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| EPORT YEAR: 1991, 72 Pages KEYWORDS: Triassic,Stuhin WORK ONE: Prospecting PROS 300.0 ha | ni Group,Andesites,King Salmon Formation ale(s) - 1:10 000 | |

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ASSESSMENT REPORT ON THE TULSEQUAH E PROJECT FOR OMEGA GOLD CORPORATION DEC 6 - 1991 M.R. # _____\$ ____ VANCOUVER, B.C. ASSESSMENT REPORT ON THE TULSEQUAH E PROJECT FOR ATLIN MINING DIVISION NTS 104K

GEOLOGICAL BRANCH ASSESSMENT REPORT

J. Chapman, F.G.A.C., P.Geol.

September 30, 1991

PREQUEST



906

OREQUEST CONSULTANTS LTD. 306-595 Howe Street, Vancouver, B.C., Canada, V6C 2T5 Telephone: (604) 688-6788 Fax: (604) 688-9727

SUMMARY

The Tulsequah E Project consists of 8 claims totalling 108 units within the Atlin Mining Division. The claims are wholly owned by Omega Gold Corporation and were staked in October of 1990.

A Phase I exploration program consisting of prospecting, reconnaissance mapping and sampling was undertaken from July 5, 1991 to July 25, 1991. The work was carried out by personnel from OreQuest Consultants Ltd. and Gold Fields Canadian Mining Ltd. on behalf of Omega Gold Corporation.

Field work was based out of a camp located on Trapper Lake approximately 30 km southeast of the project area using a Bell 206 helicopter, provided by Trans North Turbo Air, to access the property.

Reconnaissance mapping and sampling was carried out along traverse lines designed to evaluate results of a photogeological study previously completed and to examine known showings within and peripheral to the property area. Rock (47), soil (39) and silt (8) samples collected during this work were shipped to Vangeochem Labs in Vancouver and/or TSL Laboratories Ltd. in Saskatoon to be analyzed for gold and a 32 element ICP package.

Results of the rock and soil sampling program have shown elevated gold and copper values in the northeast portion of the claim block. These include up to 830 ppb gold and 7.66% copper from rock samples 10782 and 10821 respectively and 270 ppb gold and 6139 ppm copper in soil samples 10622 and 10695 respectively.

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J. Chapman, F.G.A.C.

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 Livgard Consultants Ltd., December 4, 1990
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Appendix C Rock Sample Description Sheets

1.

INTRODUCTION

This report, prepared by OreQuest Consultants Ltd., on behalf of Omega Gold Corporation, presents the results of the 1991 exploration program on the Tulsequah E Project.

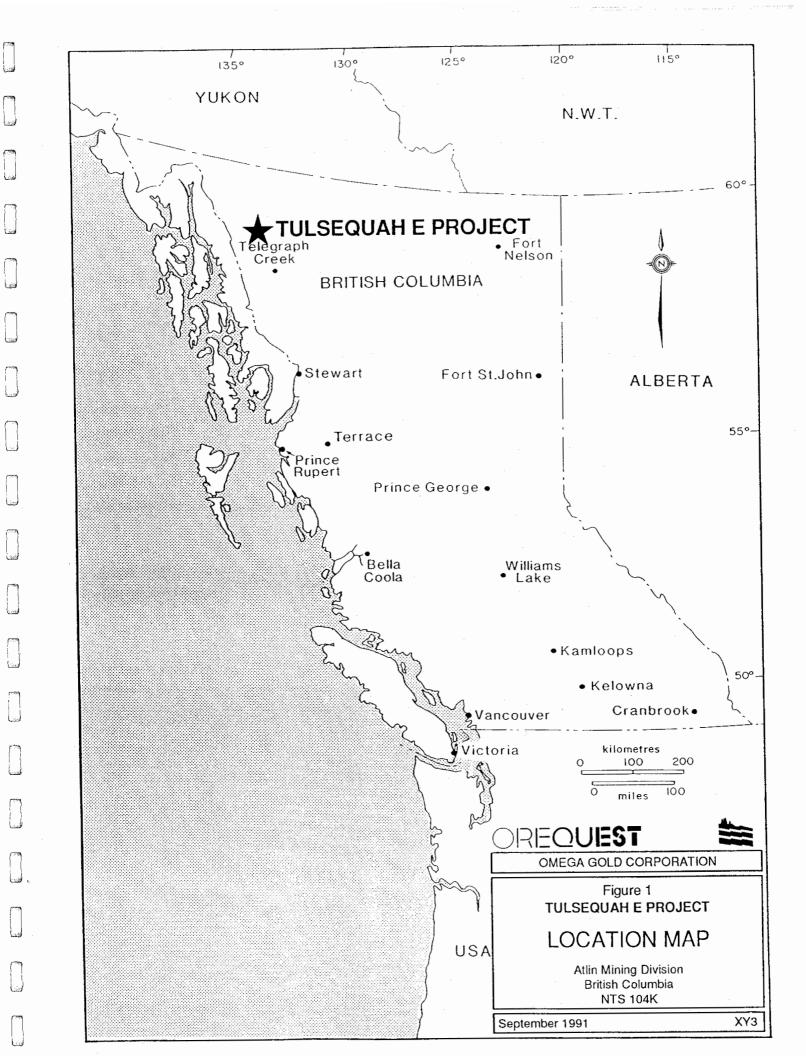
LOCATION AND ACCESS

The Tulsequah E property is situated in northwestern British Columbia (Figure 1), on NTS mapsheets 104K/10W, 11E, 14E, 15W. Reference coordinates for the project area are 58°44'N latitude and 132°58'W longitude.

The towns of Atlin and Dease Lake, from which charter float planes transported supplies and personnel to the field camp on Trapper Lake, southeast of the project area, are situated 150 km north and 150 km east respectively. The Golden Bear Mine, which is located 45 km to the southeast, is accessible by an all weather road, however final access to Trapper Lake and the project area would have to be by helicopter. The Polaris-Taku and Tulsequah Chief Mines, both former producers, are situated approximately 35 km west of the property.

PHYSIOGRAPHY AND VEGETATION

The Tulsequah E Project lies to the west of the Sutlahine River at the confluence with the Inklin River and is flanked by moderate to steep slopes of the Coast Mountains. Elevations on the property range from approximately 560 m above sea level, at King Salmon Lake in the southeast corner to 1540 m in the northwest. Treeline occurs variably



between 1000 and 1200 m, below which mixed fir, spruce, cedar and cottonwoods, with some undergrowth, are found. The summer field season extends from mid June to late October.

CLAIM STATUS

The Tulsequah E Project consists of 8 modified gird mineral claims, totalling 144 units, all within the Atlin Mining Division (Figure 2). These claims are wholly owned by Omega Gold Corporation. Pertinent claim information is summarized in the following table:

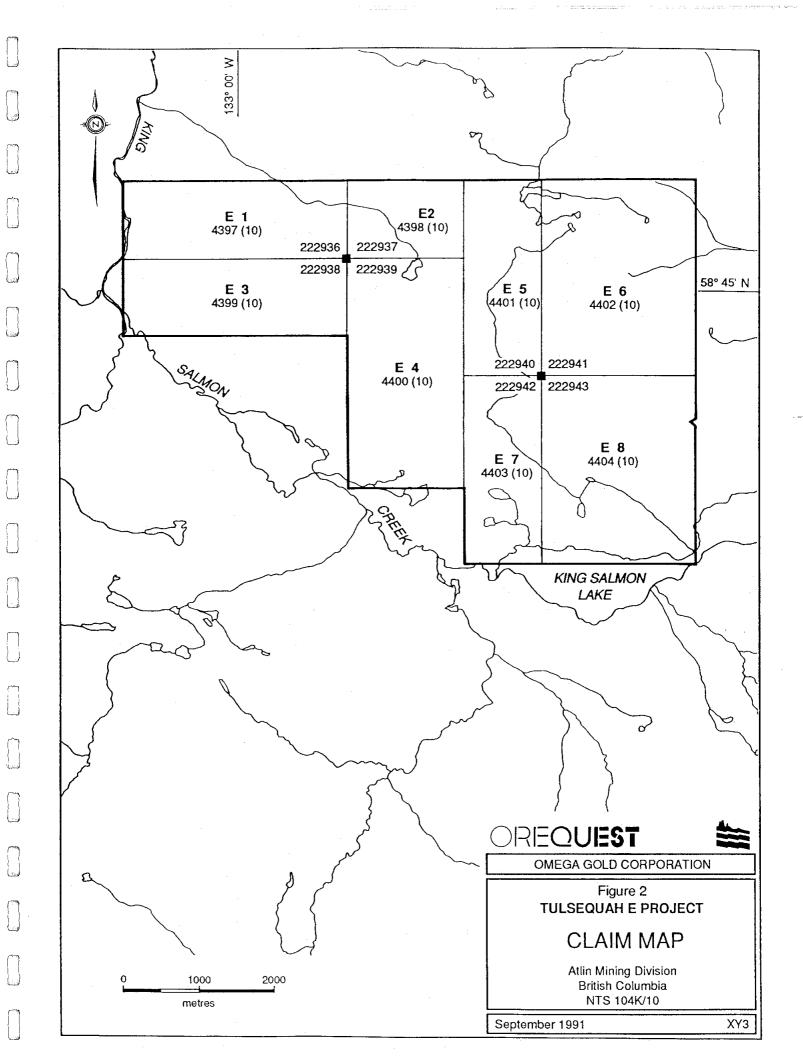
TABLE 1: CLAIM INFORMATION

| GROUP | MAP SHEET | CLAIM NAME | NO. OF UNITS | RECORD NO. | EXPIRY DATE* |
|-------|--|--|---|--|---|
| E | 104K/14E,15W 104K/15W 104K/10W,11E 104K/10W,15W 104K/10W,15W 104K/10W,15W 104K/10W | E1 E2 E3 E4 E5 E6 E7 E8 | 12 6 12 18 10 20 10 20 | 4397 4398 4399 4400 4401 4402 4403 4403 | October 3, 1991 October 3, 1991 |

*This does not reflect the current work which upon acceptance will extend the expiry date.

HISTORY AND PREVIOUS WORK

The Tulsequah area of northwestern B.C. is an area that is currently being reevaluated by a number of companies for both base and precious metal occurrences. At the Tulsequah Chief Mine, a former producer approximately 35 km west of the Tulsequah Project, Redfern Resources and Cominco Ltd. are currently developing additional reserves, which now stand at 8.0 million tons grading 1.55% copper,



1.23% lead, 6.81% zinc, 0.08 oz/ton gold and 2.19 oz/ton silver. At the Polaris-Taku Mine, also located approximately 35 km west of the property, Suntac Minerals upon completion of the 1991 drill program have announced reserves of 1,600,000 tons grading 0.45 oz/ton gold in the "Y" vein and "C" veins (GCNL, Sept. 9, 1991). Both the Tulsequah-Chief and the Polaris-Taku projects will receive additional work in 1992.

The only operating mine in the region is the Golden Bear Mine, located approximately 80 km southeast of the Tulsequah E Project area. This mine, a joint venture between Chevron Minerals and North American Metals, a division of Homestake Mining, began production in late 1989. Initial reserves stood at 300,830 tonnes grading 16.37 g/t gold amenable to open pit mining and an additional 296,235 tonnes grading 20.97 g/t to be mined by underground methods. The mine is currently operating at a rate of 315 tonnes per day. The property contains a number of important exploration targets that will be tested by the joint venture partners as a part of ongoing property development.

The numerous mineral occurrences in the general area of the project are summarized in Table 2 and located on Figure 3.

| TABLE 2: | MINERAL | OCCURRENCES | (MINFILE) |
|----------|---------|-------------|-----------|
| | | | |

| MinFile # | e Name | Commodity | Description | |
|--------------|--------|-------------------------|---|---|
| 11 | Barb | Cu, Ag, Zn, A Pb, Sb | Au Skarn mineralization in limestone with chalcopyrite, sphalerite, pyrrhotite, stibnite, pyrite and magnetite | , |

| nFil # | e Name | Commodit | У | | Description |
|--------------------|-----------------------|-------------------|--------------|----|---|
| # 18 | Thorn (INK) | Cu, Mo, Ag, Ba | Au | | Fault zone in rhyolite and breccia with pyrite and galer |
| 26 | LC 2, Peter | Mo Mo | | | Quartz veins in sheared quart diorite with molybdenite |
| 27 | LC 2 | Cu, Pb, | Zn, | Ag | |
| 29 | BS-J | Cu, Mo | | | Fault zones in quartz monzonit with chalcopyrite ar molybdenite |
| 30 | Кау | Cu, Mo | | | Chalcopyrite and molybdenite is syenite intruding diorite |
| 31 | Thorn (INK3-6) | Cu, Ag | | | Quartz veins in rhyolit breccias with chalcopyrite pyrite and galena |
| 37 | Tot 2 | Cu, Ag, | Sb, | Ba | Chalcopyrite veins, stibnite ar barite veins in a chlorit schist |
| 40 | Val 1 | Cu, Ag, | Mo, | Au | Quartz vein in quartz monzonit with bornite, chalcocite an molybdenite |
| 41 | MB | Cu | | | Silicified volcanics and sediments with chalcocite an pyrite |
| 63 | Tun | Cu, Mo | | | Shear zones in pegmatite intruding quartz monzonites with chalcopyrite, molybdenite and bornite |
| 70 73 | Kowatua Creek Griz | Lst Au Ph | 7 n | ٨ | Limestone Crosscutting quartz veins |
| 75 | GLIZ | AU, ID, | 211 <i>1</i> | лу | porphyry dykes which intrude sediments, with galena |
| 78 | Inlaw | | | | Quartz veins in rhyolite |
| 83 | Outlaw | | | | Quartz veins in rhyolite dykes stockwork zone in contac hornfels zone; pyrite vein sphalerite, pyrite arsenopyrite, galena, stibnite pyrrhotite and chalcopyrite |
| 106 | Val 3 | Mo, Cu | | | Pyritized, altered quartz monzonite with chalcopyrite and molybdenite |
| 107 | Barb | Au, Sb, | Ag | | Skarn mineralization along majo thrust fault, contain magnetite, chalcopyrite, galen and pyrite |

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| MinFile # | Name | Commodity | | Description |
|--------------|--------|-------------------|--------|--|
| 112 | Tardis | Sb, Hg, | Fl | Silicification, clay alteration, carbonatization and fluoridization along major fault system at intersection of small faults |
| 113 | Rod | Au, Ag, Cu, Pb | Sb, Zn | Silicification and quartz veins in basalts containing massive arsenopyrite |
| 114 | Griz 3 | Ag, Pb, | Zn, Cu | Crosscutting quartz veins in porphyry dykes which intrude sediments, containing galena, sphalerite, arsenopyrite and pyrite |
| 115 | Emu | Sb, Cu | · | Crosscutting quartz veins in dykes which intrude quartz monzonite, containing galena, sphalerite and pyrite |
| | Metla | Au, Ag, Cu | Zn, Pb | Crosscutting breccia bodies in volcanics and sediments, which contain pyrite, sphalerite, chalcopyrite and galena |

Cu=copper, Ag=silver, Au=gold, Zn=zinc, Sb=antimony, Pb=lead, Fl=fluorite, Ba=barium, Asb=asbestos, Lst=limestone, Mo=molybdenum, Tc=talc

The Barb and BWM mineral occurrences exist within or very close to the eastern border of the Tulsequah E claim block.

