material Facts as required by the Securities Act and its regulations.

DATED: August 15, 1990

SANTA MARINA GOLD LTD.

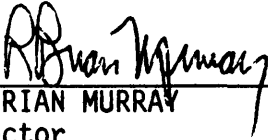


DONALD ROBERT SHELDON
Chief Executive Officer



D. WILLIAM CAMPBELL
Chief Financial Officer

ON BEHALF OF THE BOARD OF DIRECTORS



R. BRIAN MURRAY
Director



D. WILLIAM CAMPBELL
Director

PROMOTER



DONALD ROBERT SHELDON