General interest in the area increased as a result of the recent work by Cominco on their Metla property. The Metla property was first discovered in 1957 by Cominco prospectors. The original discovery consisted of a sample taken at the edge of a glacier which contained 0.32 oz/ton gold, 1.46 oz/ton silver, 1% copper and 1.0% zinc. Cominco returned to the property in 1988 and discovered an extensive area of mineralized float that was now exposed as a result of the ice receding. During 1989 and 1990, Cominco collected numerous rock

samples, of which the 155 that were assayed from six target areas averaged 0.28 oz/ton gold. Galico Resources Inc. has an option to earn a 50% interest in the property and conducted an extensive exploration program on this property in 1991. Results of the drilling program carried out were disappointing with no assays approaching the grade of the float samples.

The BWM mineral occurrence (#011) appears to be related to the quartz diorite intrusion on the east side of the property. The BWM showing was discovered in the 1930's, acquired by Cominco in 1947 and optioned to Hudson Bay Mining and Smelting in 1949. Trenching and 943 feet of EX size drilling was done in the 1950's on mineralized breccia bodies. Between 1950 and 1964 the ground was restaked several times, however no record exists of any work done during this period. It was acquired by Chevron in 1981.

Chevron located a large gossan adjacent to the quartz diorite intruding the King Salmon sediments, the BWM showing. Mineralization which consists of pyrite, chalcopyrite, sphalerite and pyrrhotite is located in a large breccia body, similar in occurrence to the Galico/ Cominco Metla breccia bodies. The main breccia body is located in the southeastern quadrant of claim E6. Several other breccia occurrences exist along and outside the eastern border of Block E. Samples taken from the breccia in 1981 returned trace gold, 3.7 oz/ton silver, 1.1% copper, 1.2% zinc and trace gold, 7.7 oz/ton silver, 19.7% copper and 2.3% zinc.

Six hundred metres northeast of this occurrence and 150 m east of the Block E claim border lies the Barb occurrence (#107). Upper Triassic Sinwa limestones lie along the King Salmon Thrust Fault. Intruding into the limestones are the quartz diorite intrusives which caused the Barb skarn occurrence. Irregular pods of massive magnetite with minor chalcopyrite, pyrite and galena are found at the limestone/intrusive contacts. Values reported were generally low for precious metals.

A preliminary Chevron soil survey returned one sample with >10,000 ppb gold. A detailed soil survey was completed over this area which returned values up to 1700 ppb gold but nothing similar to the original sample. This area lies along the eastern claim border, northwest of the main breccia occurrence (BWM) and south of the Barb occurrence. Gold values in this area ranged from 100-1700 ppb, arsenic values from 500->1000 ppm. Another small gold/silver anomaly was outlined just outside the property border, where gold values ranged from 100-295 ppb and silver values from 1 ppm-4.0 ppm.

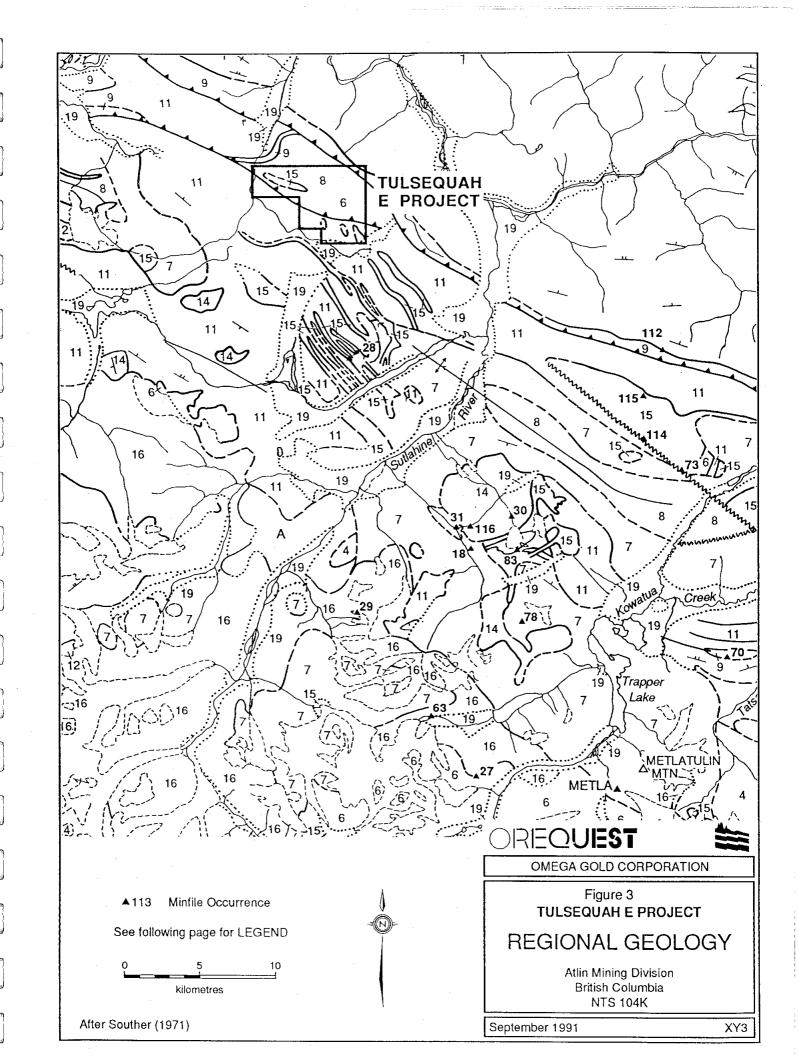
Livgard has identified two airphoto targets: 1) northwest trending lineaments crosscutting the Sloko porphyries and Stuhini sediments; 2) in the western claims an area of northeast and northwest trending lineaments in an area of porphyry intrusions, in the southwestern claims.

Two RGS samples, #873233 and #873234, were taken from a creek in the southeast corner of Block E, however neither sample returned anomalous values. No other samples were taken from drainages on the property.

REGIONAL GEOLOGY

The most recent regional geological mapping available for this area dates back to Souther (1971) who conducted his fieldwork during 1958-1960. The Tulsequah map area, a portion of which is reproduced in Figure 3, features the rocks originally defined as Stikine Arch and now referred to by the terrane assemblage term "Stikinia". Stikinia includes four tectonostratigraphic assemblages, namely the Paleozoicaged Stikine assemblage, several Triassic to Jurassic volcanicplutonic arc complexes, the middle to late Jurassic Bowser overlap assemblage and the Tertiary Coast Plutonic Complex. All are well represented in the Tulsequah map area except for the Bowser assemblage, which is may be represented by an equivalent unit called the Laberge Group.

The significance of Stikinia lies in the fact that it hosts mines and mineral deposits throughout northwestern British Columbia including the Premier and Big Missouri gold deposits and the Granduc copper massive sulphide deposits (Stewart area), the Johnny Mountain and Snip gold mines and the Eskay Creek gold-rich polymetallic massive sulphide deposits (Iskut River and Unuk River areas), and bulk tonnage copper-gold deposits (Galore Creek area). Closer to the project area



are the Golden Bear Mine (gold) and former producers Polaris Taku (gold), Tulsequah Chief and Big Bull Mines (copper).

PROPERTY GEOLOGY

This property is bounded to the north by the King Salmon Thrust Fault, a splay of which bisects the southern portion of the property. The central portion of the property is underlain by the Upper Triassic King Salmon Formation (Stuhini Group) which consists predominantly of sediments. North of the Thrust Fault lies Upper Triassic Sinwa Formation sediments. South of the southern splay of the King Salmon Fault the property is covered by Laberge Group sediments. Small bodies of Sloko equivalent porphyries have intruded into the King Salmon sediments in the western portion of the property. Middle Jurassic granodiorite, quartz diorite and diorite occur in the southeast corner of the property as well as just outside the east claim boundary (Figure 4).

The current mapping generally confirmed the published geology with minor modifications as shown on figure 4. In the area of the BWM occurrence a 10 m wide granodiorite dyke was noted in close proximity to the BWM occurrence and is likely related to the small Jurassic/Cretaceous intrusion along the King Salmon Thrust.

GEOCHEMISTRY

Rock, soil and silt samples were collected predominantly from two areas of the property. The bulk of the samples, 39 soils, 3 silts and 22 rocks were taken from the area of the Barb and BWM showings with the remainder in the region of two small intrusive bodies on the E4 claim.

Soil samples were taken from the B horizon, where present, at an average depth of 10-20 cm. On the eastern claim boundary they were collected at 50 m intervals along the 1200 m contour. This line passed uphill of the Barb showing and ended in the area of the BWM occurrence.

Two separate clusters of anomalous gold values, are evident along the soil line with both in the vicinity of the Barb showing. Five consecutive samples flanking the main drainage returned gold values of 65 ppb to 270 ppb while 200 m to the southeast two adjacent samples returned 145 and 105 ppb gold. Copper values associated with these samples returned highs of 2633 ppm and 1130 ppm. A northeast trending fault through this area may have influenced the formation of the Barb showing and provide a channelway for migrating fluids. A similar structural feature is present in the vicinity of the BWM occurrence which shows elevated copper in soil values but only weakly anomalous gold.

Rock samples returned a number of anomalous gold values up to 830 ppb (#10782). This sample consisted of strongly fractured siltstone and cherty argillite which was extensively iron carbonate altered and probably represents on unrecognized fault zone. All of the other rock

samples which contained over 100 ppb gold also are located along or adjacent to fault or fracture zones. High grade values of up to 6.45% and 7.66% copper were present in rock samples of mineralized breccia from the BWM occurrence containing chalcopyrite, malachite and bornite.

Silt samples along the soil line returned values similar to the soil results, however those from the southern area of the claim block contained no anomalous results.

STATEMENT OF EXPENDITURES

| Mob/Demob (prorated from Tulsequah Project) | \$ 1,027.45 | | | |
|--|--|--|--|--|
| Labour G. Cavey J. Chapman D. Cameron D. Burridge S. Martin S. Bescherer D. Terry 4.5 days @ \$225/day days @ \$225/day 0.5 days @ \$225/day 0.5 days @ \$225/day 0.5 days @ \$225/day 0.5 days @ \$150/day | 262.50 1,425.00 1,050.00 1,280.00 675.00 | | | |
| Support Costs (prorated from Tulsequah Project) | 3,190.32 | | | |
| Transportation and Communication 260.42 | | | | |
| Helicopter | 4,517.02 | | | |
| Analyses Livgard Photogeological Study | 1,820.00 12,129.40 | | | |
| Report Costs Total | $\frac{1,000.00}{$28,637.11}$ | | | |

STATEMENT OF QUALIFICATIONS

I, Jim Chapman, of Route 1, Box L15, Bowen Island, British Columbia hereby certify:

- I am a graduate of the University of British Columbia (1976) and hold a B.Sc. degree in geology.
- I am presently employed as a consulting geologist with OreQuest Consultants Ltd. of #306-595 Howe Street, Vancouver, British Columbia, V6C 2T5.
- I have been employed in my profession by various mining companies since graduation.
- 4. I am a Professional Geologist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- 5. I am a Fellow of the Geological Association of Canada.
- 6. The information contained in this report was obtained from a review of data listed in the bibliography, implementation of the program and knowledge of the area.
- I have no interest, direct or indirect or in the securities of Omega Gold Corporation.
- 8. I consent to and authorize the use of the attached report and my name in the Company's Prospectus, Statement of Material Facts or other public document.

Jim Chapman Consulting Geologist, F.G.A FEILO

DATED at Vancouver, British Columbia the 30th day of September, 1991.

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MEMPR

: Minfile

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APPENDIX A

PHOTOGEOLOGICAL INTERPRETATION OF "E" GROUP OF CLAIMS

LIVGARD CONSULTANTS LTD., DECEMBER 4, 1990

REPORT ON THE

'E' GROUP

OF CLAIMS

LOCATED IN THE TULSEQUAH AREA

ATLIN M.D.

FOR

OMEGA GOLD CORPORATION

Egil Livgard, P.Eng. Livgard Consultants Ltd. Vancouver, B.C.

December 31, 1990



La:

LIVGARD CONSULTANTS LTD.

230 - 470 Granville St., Vancouver, B.C. V6C 1V5 Ph. 669-2426 .

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LIVGARD CONSULTANTS LTD. 230 - 470 Granville St., Vancouver, B.C. V6C 1V5 Ph. 669-2426

INTRODUCTION

- 1 -

Omega Gold Corporation acquired the claim group which is the subject of this report, after extensive geological study and airphoto interpretation. Two (Minfile) mineral showing is found near or partly on the claim group. The writer was asked by Jarl Aa. Whist, President of the company, to prepare a report on the property, summarizing all the available information. This report is based on the references as listed in the Appendix. The writer has not examined the property on the ground.

The writer is a Director of, and owns shares in, Omega Gold Corporation.



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SUMMARY

The Tulsequah area has seen active mining from 1937 up to 1957. Almost 2 million tons of ore was mined. Some of this was gold ore and some gold, silver, copper, lead and zinc ore. Several deposits in the area have been drilled and developed and may become producing mines.

The 'E' Group of claims owned by Omega Gold Corp. consists of eight claims totalling 108 units. The property is located in the Atlin Mining Division mainly on Mineral Claim Map 104K/10W, but also on Maps 15W, 14E and 11E, and on the Tulsequah Geology Map.

The claims cover mainly sedimentary rocks of the Upper Triassic Stuhini Group. These rocks are bounded on the southwest and northeast by two arms of the King Salmon Thrust Fault. North of the north arm of the thrust fault is found limestone of the Upper Triassic Sinwa Formation and south of the south arm sediments of the Jurassic Takwahoni Formation. These rocks and the thrust faults have been cut and offset by northeast striking faults. Three "plugs" of quartz-feldspar porphyry and one of diorite is found on the claims. Copper, lead, zinc mineralization and values in silver and gold are associated with these intrusives. Two mineral properties immediately east of the claims have received considerable exploration work in the past. Several areas on the property appear to be favourable for mineralization and a thorough exploration effort is warranted.



- 2 -

CONCLUSIONS

- 3 -

The 'E' Group of claims covers favourable rock types. There are mineral showings (Minfile) east of the claims and perhaps partly on the claims, which are of a type that may contain significant tonnages. The claim ground exhibits features which make it attractive exploration ground.

An exploration program is well warranted and will be recommended.



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RECOMMENDATIONS

- 4 -

There are five types of exploration targets expected on the property: large zones of dense fracturing, breccia zones, veins with massive sulphides and skarn and replacement deposits in limestone. The first step in exploration should be a remote sensing study for structural features, vegetation anomalies, iron rich zones and clay zones. The next step should be prospecting the claim ground looking for mineralization, oxide and manganese staining, silicification and carbonatization with particular emphasis on remote sensing anomalies. Prospecting is almost a lost art and it will be difficult to find people for the above work. At the same time the property is being prospected, silt sampling should be carried out followingup anomalous samples and also every creek draining the property.

Following the results from the above work, some favourable areas will be indicated. These should be further explored by either dense soil or rock chip sampling on a grid, depending on the nature of the terrain. The geology should be mapped and any mineralization channel sampled.



230 - 470 Granville St., Vancouver, B.C. V6C 1V5 Ph. 669-2426

ESTIMATED COST OF RECOMMENDATIONS

- 5 -

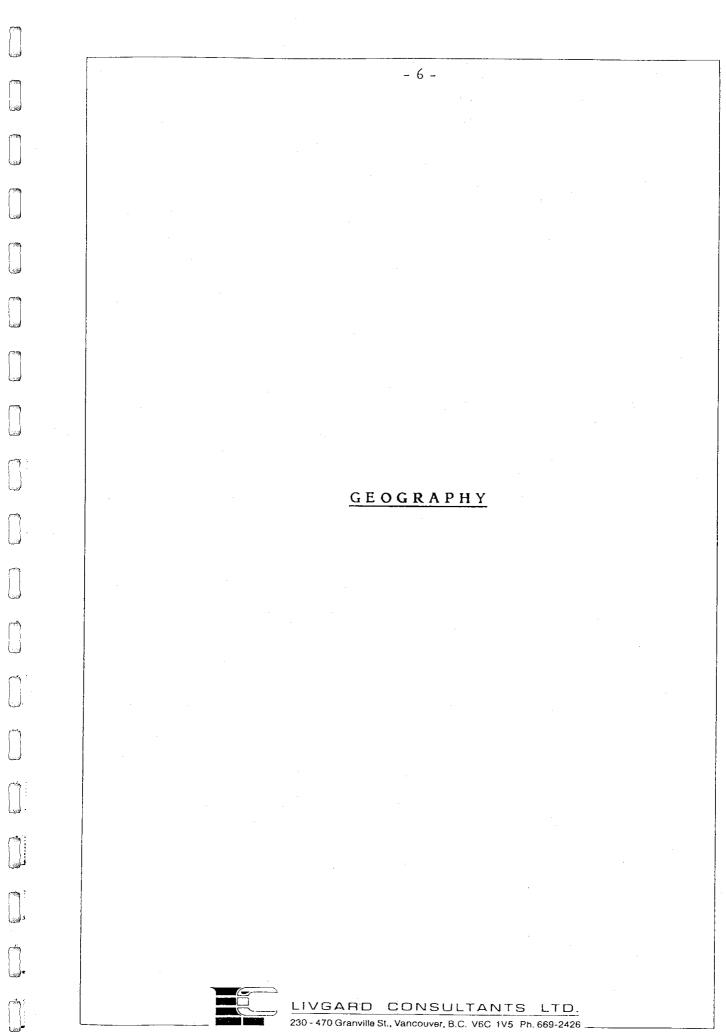
| Remote Sensing | | | |
|--|-----------------------|--------------|-------|
| Digital Information \$1,800 x 1/6 (6 properties) | \$ 300 | | |
| Interpretation | 2,000 | \$ | 2,300 |
| Prospecting | | | |
| Prospector - \$300/day x 21 days Helper/Sampler - \$150/day x 21 days | 6,300 <u>3,150</u> | | 9,450 |
| Stream Silt Sampling 2 Samplers – \$150/day x 21 days | | | 6,300 |
| Grid, Soil or Rock Chip Sampling (assume 5 areas - 400 x 500 m, 25 m sample spacing - 1,800 samples) | | | |
| 3 Samplers – \$150/day x 21 days 1 Geologist – \$300/day x 21 days | 9,450 6,300 | . 1 | 5,750 |
| Mobilization - Demobilization (includes travel, wage) | | 1 | 0,000 |
| Assaying 2,500 samples at \$12 | | | 0,000 |
| Camp | | | |
| 168 mandays at \$40 | | | 6,720 |
| Supervision and Report | | 1 | 5,000 |
| | | 9 | 5,520 |
| Contingency at 20% (approximately) | | 1 | 9,480 |
| TOTAL | | <u>\$ 11</u> | 5,000 |



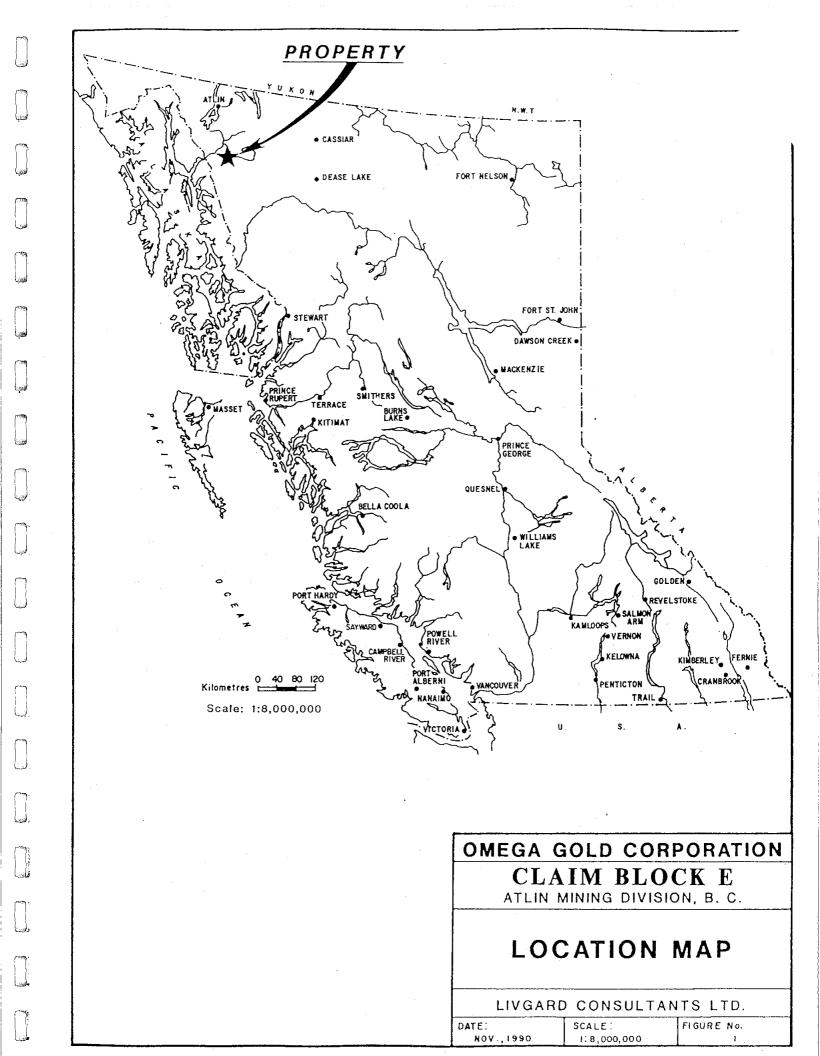
].

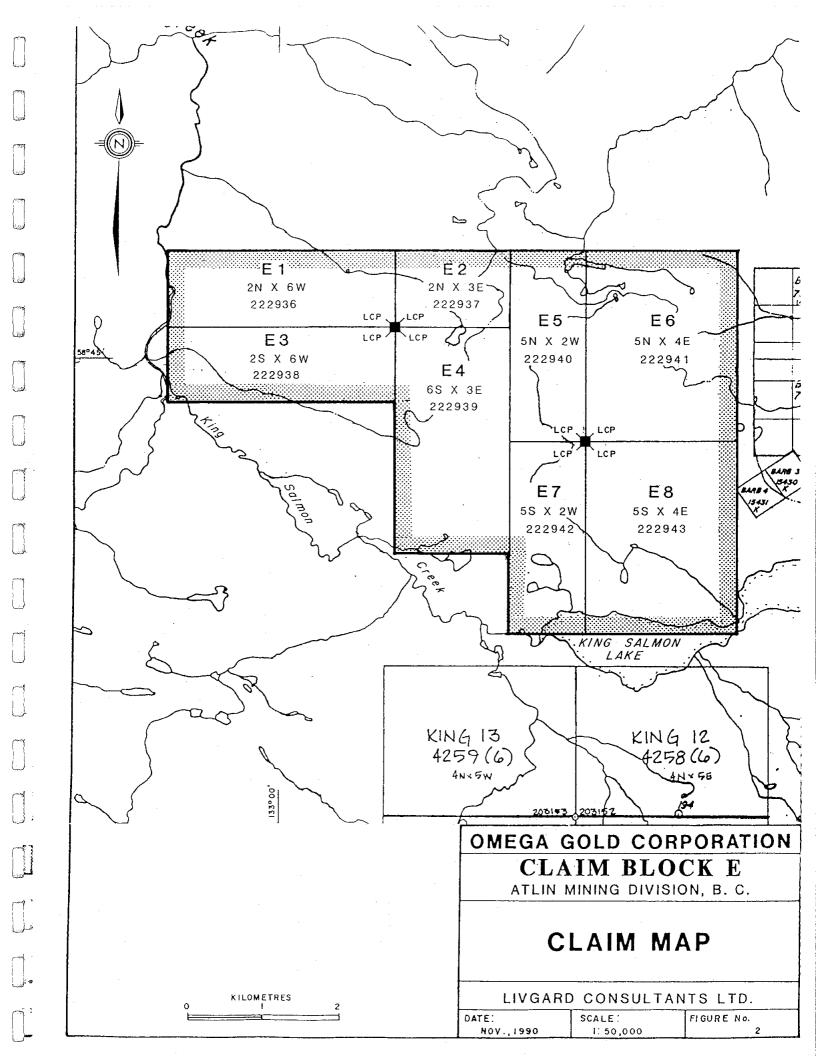
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PROPERTY

- 7 -

The property consists of eight modified grid claims with a total of 108 units. The claims are named E1 to E8 and have Record Numbers 4397 to 4404 inclusive.

The claims were staked on October 3, 1990, and assessment work is thus due by October 3, 1991. The claims are wholly-owned by Omega Gold Corporation.

LOCATION AND ACCESS

The property lies at approximately 58° 45' North and 132° 56' West. It is found mainly on Map Sheet 104K/10W, but also on Maps 15W, 14E and 11E, in the Atlin Mining Division, in the Tulsequah area. The property can be reached by fixed wing Pontoon aircraft; from Atlin, 105 km to the northwest, or from Telegraph Creek, 145 km to the southeast. A helicopter was also stationed at Tulsequah last year which lies 35 kilometres southwest of the property.

GENERAL PHYSIOGRAPHY

The property is located near the Boundary Range of the Coast Mountains on the Taku Plateau. The plateau has elevations between 800 and 1,500 metres above sea level (asl). It is generally flat table land or rolling and broken ground. The Mountain Range may have summit elevations from 2,500 to 3,200 metres asl.

Glaciers and ice fields are extensive in the range. Glacier-fed tributary streams discharge great volumes of sand-gravel and other debris into the river valleys which cut the range. These valleys are broad and the rivers frequently show extensive braiding.



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PROPERTY TOPOGRAPHY

- 8 -

The claims cover moderately steep hillsides going north from King Salmon Lake which lies at approximately 530 m a.s.l.

The northern half of the claims cover a rolling plateau from 1,000 to 1,3000 m a.s.l.

CLIMATE

As may be expected in a northern latitude, the winters are long and cold and the summers are pleasant but brief.

The average temperature is below 0° C for six months of the year and only three or four months of the year average over 10° C.

The mountains receive substantial precipitation which increases with altitude and frequently exceeds 100 cm annually. The plateau receives about 40 to 50 cm annually.

The exploration season with snow free ground varies very much with elevation, but may extend from June-July to the first part of the October.





- 9 -



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HISTORY

- 10 -

The search for gold was responsible for the initial development of the northwest. Placer gold was found on the Stikine River in 1861 near the present Telegraph Creek. In 1873 a gold rush took place at Dease Creek. In 1875 gold was located on the Taku River, and in 1898 the first placer claims were staked on the placer deposits near Atlin. The Atlin placer production has continued to the present day.

Underground mining was started at the Engineer Mine on Tagish Lake in 1913 and it produced intermittently until 1952. The most important mines in the area have been those at the Tulsequah River. The Whitewater (Polaris Taku) Mine operated from 1937 to 1951 and produced 719,000 tons of gold ore. The nearby Big Bull and Tulsequah Chief were opened in 1951 and continued until 1957 and produced 1 million tons grading .094 oz Au/ton, 3.4 oz Ag/ton, 1.3% copper, 1.3% lead and 6.2% zinc (recovered). Total production amounted to some 40 million dollars from these mines. In the 1960's and 1970's, the exploration effort was focused on porphyry copper and molybdenum. A number of deposits were located and some significant deposits were drilled. The 1980's saw renewed interest in base metals, gold and silver. Several deposits were drilled and reserves developed, particularly significant are the Muddy Lake or Golden Bear deposits which contain (1987) 1,200,000 measured geological tonnes grading 12.0 g gold per tonne. The Apex-Badger or Eriksen-Ashby which has (1987) 900,000 tonnes indicated ore grading 215 g silver, 17 g gold per tonne, 2.33% lead and 3.79% zinc, and the Big Bull or Tulsequah Chief which has (1986) 714,000 tones inferred ore grading 99.32 g silver, 3.08% gold per tonne and 1.6% lead and 8.0% zinc.

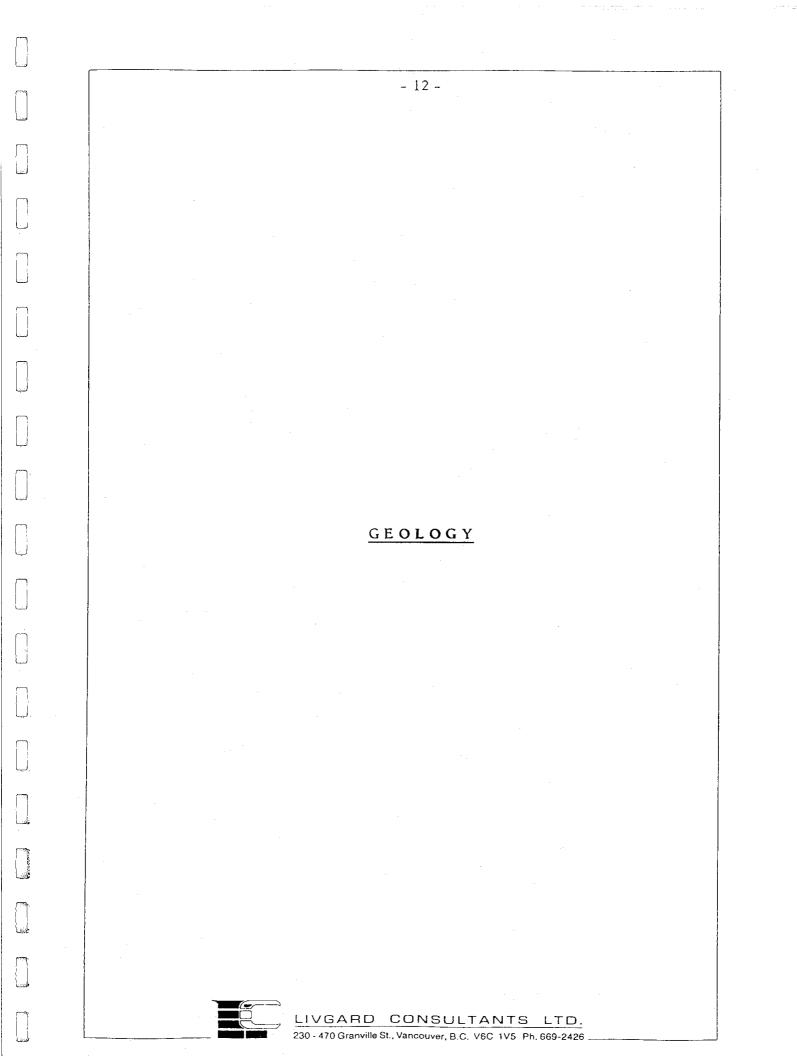


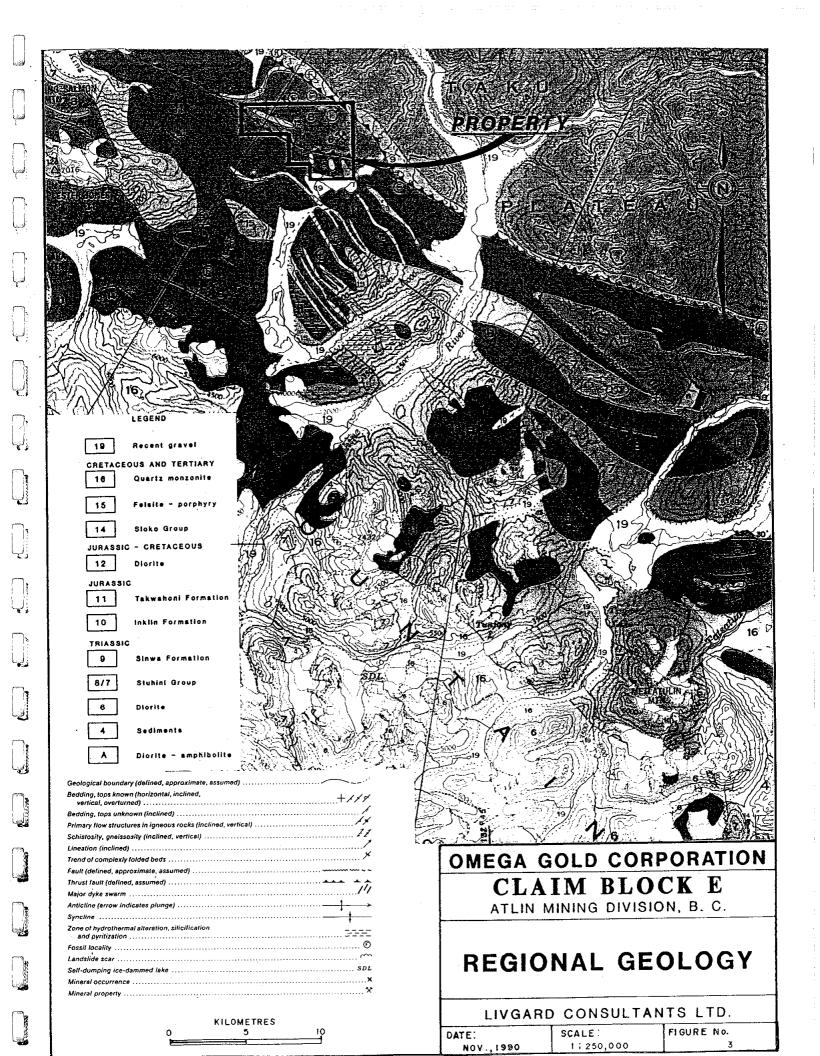
Mineralization adjoining the claim ground to the east was first located in 1930 by prospector George Bacon who staked the property for Cominco in 1947. Limited work was done by Cominco and the property was optioned to Hudson Bay Mining and Smelting in 1949. Minor diamond drilling was done in 1950. The ground subsequently lapsed and was restaked several times. A magnetometer survey was done by Newmont in 1964.

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In 1981-1983 mapping and surveying was done by Chevron Standard Ltd.







GEOLOGY

- 13 -

Regional

The property lies at the northern edge of the Stikine Arch in the Mesozoic sedimentary trough also called the Taku Embayment. To the northeast lies the Atlin Horst bounded by the Nahlin Fault, and to the southwest the main Coast Mountains. North of the property lies the King Salmon Thrust Fault which extends over some 200 kilometres in an east-southeast direction. It dips 45° northeast. This boundary region between the main Coast Range to the southwest and the plateaus to the northeast shows numerous small intrusions of foliated diorite – quartz diorite possibly from the mid-Triassic (Tahltanian Orogeny), diorite-granodiorite from the Upper Jurassic Tectonic activity and felsite – quartz feldspar porphyry from the Late Cretaceous Early Tertiary Tectonic activity. These intrusive events all have associated mineralization.

The Late Cretaceous - Early Tertiary intrusive rocks associated with the Sloko Group appear to be the most promising for mineral exploration, particularly where they intrude rocks of the Upper Triassic Stuhini Group. Mineralization may be found as multi-metallic massive sulphides and gold, as replacement pods and lenses in shears, in fractures and faulting in the intrusive or in nearby country rock and in breccia zones. The alteration consists of high silicification and/or carbonatization and albitization with disseminated pyrite and associated barite, antimony and arsenic. Occasionally skarns with rhodonite (rhodocrosite) and magnetite are mineralized and/or associated with the mineralization.

Many deposits of porphyry copper - molybdenum are found generally to the southwest of the base metal - silver - gold deposits.



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Property Geology

Rock Types

The claims cover most of a block of the Stuhini Group, King Salmon Formation consisting of Upper Triassic conglomerate, greywacke, siltstone, shale, limestone and lesser andesitic lava, tuff and volcanic breccia. The southwestern part of the claims cover rocks of the Lower and Middle Jurassic Labarge Group, Takwahoni Formation consisting of sediments from conglomerate to shale.

In the northeast corner of the claims, north of the King Salmon Thrust, is found limestone of the Upper Triassic Sinwa Formation.

Two "plugs" of Late Cretaceous - Early Tertiary quartz-feldspar porphyry intrude the southwest Takwahoni Formation and one "plug" the main Stuhini Group. These intrusions are thought to be genetically related to the Sloko Group of volcanics.

A "plug" of Upper Jurassic and/or Cretaceous augite diorite intrudes the Takwahoni Formation to the south of the claims, and another related biotite-hornblende quartz diorite "plug" intrudes the Stuhini Group rock immediately east of the claims.

Structure

The Stuhini Group rocks on the claims are bounded on the northeast and southwest by two arms of the King Salmon Thrust Fault which strike northwesterly and dip to the northeast at about 45°. Lesser faults and fractures are parallel to these thrust faults. A set of faults and attendant fractures strike perpendicular to the thrust faults and dip nearly vertically. The thrust faults are offset right laterally about 200 to 400 m. The King Salmon Formation bedding strikes north-south and dips steeply east.



Alteration

Extensive hydrothermal alteration is associated with the dioritic intrusive and with mineralization located just east of the claims. It consists generally of propylitic alteration and closer to mineralization pyrite, clay and bleaching is found.

The Cretaceous - Tertiary quartz-feldspar porphyry has, as is usual in the area, attendant silicification, carbonation, and pyritization. The Stuhini Group has been extensively fractured and gossans have developed in fracture areas.

Mineralization

The mineralization east of the claim ground is of two types. One consists of copper, silver, zinc with minor lead and gold in a 140 m wide breccia zone which extend over a length of 400 m next to a dioritic intrusive. The breccia occurs in the Stuhini Group rocks consisting of siltstone and shale where it is cut by a 30 m wide quartz-feldspar porphyry dyke (Cretaceous-Tertiary?). The second type of mineralization appears to be contact metamorphic in the Upper Triassic Sinaw Formation limestone northeast of the King Salmon Thrust Fault. The skarn has developed in the vicinity of the dioritic intrusive. It consists of magnetite, pyrrhotite, pyrite, chalcopyrite and galena with values in gold and silver where the limestone is silicified and altered to dolomite. Both types of mineralization may be found or may extend onto the claim ground.



BCDM STREAM SILT SAMPLING (see Appendix)

Two BCDM silt samples #3233/34 are pertinent to the property. The samples are slightly anomalous in mercury and gold. Extensive stream silt sampling together with prospecting should be the first exploration approach to the property.



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AIR PHOTO INTERPRETATION

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The two arms of the King Salmon Thrust Fault and the faults and fractures perpendicular to them (Ass. Rept. 11508) are clearly evident on the airphotos.

Two other strong fracture or fault systems strike northwesterly and eastwest. A particularly strong, northwesterly-striking zone cuts across the main quartz-feldspar intrusive into the Stuhini Group rocks and extend southeasterly across the south arm of the King Salmon Thrust and into the rocks of the Takwahoni Formation. This area is a good exploration target. Another favourable target area lies north of the west end of King Salmon Lake where northeast and northwest striking faults and fractures intersect, cut the thrust fault and extend into the Takwahoni Formation where is found two small plugs of quartz feldspar porphyry and a plug of diorite.

Respectfully submitted, Livgard Consultants Ltd.

Egil Livgard, P.Eng December 31, 1990



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APPENDIX



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REGIONAL STREAM SEDIMENT AND WATER DATA, BRITISH COLUMBIA 1987, BC RGS 20, GSC OF 1647, NTS 104K - TULSEQUAH

| | | | A | | | | | • | | | ~ - | n 17 | | | | | | | | | | | | | | | D | D |
|---------|------------------|--------------------------------|-------|------------|------------------|----------|-------------------|----------|--------------------|-------------|----------|-----------|--------------|-----------|-------------|--------------|--------|-----|-------|---|------|-------------|---------|--------|------|-------|-------------|---|
| | | ROCK | | | | | | | | | ST | RE | AM S | S E D | TWF | NT | | | | • | | | | | | | L Au | L |
| MAP | ID | TYPE | E ST | Zn | Cu | РЬ | Ni | Co | Åg | Mn | Ав | Мо | Fe | Hg | roi | σ | F | v | Cd | Sb | W | Ba | Sn | Au | Au-R | | 1 WT2 | 2 |
| 104K09 | 873183 | BSLT | 63 00 | 84 | 21 | 1 | 38 | 20 | 0.1 | 725 | 2 | 2 | 3.90 | 25 | 12.5 | 2.5 4 | 10 10 | 1 (| 0.1 | 0.2 | 4 | 500 | 1 | 2 | נ | .0.0 | 1 | |
| | 873184 | | | 82 | 26 | 1 | 46 | 18 | 0.1 | 600 | 5 | 2 | 4.00 | 40 | 9.0 | 2.6 4 | | | | 0.6 | 5 | 630 | 1 | 1 | 3 | 0.0 | 1 | |
| | 873185 | | | 165 | 30 | 7 | 49 | 20 | 0.1 | 995 | 12 | 2 | 4.40 | 70 | 9.4 | 3.3 4 | 160 7 | | | 0.9 | | 740 | 1 | 1 | | | 1 | |
| | 873186 | | | 90 | 44 | 1 | 24 | 18 | 0.1 | 900 | 8 | 2 | 3.35 | | 10.3 | 3.3 8 | | | | 0.7 | | 870 | 1 | 2 | | | 1 | |
| | 873187 873188 | | | 95 50 | 46 21 | 1 | 26 | 21 | 0.1 | 910 | 8 | 2 | 3.40 | 80 | 9.5 | 3.1 7 | | | | 0.8 | 2 1 | 900 | 1 | 4 1 | | | 1 10.0 1 | Ŧ |
| | 873189 | | | 105 | 41 | . 3 | 15 9 | 7 18 | 0.1 0.1 | 560 1050 | 5 21 | 2 2 | 2.70 4.30 | 25 150 | 7.5 8.0 | 4.7 6 | | | | 0.8 1.6 | | 120 | 3 1 | 1 | | | 1 | |
| | 873190 | | | 101 | 130 | 1 | 38 | 26 | 0.1 | 1320 | 15 | 1 | 4.30 | 135 | 7.3 | 1.0 2 | | | | 1.8 | | 450 | 3 | 5 | | | 1 | |
| 104K09 | 873191 | CGLM | 49 00 | 132 | 51 | ē | 37 | 14 | 0.1 | 760 | 14 | 3 | 3.30 | 70 | 6.2 | 3.6 4 | | | | 1.9 | | 960 | 1 | 9 | | | 1 10.0 | 1 |
| | 873192 | | | 106 | 16 | 6 | 15 | 8 | 0.1 | 655 | 55 | 2 | 2,45 | 95 | 5.0 | 9.2 8 | | | | 6.5 | | 750 | 2 | 3 | | | 1 | |
| | 873193 | | | 58 | 55 | 1 | 40 | 12 | 0.1 | 545 | 21 | 1 | 2.40 | 30 | 1.9 | 2.4 4 | | 1 (| 0.2 | 1.1 | 4 | 880 | 1 | 6 | Ţ | 0.0 | 1 | |
| | 873194 | | | 123 | 107 | 9 | 36 | 26 | 0.2 | 1000 | 45 | 1 | 5.00 | 260 | 9.6 | 0.9 3 | 300 16 | 2 (| 0.3 | 7.0 | | 510 | 2 | 1 | _ | | 1 . | |
| | 873195 | | | 155 | 374 | 51 | 44 | 35 | 0.6 | 835 | 560 | 3 | 8.00 | | 11.3 | | 530 12 | | 0.63 | A Real Transmission and a second second | 21 | | _1 | 39 | 50] | | 1 10.0 | 1 |
| | 873197 873198 | | | 174 | 143 | 23 | 37 | 21 | 0.2 | 805 | 160 | | 5,60 | | | 2.5 4 | | | 0.7 1 | | 61 | | 1 | 13 | | | 1 | |
| | 873199 | | | 61 | 42 15 | 3 2 | 13 10 | . 8 9 | .0.1. | 725 700 | 11 5 | | 2.15. | | | | | | | 1.0 | | 630. 930 | 3. 1 | | | | 1 | |
| | 873200 | | | 102 | 39 | 1 | 39 | 14 | 0.1 0.2 | 700 | 20 | 1 1 | 2.60 3.25 | 25 120 | 9.5 | 3.15 1.53 | | | | 0.9 | - | 770 | i | 1 | - | | 1 | |
| | 873202 | | | 160 | 54 | 18 | 32 | 11 | 0.2 | 580 | 30 | ŝ | 3.35 | | 5.1 | 2.9 5 | | | | 2.6 | 2 1 | | î | 63 | | | 1 10.0 | 1 |
| 104K09 | 873203 | CGLM | 49 00 | 101 | 40 | 1 | 18 | 15 | 0.1 | 820 | 18 | ĩ | 3.90 | 130 | | 1.4 3 | | | | 1.3 | | 520 | 1 | 10 | | | 1 | ~ |
| | 873204 | | | 85 | 54 | 1. | 25 | 13 | 0.1 | 625 | 14 | 1 | 3.40 | 140 | 5.3 | 1.8 2 | 280 9 | 8 (| 0.2 | 1.3 | - | 700 | 1 | 3 | 1 | 0.0 | 1 . | |
| | 873205 | | | 87 | 64 | 4 | 28 | 12 | 0.1 | 660 | 15 | 1 | 2.95 | 100 | 5.8 | 2.4 4 | 20 7 | | | 1.2 | | 820 | 1 | 14 | | | 1 | |
| | 873206 | | | 103 70 | 73 | 6 | 41 | 17 | 0.2 | 860 | 21 | 1 | 3.90 | 195 | 8.0 | | 360 9 | | | 2.2 | | 770 | 1 | 17 | | | 1 | |
| | 873208 | | | 93 | . 41 92 | 1 | 29. | 17 | $\frac{-0.1}{0.1}$ | | | | 2-90- | | | 1.72 | | | | 2.1 | | 470 720 | 2 | | | | 1 | |
| | 873209 | | | 108 | 63 | 3 | 61 | 16 | 0.1 | 875 | 9 18 | 2. | 4.80 | 95 180 | 7.6 6.2 | 1.2 2 | 880 7 | | | 2.0 | - | 790 | 1 | 3 | | | 1 | |
| 104K09 | 873210 | ANBI | 45 00 | 97 | 103 | ĩ | 30 | 20 | 0.2 | 1440 | 11 | ĩ | 4.50 | 110 | 6.9 | | 80 15 | | | 0.6 | | 840 | 1 | 8 | - | | 1 10.0 | 1 |
| | 873211 | | | 101 | 63 | 1 | 12 | 13 | 0.1 | 725 | | ī | 4.40 | 140 | 7.8 | | 210 16 | | | 0.8 | | 520 | 1 | 24 | | | 1 | - |
| | 873212 | | | 107 | 71 | 1 | 12 | 14 | 0.1 | 710 | 7 | l | 4.40 | | 10.7 | | .90 14 | | | 0.4 | | 490 | 1 | 9 | | | 1 | |
| | 873214 | | | 96 | 101 | 1 | 10 | 20 | 0.1 | 965 | 14 | 2 | 5.15 | 100 | 7.9 | | 280 16 | | | 0.4 | | 740 | 1 | 15 - | | | 1 | |
| | 873215 873216 | | | 87 83 | 44 65 | 2 | 13 9 | 11 15 | 0.1 0.1 | 465 | 12 | 1 | 3.60 | 130 | | 1.9 2 | | | | 0.6 | | 790 | 1 1 | 4 5 | | | 1 1 | |
| | 873217 | | | 115 | 104 | 50 | 15 | 15 | 0.1 | 950 830 | 15 70 | | 3.60 4.30 | 130 60 | .6.6 8.9 | 2.3 3 | | | | 0.7 4.3 | 2 1 | 950 | 1 | 16 | | | 1 | |
| | 873218 | | | 147 | 71 | 66 | 15 | 16 | 0.6 | 955 | 65 | 4 | 4.10 | 40 | 6.1 | 5.8 3 | • | | | 4.5 | 5 1 | | ī | - 8 | | | 1 | |
| | 873219 | | | 92 | 43 | 7 | 18 | 11 | 0.1 | 660 | 41 | ī | 3.25 | 60 | 3.9 | 3.4 3 | | | | 1.2 | 3 1 | | ī | 27 | 10 1 | | 1 10.0 | 1 |
| | 873220 | | | 120 | 46 | 21 | 39 | 11 | 0.1 | 585 | 42 | 2 | 3.65 | 30 | 2.8 | 2.9 4 | | 2 (| 0.6 | 1.4 | 4 13 | 100 | 1 | 19 | 1 | 0.0 | 1 | |
| | 873222 | | | 56 | 35 | 4 | 10 | 6 | 0.1 | 420 | 19 | 1 | 2.30 | 20 | 1.5 | | 100 5 | | | 0.4 | 4 12 | | 2 | 1 | | | 1 10.0 | 1 |
| | 873223 | | | 35 | 16 | 5 | .4 | 5 | 0.1 | 275 | 10 | 1 | 1.50 | 15 | 0.7 | 3.7 3 | | | | 0.2 | 3 13 | | 1 | 1 | | | 1 | |
| | 873224 873225 | | | 530 | 70 | 60 | 33 | 16 | 0.5 | 455 - | 65 | 6 | 3.70 | | 16.7 | 4.3 3 | | | | 1.5 | 2 | | 1 | 8 | | | 1 | |
| | 873226 | | | 147 148 | 100 46 | 35 19 | 19 38 | 8 11 | 0.2 | 350 | 16 | 9 | 2.70 | 30 | 4.9 | 4.3 4 | _ | | | 1.0 | | 950 | 3 | . 6 | | | 1 | |
| | 873227 | | | 85 | 21 | 2 | 17 | 5 | 0.2 0.1 | 265 150 | 14 6 | 6 1 | 3.10 1.80 | 100 50 | 8.3 9.6 | 3.4 6 | | | | 1.6 0.6 | 2 1 | 820 | 1 1 | 4 8 | | | 1 1 | |
| | 873228 | | | 96 | 34 | 6 | 19 | 10 | 0.2 | 450 | 33 | î | 2.70 | | 13.6 | 4.3 3 | | | | 1.2 | | 840 | ì | 8 | | | 1 | |
| 104K10 | 873229 | CGLM | 49 00 | 108 | 52 | 10 | 29 | 20 | 0.1 | 890 | 33 | ī | 3.50 | 110 | 8.4 | 3.8 6 | | | | 1.4 | | 760 | 2 | ĩ | | | ī | |
| | 873231 | | | 265 | 309 | 38 | 21 | | 1.0 | 685 | 110 | | 6.05 | 40 | | 4.6 3 | | | | 3.0 | | 950 | ī | 69 | | | ī 10.0 | 1 |
| _104K10 | | | | 290 | 76 | 29 | 41 | 13 | 0.4 | 650 | 65 | 3 | 4.00 | 55 | 7.4 | 4.3 4 | 130 9 | 7 1 | | 3.0 | 3 1 | | _1 | 11 | 1 | 0.0 | 1 | Ę |
| 104K10 | | Normal Procession of the party | | 132 | 53 | | A Real Providence | 15 | 0.1 | 820 | 33_ | <u> </u> | _3_70_ | _155_ | 7.2 | 2.0_3 | | | | 1.2 | | 970 | | 1 | | | 1 10.0 | 1 |
| | 873234 | | | 126 | 51 | - 7 | 33 | 14 | 0.1 | 755 | 29 | <u> </u> | 3.60 | 180 | | 2.1 3 | | | | 1.2 | | 970 | 1 | 8 | | | 1 | ž |
| | 873235 | | | 70 | 70 34 | 10 2 | 45 25 | 14 10 | 0.2 | 500 530 | 15 10 | 、.1 、1 | 2.70 2.40 | | 13.9 2.9 | 1.7 4 | | - | | 1.0 0.4 | | 860 950 | 1 1 | 4 | | | 1 1 | |
| | 873237 | | | 84 | 39 | 3 | | | 0.2 | 550 | | ·i | 2.40 | 60 | | 1.5 3 | | | | 0.6 | - | 800 | ì | 4 | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | | | | | - | - | · · • | | |

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F Greater PAGE 47

| | RUN DATE: 10/22/70 RUN TIME: 13:32:03 | | M EOLOGICAL SURVEY BRAI MINISTRY OF ENERGY, | MINFILE / DC ASTER REPORT NCH - MINERAL REI MINES AND PETROI | SOURCES DIVISION LEUM RESOURCES | PAGE: REPORT | : RGEN4 | 1000 |
|----|---|---|---|---|---|--|--------------|------------|
| Ų | NINFILE NUMBER: | <u>104K 011</u> | | N | ATIONAL MINERAL INVI | ENTORY: 104K10 Cu2 | | |
| | HAME(S): | BACON AND DAISY GRO BACON, DAISY, KS BWH, BARB 1, BACON, DAISY, KS | U <u>PS</u> , 8.W.M., BARB 1, | | | | | ÷ |
| Ċ. | LONGITUDE: | 104K10Ŵ 58 44 27 132 54 03 1800 Metres Within 500M | of King Salmon Lake, | on the south si | UTI Noi Ei | VISION: Atlin 4 ZONE: 08 RTHING: 6512900 ASTING: 621500 | | |
| | COMMODITIES: | Copper Antimony | Silver | Zinc | Sold | Lead | | |
| | MINERALS SIGNIFICANT: | Chalcopyrite Magnetite | Sphalerite | Pyrrhotite | Stibnite | Pyrite | | |
| | ASSOCIATED: ALTERATION: COMMENTS: | Quartz Pyrite Chlorite | Limonite Foidote | Tourmaline Hematite stone, north of 1 | Malachite the King Salmon | Jarosite | | |
| | ALTERATION TYPE: MINERALIZATION AGE: | Skarn-mineralization thrust fault. Pyrite Unknown | Silicific'n | Oxidation | Propylitic | Carbonate | | |
| | DEPOSIT CHARACTER: CLASSIFICATION: DIMENSION: COMMENTS: | Vein Epigenetic 0396 X 0140 X 0000 Deposit character i | Breccia Hydrothermal Metres STRIKE/DIP: s also disseminated. | Pipe Igneous-contact 000 | Massive TREND/PLUNSE: | | | |
| | HOST ROCK Dominant Host Rock: | Metasedimentary | | | | | | |
| | STRATIGRAPHIC AGE Upper Triassic Upper Triassic Juro-Cretaceous Tertiary-Cretaceous | <u>GROUP</u> Stuhini Undefined Group | FORMATIO King Sal Sinwa | | <u>IGNEOUS/METAI</u> Coast Pluton Unnamed/Unkni | <u>MORPHIC/OTHER</u> ic Complex own Informal | | |
| | LITHOLOGY: | Breccia Silistone Shale Andesitic Volcanic Mudstone Quartz Ciorite Quartz Feldspar Por Quartz Feldspar Por | ођугу | | | | | |
| | LOCT DOCK COMMENTER | Gossan | | f Cract Blutonia | - Tartiary | | | |
| | GEOLOGICAL SETTING | Juro-Cret. quartz d Cretaceous feldspar | -porphyry is related | to Sloke Group() | S. Tercialy- GSC Map 1262A), | | | |
| | TECTONIC BELT: | Stikinia | Cache Cri RELATION | PH BHP: Syn-minera Post-minera | YSIDGRAPHIC AREA: T lization GRADE: alization | sku Plateau | | |
| | RESERVES ORE ZONE: | Rum | | | | | | |
| | | CATEGORY: Best Assa; | 4 | YEAR: 1 | 771 | MINFILE NUMBER: | 10 <u>4K</u> | <u>011</u> |

MINFILE / pc MASTER REPORT GEOLOGICAL SURVEY BRANCH - MINERAL RESOURCES DIVISION MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

SAMPLE TYPE: Grab

| | CONMODITY | GRADE | |
|------------|---------------------------|------------------|-----------------|
| | Silver | 127.0000 | Grams per tonne |
| | Sold | 9,0400 | Grams per tonne |
| | Copper | 1.1000 | Per cent |
| | Lead | 0.2000 | Per cent |
| | Zinc | | Per cent |
| COMMENTS: | Sample from breccia pipe, | breccia fragment | 3. |
| REFERENCE: | Assessment Report 3208 | - | |

CAPSULE GEOLOGY

The area is underlain by the Upper Triassic Stuhini Group, King Salmon Formation which is comprised of a thick-bedded, mixed assemblage of sediments, minor andesitic volcanics, volcaniclastics and limestone. To the northeast, the Upper Triassic Sinwa limestone is found along the northeast dipping King Salmon thrust fault. These rocks are intruded by intermediate composition Jurassic and/or Cretaceous plutons and younger porphyritic dykes, possible Tertiary in age in age

The structure in the area is dominated by the northwest trending, northeast dipping King Salmon thrust fault and associated smaller faults. Perpendicular to these faults is another set that trend

northeast, which offset the King Salmon thrust fault. On the property the King Salmon Formation rocks are mainly dark green andesitic or tuffaceous volcanics with disseminated pyrite and chloritic siltstone and argillite which also contain disseminated pyrite. The rocks are highly fractured and alteration consists mainly of minor silicification, pyritization with occasional epidote stripners. Minor crosscutting quartz stripners are mineralized with stringers. Minor crosscutting quartz stringers are mineralized with chalcopyrite.

A large gossanous zone adjacent to a small quartz diorite stock, that cuts the Upper Triassic volcanics and sediments, is crosscut by that cuts the Upper Irlassic volcanics and sediments, is crosscut by tabular and irregular masses of pink quartz-feldspar porphyry. The main mineralization consists of a breccia pipe which is irregular in outline and is about 396 metres long and 140 metres wide. The breccia is mainly feldspar porphyry fragments in a matrix of quartz, carbonate, pyrite, chalcopyrite, and pyrrhotite. The breccia pipe shows large euhedral pyrite and chalcopyrite in a vuggy quartz matrix. Chalcopyrite is the most abundant sulphide and usually forms massive, irregular fragments or may be disseminated in calcite and quartz gangue. Sphalerite, pyrrhotite, and stibuite occurs occasionally with calcite in late veins. A few euhedral grains of magnetite are

pyrite and show exsolution textures. Stibulite occur in the chalco-pyrite and show exsolution textures. Stibulite occurs occasionally with calcite in late veins. A few euhedral grains of magnetite are also present. The pyrite is weathered and forms limonite, hematite, and jarosite. Fractures also show coatings of malachite. Selected samples from the breccia, taken in 1971, assayed 0.04 grams per tonne gold, 127.0 grams per tonne silver, 1.10 per cent copper, 1.2 per cent zinc, 0.2 per cent lead, and trace gold, 265 grams per tonne silver, 19.7 per cent copper, 2.3 per cent zinc, 0.003 per cent lead, and less than 0.01 per cent antimony (Assessment Report 3208). The breccia norurs in the Kice Scients

The breccia occurs in the King Salmon Formation siltstone and shale. The quartz-feldspar porphyry dyke which cuts this zone, is about 30 metres wide and exhibits strong propylitic alteration and in places strong pervasive silicification. Traces of tourmaline are also reported. Magnetice-skarn mineralization occurs within the Sinwa Formation limestone porth of the King Salmon thrust fault (refer to Barb

104K 1071.

818L10GRAPHY

EMPP AR 1980-75,76 EMPR GEM 1971-51 EMPR 4SS RPT *586, *1171, *2208, *2541, *11107, *11508, *12144 EMPR EXPL 1201-59; *1982-545 GSC MEM *362, p. 55 GSC MAP 6-1260; 12624

MINFILE NUMBER: 104K 011

| RUN DATE: 10/22/90 RUN TIME: 13:32:03 | | GEOLOGICAL SURVEY MINISTRY OF ENE | | PESOURCES DIVISION ROLEUM RESOURCES | PAGE: 16 REPORT: RGEN4000 |
|--|---|---------------------------------------|---|--|--|
| MINFILE NUMBER: NAME(S): | <u>104K 107</u> Barb, Barb 3-4, Ks | | | NATIONAL MINERAL INV | ENTORY: 104K10 Cu2 |
| NTS MAP: LATITUDE: LONGITUDE: ELEVATION: LOCATION ACCURACY: | 1220 Metres | ng Salmon Lake, | along the north si | TU No B | VISION: Atlin M ZONE: 08 RTHING: 6513950 ASTING: 621800 |
| COMMODITIES: | Gold | Argillite | Antimony | Silver | |
| MINERALS SIGNIFICANT: ASSOCIATED: ALTERATION: | Magnetite Calcite Calcite | Chalcopyrite Quartz Epidote | Galena Diopside | Pyrite Tremolite | Goethite |
| ALTERATION TYPE: MINERALIZATION AGE: | Hematite Skarn | Silicific'n | Oxidation | 110901100 | ootinto |
| DEPOSIT CHARACTER: CLASSIFICATION: | Vein Igneous-contact | Podiform Skarn | Massive | | |
| HOST ROCK DOMINANT HOST ROCK: | Sedimentary | | 1 | | |
| STRATIGRAPHIC AGE Jpper Triassic | GROUP | | TION | IGNEOUS/METAN | MORPHIC/OTHER |
| Jpper Triassic Jpper Triassic Juro-Cretaceous Tertiary-Cretaceous | Undefined Group Stuhini | Sinwa King | a Salmon | Coast Plutoni Unnamed/Unkno | ic Complex own Informal |
| LITHOLOGY: | Limestone Magnetite Skarn Epidote Diopside Ca Quartz Diorite Porphyry Dyke Andesitic Volcanic Sediment/Sedimentar Volcaniclastic | | | | |
| HOST ROCK COMMENTS: | Quartz diorite may porphyry dykes are | be part of Coast likely related to | Plutonics and Ter Sloko Group (GSC | tiary-Cretaceous Map 1262A). | |
| EOLOGICAL SETTING TECTONIC BELT: TERRANE: METANORPHIC TYPE: | Stikinia | Cache 1 RELAT | : Creek IONSHIP: Syn-mine | PHYSIOGRAPHIC AREA: Te ralization SRADE: eralization | ku Plateau |
| ESERVES | | | | | |
| ORE ZONE: | | | | | |
| | CATEGORY: Best Assa SAMPLE TYPE: Grab COMMODITY Silver | GRAD | YEAR: E .1000 Grams per | | |
| | Argillite Gold Antimeny Şample from magnetji | 0 0 0 | .0070 Per cent .7000 Grams per 1 .0010 Per cent | | |

MINEILE NUMBER: <u>104K_107</u>

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RUN DATE: 10/22/90 RUN TIME: 13:32:03

NINFILE / pc MASTER REPORT GEOLOGICAL SURVEY BRANCH - MINERAL RESOURCES DIVISION MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

CAPSULE GEOLOGY

The area is underlain by the Upper Triassic Stuhini Group, King Salmon Formation which is comprised of a mixed assemblage of sediments, volcanics, volcaniclastics and minor limestone. On the northeast part of the property, the Upper Triassic Sinwa Formation limestone is found along the northeast dipping King Salmon thrust fault. These rocks are intruded by intermediate composition Jurassic and/or Cretaceous plutons which may be part of the Coast Plutonic Complex, and younger porphyritic dykes, possibly Tertiary in age. Chalcopyrite mineralization occurs within a breccia zone in the King Salmon Formation rocks adjacent to a small quartz diorite stock. This mineralization hosts copper and silver values as described in S.W.M. (104K 011).

Inis mineralization nosts copper and silver values as described in S.W.M. (104K 011). Mineralization also occurs within the Upper Triassic Sinwa Forma-tion limestone, in the northwest part of the property, which is comp-prised of thick-bedded, white to grey recrystallized limestone. With-in it are narrow bands of dark grey, carbonaceous limestone and narrow chert beds. Beds of interformational breccia are less than 0.5 metres in thickness. At or near the quartz diorite intrusive contacts, the Sinwa limestone is partly silicified or altered to a brown weathering delomite. In places, a weak pale green skarn, containing epidote, diopside, and calcite, with minor disseminated and lesser veinlets of pyrite, have developed. Massive magnetite lenses, up to 25 metres, have developed in the limestone near the intrusive contact. Within the magnetite zones, fine needles of black and rarely white tremolite are common, as well as, blebs of fine crystalline pyrite and trace chalcopyrite. Some zones are totally altered to goethite and hematite. Magnetite stringers are present within the silicified limestone near the King Salmon thrust fault. Trace galena and chalcopyrite are also present in the skarn type rocks. In 1980, rock samples of the silicified limestone with magnetite carried up to 0.7 grams per tonne gold, as well as, associated arsenic and antimony (Assessment Report 9541).

BIBLIOGRAPHY

EMPR AR 1950-75,76 EMPR GEM 1971-51 EMPR ASS RPT 586, 1171, 3208, *9541, *11107, *11508, 12144 EMPR EXPL 1981-59; *1983-545 GSC MEM 362, p. 55 GSC MAP 6-1960; 1262A

DATE CODED: 880519 DATE REVISED:

CODED BY: LLC REVISED BY:

FIELD CHECK: N FIELD CHECK:

MINFILE NUMBER: 104K 107

| VOU LINE, TOPOTADO | RUN | DATE: | 10/22/90 |
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| | RUN | TIME: | 13:32:03 |

MINFILE / PC MASTER REPORT GEOLOGICAL SURVEY BRANCH - MINERAL RESOURCES DIVISION MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES

PAGE: 3 REPORT: RGEN4000

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DATE CODED: 850724 DATE REVISED: 880517

CCDED BY: GSB REVISED BY: LLC

FIELD CHECK: N FIELD CHECK: N

MINFILE NUMBER: 104K 011

REFERENCES

G.S.C. Memoir 362 G.S.C. Map 1262A, Tulsequah

EMPR Assessment Work Report #11508.

Assessment Report Geological and Chemical Survey, Barb Claims 1, 3, by Godfrey Walton, Chevron Canada Res. Ltd., September 1983.

The B.C. Source Book - 1966, University of Victoria.

Aerial Photos: B.C. 5614, 274-278 Fed. Govt. A11446, 320-323



CERTIFICATE

I, EGIL LIVGARD, of 1990 King Albert Avenue, Coquitlam, B.C., DO HEREBY CERTIFY:

- I am a Consulting Geological Engineer, practicing from #635 470 Granville Street, Street, Vancouver, B.C.
- 2. I am a graduate of the University of British Columbia, with a B.Sc., 1960 in Geological Sciences.
- 3. I am a registered member in good standing of the Association of Professional Engineers of the Province of British Columbia.
- 4. I have practised my profession for over 30 years.
- 5. I am a Director of Omega Gold Corporation and own shares in the Company.
- 6. This report dated December 31, 1990 is based on the references as listed in the Appendix. The writer has not examined the property on the ground.

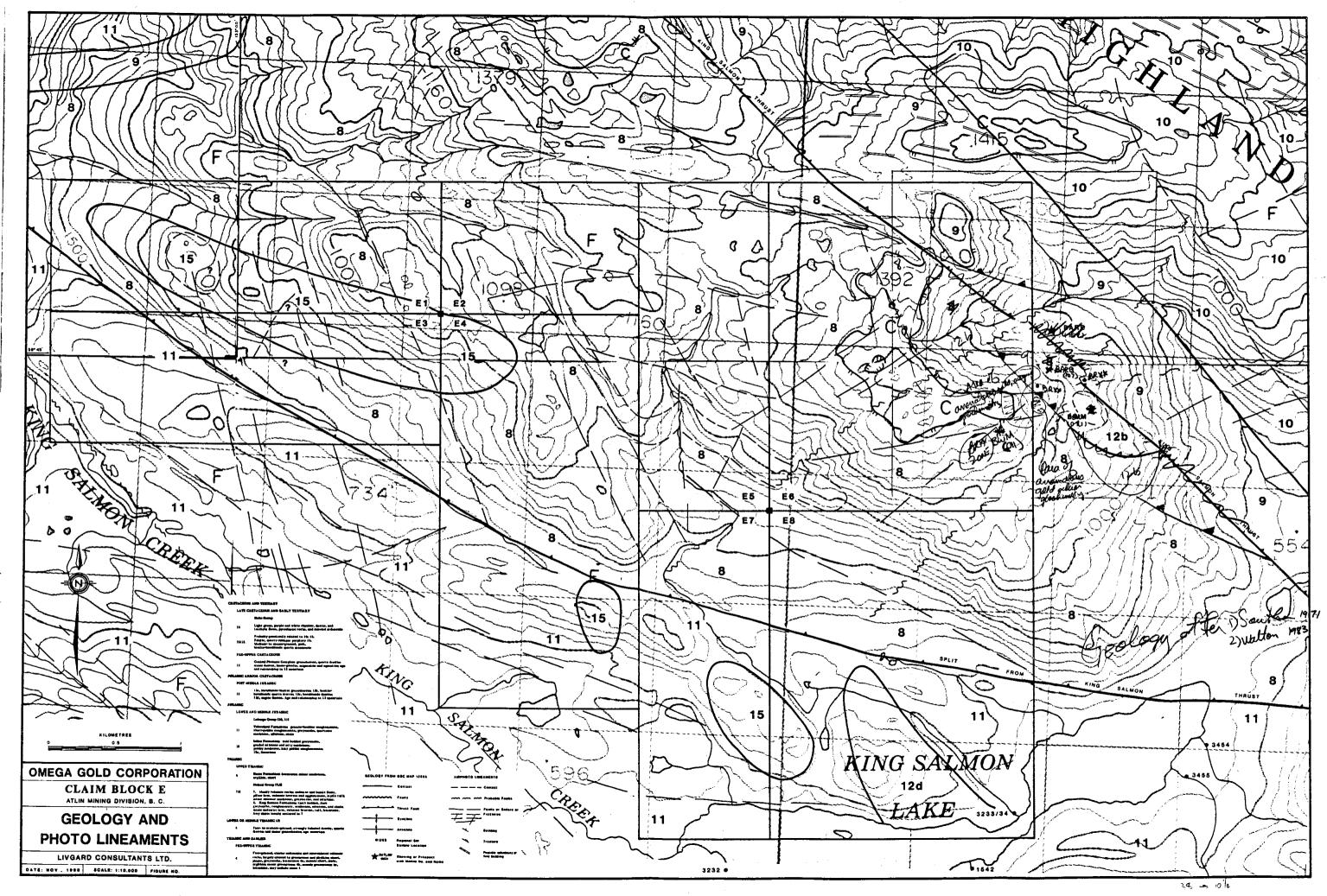
DATED AT VANCOUVER, BRITISH COLUMBIA THIS 31ST DAY OF DECEMBER, 1990.



LIVGARD CONSULTANTS LTD. 230 - 470 Granville St., Vancouver, B.C. V6C 1V5 Ph. 669-2426

ivgard, B.Sc.

P.Eng.



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APPENDIX B

ANALYTICAL PROCEDURES AND ASSAY REPORTS

GC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER.B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717 BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

October 19, 1990

TO: Mr. Bernie Dewonck OREQUEST CONSULTANTS LTD. 306 - 595 Howe Street Vancouver, BC V6C 2T5

FROM: VANGEOCHEM LAB LIMITED 1630 Pandora Street Vancouver, BC V5L 1L6

SUBJECT: Analytical procedure used to determine gold by fire assay method and detect by atomic absorption spectrophotometry in geological samples.

1. Method of Sample Preparation

- (a) Geochemical soil, silt or rock samples were received at the laboratory in high wet-strength, 4" x 6", Kraft paper bags. Rock samples would be received in poly ore bags.
 - (b) Dried soil and silt samples were sifted by hand using an 8" diameter, 80-mesh, stainless steel sieve. The plus 80-mesh fraction was rejected. The minus 80-mesh fraction was transferred into a new bag for subsequent analyses.
 - (c) Dried rock samples were crushed using a jaw crusher and pulverized to 100-mesh or finer by using a disc mill. The pulverized samples were then put in a new bag for subsequent analyses.

2. <u>Method of Extraction</u>

- (a) 20.0 to 30.0 grams of the pulp samples were used. Samples were weighed out using a top-loading balance and deposited into individual fusion pots.
- (b) A flux of litharge, soda ash, silica, borax, and, either flour or potassium nitrite is added. The samples are then fused at 1900 degrees Farenhiet to form a lead "button".

IGC VANGEOCHEM LAB LIMITED

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(c) The gold is extracted by cupellation and parted with diluted nitric acid.

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(d) The gold beads are retained for subsequent measurement.

3. <u>Method of Detection</u>

- (a) The gold beads are dissolved by boiling with concentrated aqua regia solution in hot water bath.
- (b) The detection of gold was performed with a Techtron model AA5 Atomic Absorption Spectrophotometer with a gold hollow cathode lamp. The results were read out on a strip chart recorder. The gold values, in parts per billion, were calculated by comparing them with a set of known gold standards.

4. Analysts

The analyses were supervised or determined by Mr. Raymond Chan or Mr. Conway Chun and his laboratory staff.

hrit h

Raymond Chan VANGEOCHEM LAB LIMITED

T S L LABORATORIES

DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED

2 - 302 - 48th STREET, SASKATOON, SASKATCHEWAN S7K 6A4 (306) 931-1033 FAX: (306) 242-4717

| OreQuest Consu 306 - 595 Howe Vancouver, B.C V6C 2T5 | Street | Jan.9/90 |
|---|--|--|
| | | |
| 1 - SAMPLE PR Rock and | EPARATION PROCEDURES Core | |
| | sample is crushed, riffled and s pulverized to -150 mesh. | l the subsequent |
| Soils and - Sample | Silts is dried and sieved to -80 mes | sh. |
| Geochem G A d | Y PROCEDURES old (Au ppb) - .30g subsample is fused, cupel ore' bead is dissolved in aqua s then analyzed on the Atomic | rega. The solution |
| A s a | d (Au oz/ton) - 29.16g subsample is fused, cu equent dore' bead is parted wi cid solution. The gold obtain I water, annealed and weighed | th a dilute nitric ned is rinsed with |
| A f | lver (Ag ppm) - 1g subsample is digested with or 1 1/2 to 2 hours, then dilu he solutions are then run on t | ited with DI H20. |
| A H W | rer (Ag oz/ton) - 2.00g sample is digested with NO3 for 1 hour in a covered be with 1:1 HCL. The solution is bsorption. | eaker; diluted to 100mls |
| 4 – BASE ME Geochem – | | liluted with DI H20. |
| Assay - | A 0.500g sample is taken to HCl plus 5mls HN03, then red HN03 and diluted to 100mls w is run on the Atomic Absorpt | lissolved with 5mls with DI H20. The solution |



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T S L LABORATORIES

DIVISION OF BURGENER TECHNICAL ENTERPRISES LIMITED 2 - 302 - 48th STREET, SASKATOON, SASKATCHEWAN S7K 6A4 (306) 931-1033 FAX: (306) 242-4717

Page 2.

5.

ICAP Geochemical Analysis -A 1g subsample is digested with 5mls of aqua rega for 1 1/2 to 2 hours, then diluted with DI H2O. The solutions are then run on the ICAP.

6. Heavy Mineral Concentrates -

The sample is initially wet sieved through -1700 micron, then placed on a shaker table. A heavy liquid separation is performed, Methylene Iodide, (S.G. - 3.3); diluted to give a S.G. of 2.96. The heavies were then analyzed for Au by Fire Assay plus an ICAP Scan.

Yours truly,

Bernie Dunn

Bernie Dunn BD/vh

C VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

PAGE 1 OF 2

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| $\bigcap_{i=1}^{n}$ | REPORT NUMBER: 910152 GA | JOB NUMBER: 910152 | GOLD FIELDS CANE | DIAN KINING LTD. |
|---------------------|---------------------------------------|---------------------|--------------------------|------------------|
| التجير ا | SAMPLE # | Au | | |
| | D | ppb | | |
| | RC 10339 RC 10340 | nd | | |
| ل_) | RC 10340 RC 10341 | nd | | |
| | RC 10342 | 40 | | |
| | RC 10343 | nd | | |
| - | RC 10344 | 190 | | |
| | RC 10345 | 20 | | |
| L | RC 10346 | 20 | | · . |
| | RC 10347 | nđ | | |
| | RC 10348 | 30 | | |
| \cup | RC 10349 | nd | | |
| | RC 10350 | nđ | | |
| | RC 10558 | 10 | | |
| $(_)$ | RC 10559 | nđ | | |
| | RC 10560 | nd | | |
| | RC 10561 | • • - | | |
| | RC 10561 RC 10562 | nd 10 | | |
| \sim | RC 10563 | 10 | | |
| | RC 10564 | 10 | | |
| لننا | RC 10565 | 20 | | |
| \cap | RC 10566 | nđ | | |
| | RC 10567 | nd 20 | | |
| <u> </u> | RC 10626 | 10 | • | |
| $ \cap $ | RC 10627 | 10 | | |
| | RC 10628 | 40 | | |
| | RC 10629 | 30 | | |
| | RC 10630 | 30 | | |
| <u> </u> | RC 10631 | 30 | | |
| <u></u> | RC 10632 RC 10633 | 30 30 | | |
| | NO 10000 | 50 | | |
| | RC 10634 | 30 | | |
| \bigcap | RC 10675 | 10 | | |
| | RC 10696 | 110 | | |
| لاتت | RC 10705 | 270 | | |
| ایت . | RC 10706 | 100 | | |
| | RC 10707 | 50 | | |
| | RC 10779 | 10 | | |
| Π | RC 10780 | 10 | | |
| | RC_10781 | 10 | | |
| | DETECTION LIMIT nd = none detected | 5 = not analysed | is = insufficient sample | |
| | | | | |

VGC VANGEOCHEM LAB LIMITED

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GOLD FIRLDS CANADIAN MINING LTD.

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

PAGE 2 OF 2

| REFORT NUMBER: 910152 GA | JOB NUMBER: 910152 |
|--------------------------|--------------------|
| SAMPLE # | Au |
| | ppb |
| RC 10782 | 830 |
| RC 10783 | 30 |
| RC 10784 | 90 |
| RC 10785 | 80 |
| RC 10790 | 160 |
| RC 10821 | 30 |

DETECTION LIMIT nd = none detected -- = not analysed

VGC VANGEOCHEM LAB LIMITED

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| SAMPLE # D | Ag | | | |
|------------------------------|----|---|-----|--|
| • | | | · . | |
| RC 10790 2.5 RC 10821 2.5 | | 2 | | |

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DETECTION LIMIT 0.01 1 Troy oz/short ton = 34.28 ppm 1 ppm = 0.0001 V ppm = parts per million < = less than

March

signed:

GC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

| REPORT BUMBER: 910152 AB | JOB NUMBER: 910152 | GOLD FIELDS CANADIAN MINING LTD. | PAGE 1 OF 1 |
|--------------------------|--------------------|----------------------------------|-------------|
| SAMPLE # | Cu % | | |
| RC 10696 | | | |
| RC 10784 | 2.52 1.78 | | |
| RC 10790 | 6.45 | | |
| RC 10821 | 7.66 | | |
| | | | |
| | | | - |
| | | | • |
| | | | |
| | | | |

DETECTION LIMIT 0.01 1 Troy oz/short ton = 34.28 ppm 1 ppm = 0.0001 t ppm = parts per million < = less than

signed: M2

ICAP GEOCHEMICAL ANALYSIS

1630 Pandora Street, Vancouver, B.C. V5L 1L6 Ph: (604)251-5656 Fax: (604)254-5717

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A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO₃ to H₂O at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

| REPORT #: 910152 PA | GOLD FIELDS CANADIAN MINING PROJECT: # RC-BC-OB | | | | | | | | DATE IN: AUG 01 1991 DATE OUT: AUGUST 09 1991 ATTENTION: GOLD FIELDS CDN MINING | | | | | | | PAGE 1 OF 2 | | | | | | | | | | |
|---|---|--------------------------------------|---|-----------------------------------|--------------------------------------|---|--------------------------------------|--|---|---|-------------------------------------|--------------------------------------|--|---------------------------------------|---|----------------------------|--|---|--------------------------------------|---------------------------------------|--|--|-------------------------------------|---|---|--------------------------------|
| Sample Name | Ag | Al X | As | ₹Au | Ba | Bi | Ca Z | Cd | Co | Ûr | Cu | Fe | K X | Mg X | Mn | Ко | Na Z | Ni | ዋ አ | Pb | 5b | Sn | Sr | U | ų. | Zn ppm |
| RC 10339 RC 10340 RC 10341 RC 10342 RC 10343 | рра 0.2 0.2 0.2 0.1 0.1 | 0.50 0.54 0.08 1.06 1.04 | ppm 699 515 <3 307 227 | ррb <5 <5 <5 40 <5 | ppm 249 238 23 51 123 | ppn (3 (3 (3 (3) | >10 >10 0.79 >10 0.58 | ppm <0.1 <0.1 1.1 <0.1 <0.1 | ррм 10 11 73 35 2 | ppm {i {i {i {i {i {1} {1} {1} {1} {1} {1} | ррм 52 131 57 208 96 | 7.70 4.58 >10 >10 4.74 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.58 0.05 <0.01 0.26 0.10 | pp∉ 334& 2345 245 2618 284 | рра | <pre>{0.01 {0.01 0.29 {0.01 0.10</pre> | ₽₽編 く1 く1 く1 く1 く1 く1 | 0.03 0.05 0.04 0.07 0.12 | ppn 6 72 9 ∢2 | ppa {2 {2 {2 {2 {2 {2} {2} {2} {2} {2} | pp n {2 {2 {2 {2 {2 {2} {2} {2} {2} | ppa 245 293 25 91 15 | ρpa <5 <5 <5 <5 <5 <5 | рра (3 (3 (3 (3 (3 (3 | 90 505 113 573 46 |
| RC 10344 RC 10345 RC 10346 RC 10347 RC 10348 | 1.1 0.3 0.4 <0.1 1.1 | 1.25 1.97 2.13 3.55 0.98 | 8 26 <3 <3 <3 | 190 20 20 (5 30 | 61 152 58 52 40 | <3 <3 <3 <3 <3 | 0.30 1.13 2.24 >10 0.52 | <0.1 <0.1 0.7 0.2 <0.1 | 8 17 36 19 20 | (1 (1 (1 (1 | 299 175 34 52 280 | 4.64 9.25 7.99 4.64 >10 | <0.01 <0.01 <0.01 <0.01 <0.01 | 0.12 0.33 0.35 0.26 0.09 | 202 461 484 799 169 | <1 <1 <1 <1 26 | 0.12 0.14 0.23 0.37 0.09 | <1 <1 <1 <1 <1 | 0.11 0.13 0.15 0.09 0.08 | <2 <2 <2 <2 <2 <2 9 | <2 <2 <2 <2 <2 <2 | <2 <2 <2 <2 <2 <2 | 15 37 165 281 17 | <5 <5 <5 <5 <5 | <3 <3 <3 <3 <3 <3 | 44 53 73 102 44 |
| RC 10349 RC 10350 RC 10558 RC 10559 RC 10550 | 0.1 0.2 <0.1 <0.1 <0.1 | 5.07 3.21 0.99 0.70 0.31 | <3 <3 <3 <3 <3 | <5 <5 10 <5 <5 | 41 56 675 272 202 | <3 <3 <3 8 <3 | >10 3.00 3.96 4.25 >10 | 0.2 1.6 0.5 <0.1 <0.1 | 23 32 13 13 5 | <1 <1 <1 <1 <1 | 98 123 24 19 13 | 7.24 6.73 4.14 4.11 2.46 | <0.01 <0.01 <0.01 <0.01 <0.01 | 0.33 0.20 0.15 0.24 0.13 | 1650 603 914 962 1306 | <1 31 <1 <1 <1 | 0.52 0.42 0.11 0.09 0.03 | <1 <1 <1 <1 <1 | 0.11 0.12 0.11 0.11 0.06 | <2 <2 8 2 Б | <2 <2 <2 <2 <2 <2 | <2 <2 <2 <2 <2 <2 <2 | 199 156 110 232 1025 | <5 <5 <5 <5 <5 | <3 <3 <3 <3 <3 | 79 208 68 70 40 |
| RC 10561 RC 10562 RC 10563 RC 10564 RC 10565 | 0.1 0.1 0.1 0.1 0.2 | 1.38 1.25 2.88 0.83 1.80 | <3 <3 <3 12 <3 | <5 10 10 10 20 | 242 226 337 183 149 | <3 <3 <3 <3 <3 | >10 2.30 1.01 2.85 2.28 | <0.1 <0.1 0.2 0.2 <0.1 | 15 13 21 18 20 | (1 (1 (1 (1 | 37 59 56 54 84 | 5.27 4.72 8.05 6.28 6.27 | <0.01 <0.01 <0.01 <0.01 <0.01 | 0.20 0.18 0.37 0.29 0.32 | 2746 756 1118 1008 821 | <1 <1 <1 <1 <1 | 0.06 0.15 0.11 0.10 0.11 | <1 <1 <1 <1 <1 | 0.11 0.11 0.13 0.10 0.12 | <2 <2 <2 10 <2 | <2 <2 <2 <2 <2 <2 | <2 <2 <2 <2 <2 <2 | 179 80 35 142 84 | <5 <5 <5 <5 <5 | <3 <3 <3 <3 | 97 78 128 97 116 |
| RC 10566 RC 10567 RC 10626 RC 10627 RC 10628 | 0.1 0.2 0.1 <0.1 <0.1 | 1.38 2.59 1.14 1.66 2.32 | <pre><3 <3 <</pre> | <5 20 10 10 40 | 219 120 810 418 340 | <pre><3 <3 <3 <3 <3 <3 <3 </pre> | 3.40 6.12 4.46 2.93 2.54 | 0.5 0.7 0.8 0.9 <0.1 | 7 27 14 15 16 | (1 (1 (1 (1 | 12 134 41 19 19 | 4.46 6.69 6.22 5.84 5.47 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.16 0.46 0.25 0.32 0.40 | 865 1270 1170 1033 956 | <1 <1 <1 <1 <1 | 0.12 0.08 0.09 0.11 0.10 | <1 <1 <1 <1 <1 | 0.11 0.13 0.10 0.12 0.13 | 2 <2 4 <2 <2 <2 | <2 <2 <2 <2 <2 <2 | <2 <2 <2 <2 <2 <2 | 225 96 165 173 129 | <5 <5 <5 <5 <5 | <3 <3 <3 <3 <3 <3 | 85 124 97 103 96 |
| RC 10629 RC 10630 RC 10631 RC 10632 RC 10633 | <0.1 <0.1 <0.1 <0.1 0.1 | 2.51 1.89 2.28 1.56 1.92 | <3 <3 <3 <3 <3 | 30 30 30 30 30 | 167 196 183 199 267 | <pre><3 <3 <3 <3 <3 <3</pre> | 2.12 B.28 3.12 2.32 2.65 | <0.1 0.2 <0.1 <0.1 1.1 | 19 16 26 18 21 | (1 (1 (1 (1 | 50 43 58 60 77 | 6.90 9.62 7.79 6.22 5.77 | <0.01 <0.01 <0.01 <0.01 <0.01 | 0.33 0.19 0.35 0.30 0.38 | 938 2243 1083 877 958 | <1 <1 <1 <1 <1 | 0.09 0.07 0.14 0.11 0.10 | <1 <1 <1 <1 <1 | 0.11 0.12 0.13 0.12 0.12 | <2 <2 <2 <2 <2 2 | <2 <2 <2 <2 <2 <2 <2 | <2 <2 <2 <2 <2 <2 <2 | 64 124 75 86 202 | <5 <5 <5 <5 <5 | <3 <3 <3 <3 <3 | 110 98 84 107 104 |
| RC 10634 RC 10675 RC 10696 RC 10705 RC 10706 | <0.1 0.6 38.0 0.3 0.2 | 2.08 0.74 0.29 0.43 0.26 | <3 <3 135 <3 507 | 30 10 110 270 100 | 294 463 28 20 16 | <pre>{3</pre> | 2.52 6.24 3.67 >10 >10 | <0.1 1.6 8.0 0.9 <0.1 | 19 34 90 1 <1 | <1 <1 <1 <1 | 75 584 >20000 1141 118 | 5.77 >10 >10 9.79 >10 | <0.01 <0.01 <0.01 <0.01 <0.01 | 0.35 0.14 0.09 0.84 1.77 | 899 2120 1241 929 1215 | <1 <1 <1 <1 <1 | 0.10 0.05 0.01 <0.01 0.09 | <1 <1 <1 <1 <1 | 0.12 0.09 0.05 0.03 0.04 | <pre><2 20 141 10 37</pre> | <2 <2 <2 <2 <2 <2 7 | <2 <2 <2 <2 <2 <2 | 94 66 44 279 118 | <5 <5 <5 <5 <5 | <3 <3 <3 <3 <3 | 111 137 527 53 176 |
| RC 10707 RC 10779 RC 10780 RC 10781 | 0.8 <0.1 0.2 0.1 | 1.56 1.15 2.59 1.46 | <3 <3 <3 318 | 50 10 10 10 | 20 53 51 52 | <3 (3 (3 (3 | 0.55 0.51 1.71 1.47 | <0.1 0.9 0.7 <0.1 | <1 6 37 40 | <1 <1 <1 <1 | 264 31 155 113 | >10 5.36 7.81 5.62 | <0.01 <0.01 <0.01 <0.01 | 0.85 0.15 0.22 0.15 | 743 319 543 360 | <1 <1 <1 36 | 0.23 0.19 0.43 0.27 | <1 <1 <1 <1 | 0.08 0.11 0.11 0.09 | 42 7 9 . 12 | <2 4 <2 <2 | <2 <2 9 <2 | 6 31 98 69 | <5 <5 <5 <5 | <3 <3 <3 <3 | 133 59 73 47 |
| Minimum Detection Maximum Detection < - Less Than Minimum | 0.1 50.0 ≻ - (| 0.01 10.00 Greater | 3 2000 Than Maxi | 5 10000 mua | 1 1000 is - [ns | 3 1000 ufficier | | 0.1 1000.0 e ns | 1 20000 - No Sam | 1 1000 ple | 1 20000 ≇Au Ana | 0.01 10.00 Iysis Do | 0,01 10.00 ne By Fi | 0.01 10.00 re Assay | l 20000 Concentr | 1 1000 ation / | 0.01 10.00 AAS Fin | 1 20000 ish. | 0,01 10,00 | 2 20000 | 2 2000 | 2 1000 | 1 10000 | 5 100 | 3 1000 | 1 20000 |

ANALYST:

1630 Pandora street, Vancouver, B.C. vol 11.6 Ph: (604)251-5656 Fax: (604)254-5717

ICAP GEOCHEMICAL ANALYSIS

| | | | | A | .5 gram s | ample is | | | | | | | | | minutes a la, P, Sn, | | | io 10 ml | with wat | er. | 4 | ANALY | /ST: _ | pz. | M | ih |
|-----------------------|-------|---------|-----------|---------|-----------|----------|-----------|---------|----------|------------|---------|---------|----------|----------|-------------------------|------------|----------|----------|----------|---------|----------|--------|--------|-----|---------------|-------|
| REPORT #: 910152 PA | 601 | D FIELD | S CANADIA | N MININ | 6 | | PROJEC | T: # RC | -BC-08 | | | DATE | IN: AUG | 01 1991 | DATE | OUT: AL | JGUST 09 | 1991 AT | TENTION | GOLD FI | ELDS CDN | MINING | | | PAGE 2 | OF 2 |
| Sample Name | Ag | Al | As | ₹Au | Ba | Bi | Ca | Cď | Co | Cr | Cu | Fe | ĸ | ñg | Mn | Mo | Na | Ni | р | Pb | 55 | Sn | Sr | U | W | Zn |
| | ppa | X. | ppm | քքն | ppm | ppm | X | ppa | ppm | ppa | ppa | ĭ. | X. | X | pps | ppa | 7. | 008 | X | pps | ppm | ppna | ppe | pp≞ | pp ≞ . | bbw |
| RC 10782 | 0.B | 2.03 | >2000 | 830 | 109 | <3 | 5.20 | (0.1 | 44 | <1 | 155 | >10 | <0.01 | 0.20 | 1773 | <1 | 0.16 | <1 | 0.08 | 57 | 13 | <2 | 93 | <5 | <3 | 203 |
| RC 10783 | 0.2 | 2.04 | 915 | 30 | 73 | <3 | 6.65 | <0.1 | 38 | <1 | 143 | 6.45 | <0.01 | 0.19 | 931 | (1 | 0.31 | <1 | 0.08 | <2 | <2 | <2 | 92 | <5 | <3 | 70 |
| RC 10784 | 7.3 | 0.40 | 420 | 90 | 17 | 80 | 1.42 | <0.1 | 169 | <1 | >20000 | >10 | <0.01 | 0.03 | 1096 | <1 | 0.07 | <1 | 0.05 | 16 | <2 | <2 | 15 | <5 | <3 | 329 |
| RC 10785 | 5.1 | 0.59 | 320 | 80 | 381 | 47 | 1.78 | <0.1 | 142 | <1 | 4819 | >10 | <0.01 | 0.04 | 1349 | <1 | 0.06 | 1> | 0.07 | 39 | · <2 | <2 | 29 | <5 | <3 | 194 |
| RC 10790 | >50 | 0.09 | 331 | 160 | 30 | 353 | >10 | 18.9 | 260 | <1 | >20000 | >10 | <0.01 | 0.55 | 3452 | <1 | <0.01 | <1 | 0.05 | 76 | <2 | <2 | 247 | <5 | <3 | 1257 |
| RC 10821 | >50 | 0.41 | 135 | 30 | 7 | 101 | 4.95 | 9.1 | 95 | { 1 | >20000 | >10 | <0.01 | 0.12 | 2319 | <1 | <0.01 | 1 | 0.09 | 28 | <2 . | <2 | 43 | <5 | <3 | 927 |
| Minimum Detection | 0.1 | 0.01 | 3 | 5 | i | 3 | 0.01 | 0.1 | 1 | 1 | 1 | 0.01 | 0.01 | 0.01 | 1 | 1 | 0.01 | í | 0.01 | 2 | 2 | 2 | 1 | 5 | 3 | 1 |
| Maximum Detection | 50.0 | 10.00 | 2000 | 10000 | 1000 | 1000 | 10.00 | 1000.0 | 20000 | 1000 | 20000 | 10.00 | 10.00 | 10.00 | 20000 | 1000 | 10.00 | 20000 | 10.00 | 20000 | 2000 | 1000 | 10000 | 100 | 1000 | 20000 |
| < - Less Than Minimum | > - 6 | ireater | Than Maxi | តាបត | is - Ins | ufficier | nt Sample | ាទ | - No Sam | ple | ¥Au Ana | ysis Do | ne By Fi | re Assay | Concentr | ation / | AAS Fin | ish. | | | | | | | | |

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

| (| REPORT NUMBER: 910153 GA | JOB NUMBER: 910153 | GOLD FIELDS CANADIAN MINING LTD. PAGE 1 OF 2 |
|----|--|--------------------------------|--|
| لي | SAMPLE # | Au | |
| | RC 10603 RC 10604 | ppb 15 10 | |
| | RC 10605 RC 10606 RC 10607 | 5 5 15 | |
| | RC 10608 RC 10609 RC 10610 RC 10611 | 5 5 15 15 | |
| | RC 10612 | 5 | |
| | RC 10613 RC 10614 RC 10615 RC 10616 RC 10617 | 20 25 15 nd 10 | |
| | RC 10618 RC 10619 RC 10620 RC 10621 RC 10622 | nd 15 5 10 15 | |
| | RC 10623 RC 10624 RC 10625 RC 10676 RC 10677 | 225 65 110 145 105 | |
| | RC 10678 RC 10679 RC 10680 RC 10681 RC 10682 | 35 20 30 55 5 | |
| | RC 10683 RC 10684 RC 10685 RC 10686 RC 10687 | 25 20 25 20 20 | |
| | RC 10688 RC 10689 RC 10690 RC 10691 | 20 25 20 15 | |
| | DETECTION LIMIT ad = none detected | 5 = not analysed | is = insufficient sample |

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE 1630 PANDORA STREET VANCOUVER, B.C. V5L 1L6 TEL (604) 251-5656 FAX (604) 254-5717

BRANCH OFFICES BATHURST, N.B. RENO, NEVADA, U.S.A.

| REPORT NUMBER: | 910153 GA | JOB NUMBER: 910153 |
|----------------|-----------|--------------------|
| SAMPLE # | | Au |
| | | e ppb |
| RC 10692 | | 20 |
| RC 10693 | | nđ |
| RC 10694 | | 5. |
| RC 10695 | | 20 |
| RC 10697 | | 165 |
| RC 10698 | | 10 |
| RC 10699 | | 25 |
| RC 10700 | | 30 |

GOLD FIELDS CANADIAN MIWING LTD. PA

PAGE 2 OF 2

DETECTION LIMIT nd = none detected

| [== | | -(| | = | | |
|-------------|---------|---------------|---------------|-----------|------|--|
| | 1630 Pa | ndora Street. | Vancouver, B. | .C. V5L | 11.5 | |

Ph: (604) 251-5656 Fax: (604) 254-5717

ICAP GEOCHEMICAL ANALYSIS

A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HND₃ to H₂O at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST:

| REPORT #: 910153 PA | GOLD F | FIELDS | CANADIA | N MINING | LTD. | | PROJEC | .T: # RC- | BC-08 | | | DATE | IN: AUG | 01 1991 | DATE | OUT: AI | JGUST 12 | 1991 AT | TENTION: | GOLD FI | ELDS CAN | ADIAN HI | NING LTD. | | PAGE 1 | OF 2 |
|--|-------------------------|--------------------------------------|---------------------------------|--------------------------------|---------------------------------|-----------------------------|--------------------------------------|-------------------------------------|----------------------------|-----------------------------|--------------------------------|---|--|--------------------------------------|--------------------------------------|--|---|-----------------------------|--------------------------------------|---------------------------------|--|--|-------------------------------|----------------------------|---|-------------------------------------|
| Sample Name RC 10603 RC 10604 RC 10605 | 0.2 0 | A1 X 2.04 0.29 4.07 | As βρm <3 <3 <3 | ¥Ац ррб 15 10 5 | Ba ppm 219 111 184 | Bi ppm (3 4 (3) | Ca X 1.06 2.99 0.30 | Cd pps 1.5 (0.1 (0.1 | Co ppm 23 1 24 | Cr ppm <1 <1 <1 | Си фрм 72 13 31 | Fe % 6.54 1.35 7.65 | K Z <0.01 <0.01 <0.01 | Mg X 0.25 0.05 0.15 | Min ppa 1032 249 1027 | Но рраа ∢1 ∢1 ∢1 | Na X 0.04 0.03 0.01 | Ni pp= 45 <1 <1 | P 2 0.03 0.03 0.03 | ₽b ppma 8 6 ≺2 | Sb ppe <2 2 <2 | Sп ррв ∢2 17 З | Sr ppm 108 575 40 | U ppa <5 <5 <5 | ₩ рря <3 <3 <3 | Zn ppm 179 72 169 |
| RC 10606 RC 10507 | 0.1 2 | 2,48 2.58 | <3 <3 | 5 15 | 261 283 | <3 <3 | 0.95 | 0.9 | 26 27 | <1 <1 | 72 | 7.44 7.77 | <0.01 <0.01 | 0.26 | 1186 1331 | <1 <1 | 0.04 | 7 | 0.03 | 5 | <2 <2 <2 | <2 <2 | 102 120 | <5 <5 | <3 <3 | 194 204 |
| RC 10608 RC 10609 RC 10610 RC 10611 RC 10612 | 1.2 4 0.4 3 0.1 3 | 1.53 4.65 3.13 3.61 2.79 | 440 355 473 <3 <3 | 5 5 15 15 5 | 127 115 235 286 207 | <3 <3 <3 <3 <3 | 9.74 5.21 1.47 0.22 0.30 | 18.5 16.2 17.0 1.2 <0.1 | 12 18 24 25 22 | <1 <1 <1 82 <1 | 58 159 247 60 58 | 3.31 5.72 >10 >10 >10 | <0.01 <0.01 <0.01 <0.01 <0.01 | 0.16 0.57 0.32 0.34 0.21 | 1939 1456 5326 542 1396 | 13 2 (1 (1 (1 | <0.01 <0.01 <0.01 0.03 0.01 | 105 157 5 2 5 | 0.14 0.22 0.05 0.04 0.07 | 16 76 99 <2 14 | 14 <2 <2 <2 <2 | <2 <2 <2 <2 <2 <2 | 877 244 57 75 31 | <5 <5 <5 <5 <5 | <3 <3 <3 <3 <3 | 1013 1940 3219 321 211 |
| RC 10613 RC 10614 RC 10615 RC 10615 RC 10615 RC 10617 | 0.2 2 0.2 1 1.4 3 | 3.19 2.39 1.92 3.67 2.31 | <3 17 164 1698 1992 | 20 25 15 <5 10 | 483 429 410 209 240 | <3 <3 <3 <3 <3 | 0.10 0.06 0.21 1.59 1.65 | 0.3 <0.1 <0.1 1.5 2.8 | 17 15 30 16 20 | 103 74 <1 <1 <1 | 34 34 42 197 131 | >10 >10 >10 5.77 6.78 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.35 0.16 0.10 0.18 0.18 | 448 799 1832 1642 703 | (1 (1 (1 (1 | 0.07 0.05 0.07 0.02 0.03 | 25 <1 <1 29 11 | 0.04 0.08 0.06 0.06 0.04 | 524 29 7 <2 4 | <2 <2 <2 <2 <2 <2 <2 | 949 《2 《2 《2 《2 《2 | 77 78 74 63 69 | <5 <5 <5 <5 <5 | <pre><3 <3 <3 <3 <3 <3 <3 </pre> | 108 126 127 191 151 |
| RC 1061B RC 10619 RC 10620 RC 10621 RC 10622 | 0.3 4 0.1 2 0.2 3 | 3.72 4.55 2.62 3.41 3.06 | 116 281 (3 74 1511 | <5 15 5 10 15 | 125 113 121 220 277 | <3 <3 <3 <3 <3 | 0.43 0.21 0.17 0.65 1.58 | 1.2 0.5 <0.1 <0.1 1.2 | 63 26 12 35 16 | <1 <1 <1 <1 <1 | 166 146 42 125 130 | >10 8.58 5.06 >10 6.13 | <0.01 <0.01 <0.01 <0.01 <0.01 | 0.19 0.19 0.10 0.33 0.25 | 2417 1101 789 1797 1228 | <1 <1 <1 <1 <1 | <0.01 <0.01 0.02 <0.01 0.03 | 7 9 <1 <1 16 | 0.05 0.03 0.04 0.03 0.05 | <2 <2 2 <2 <2 <2 | <2 <2 <2 <2 <2 <2 <2 | <2 <2 <2 <2 <2 <2 <2 | 40 20 21 40 56 | <5 <5 <5 <5 <5 | <3 <3 <3 <3 <3 | 196 180 100 195 109 |
| RC 10523 RC 10624 RC 10625 RC 10675 RC 10677 | 0.1 2 1.2 2 2.8 2 | 3.89 2.14 2.43 2.75 1.92 | <pre></pre> | 225 65 110 145 105 | 78 72 330 206 285 | <3 <3 7 19 15 | 0.34 0.15 2.20 1.15 9.61 | <0.1 <0.1 1.1 79.4 19.7 | 20 15 16 52 7 | <1 <1 <1 <1 <1 | 76 24 350 2633 163 | 8.91 5.42 7.80 >10 >10 | <pre><0.01 <0.01 <0.01 <0.01 <0.01 <0.01</pre> | 0.11 0.09 0.19 0.74 0.95 | 557 258 1058 5051 >20000 | <1 5 <1 6 <1 | 0.01 0.02 (0.01 (0.01 (0.01 | 31 <1 6 <1 <1 | 0.06 0.02 0.07 0.07 0.07 | <pre><2 12 23 14 66</pre> | <2 <2 <2 <2 <2 <2 | <2 14 <2 <2 <2 <2 | 16 17 81 24 150 | <5 <5 <5 <5 <5 | (3) (3) (3) (3) (3) | 84 58 513 12581 3058 |
| RC 10678 RC 10679 RC 10680 RC 10681 RC 10682 | 0.8 1 0.5 2 1.0 2 | 1.89 1.52 2.86 2.44 3.41 | 107 37 <3 987 <3 | 35 20 30 55 5 | 101 65 47 143 89 | 12 <3 <3 7 <3 | >10 0.77 0.23 1.57 0.31 | 6.8 <0.1 27.1 20.0 0.6 | 9 8 (1 28 20 | <1 <1 <1 <1 <1 | 32 38 534 661 79 | 3.99 5.05 >10 >10 6.98 | <0.01 <0.01 <0.01 <0.01 <0.01 | 0.22 0.05 1.00 0.22 0.16 | 2478 279 3195 2457 1332 | <pre> {1 1 {1 {1 75 </pre> | <0.01 <0.01 <0.01 <0.01 <0.01 | <1 <1 35 <1 | 0.20 0.02 0.05 0.05 0.03 | 15 17 4 35 18 | 2 <2 <2 <2 <2 <2 | <2 <2 <2 <2 <2 <2 | 519 36 4 56 30 | <5 <5 <5 <5 <5 | <3 <3 <3 <3 <3 <3 | 1161 282 15818 5418 396 |
| RC 10683 RC 10684 RC 10685 RC 10686 RC 10687 | 0.1 2 0.4 5 0.1 2 | 0.83 2.31 5.95 2.34 1.47 | <3 6 <3 <3 <3 | 25 20 25 20 20 | 72 91 131 93 76 | <3 <3 <3 <3 <3 | 0.11 0.43 0.7B 0.20 0.98 | 2.8 0.9 5.2 (0.1 0.6 | 67 25 40 18 25 | (1) (1) (1) (1) (1) | 268 74 558 55 55 | >10 >10 >10 >10 6.01 >10 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.37 0.41 1.97 0.36 0.07 | 13150 2403 1005 773 1537 | <1 <1 <1 <1 11 | <0.01 <0.01 <0.01 0.02 <0.01 | <1 <1 57 <1 <1 | 0.07 0.04 0.02 0.02 0.08 | 40 16 <2 11 68 | <2 <2 <2 <2 <2 <2 | <2 <2 <2 <2 <2 <2 | 8 31 75 20 30 | <5 <5 <5 <5 <5 | <pre><3 <3 <3 <3 <3 <3</pre> | 974 515 387 148 99 |
| RC 10688 RC 10689 RC 10690 RC 10691 | 1.3 4 0.8 4 | 5.53 4.04 4.81 5.50 | 236 323 <3 <3 | 20 25 20 15 | 132 85 58 93 | <3 <3 <3 <3 | 0.65 0.25 0.08 0.23 | 3.4 3.1 (0.1 (0.1 | 63 25 12 51 | <1 <1 <1 <1 | 379 392 124 221 | >10 >10 >10 >10 >10 | <0.01 <0.01 <0.01 <0.01 | 0.29 0.08 0.05 0.14 | 5067 1393 394 2453 | <1 45 2 1 | <0.01 <0.01 0.01 <0.01 | 1 <1 <1 4 | 0.06 0.08 0.05 0.06 | 15 40 3 <2 | <2 <2 <2 <2 <2 | <2 <2 <2 <2 <2 | 31 38 12 30 | <5 <5 <5 <5 | <3 <3 <3 <3 | 590 277 91 164 |
| Minimum Detection Maximum Detection (- Less Than Minimum | | 0.01 0.00 ater Th | 3 2000 aan Maxi | 5 10000 sua | 1 1000 is - Ins | 3 1000 ufficien | | 0.1 1000.0 ns | 1 20000 - No Sam | 1 1000 ple | 1 20000 #Au Anal | 0.01 10.00 Lysis Do | 0.01 10.00 ne By Aqu | 0.01 10.00 1a Regia | 1 20000 Digestic | 1 1000 on / Sol | 0.01 10.00 vent Ext | 1 20000 raction / | 0.01 10.00 / AAS. | 2 20000 | 2 2000 | 2 1000 | 1 10000 | 5 100 | 3 1000 | 1 20000 |

1630 Pandora Street, Vancouver, B.C. V5L 1L6 Ph: (604)251-5656 Fax: (604)254-5717

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ICAP GEOCHEMICAL ANALYSIS

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A .5 gram sample is digested with 5 ml of 3:1:2 HCL to HNO, to H₂O at 95 °C for 90 minutes and is diluted to 10 ml with water. This leach is partial for Al, Ba, Ca, Cr, Fe, K, Mg, Mn, Na, P, Sn, Sr and W.

ANALYST: Mark

| REPORT #: 910153 PA | SOLD FIELDS CANADIAN MINING LTD. | | | | PROJECT: # RC-BC-08 | | | | DATE IN: AUG 01 1991 | | | DATE OUT: AUGUST 12 1991 | | | | ATTENTION: GOLD FIELDS CANADIAN MINING LTD. | | | | | PAGE 2 OF 2 | | | | | | |
|-----------------------|----------------------------------|-----------|------|-------|---------------------|------|-------|--------|----------------------|------|---------|--------------------------|-------|-------|-------|---|-------|-------|------|-------|-------------|------|-------|-----|------|-------|--|
| -Sample Name | Ag | Al | As | +Au | Ba | Bi | Ca | Ćď | Co | Cr | Cu | Fe | ĸ | Mg | fin | fio | Na | Ni | P | Pb | Sb | Sn | Sr | IJ | ¥ | Zn | |
| | ppin | X. | ppa | ppb | ppa | ppa | z | pps | ppe | pps | թրո | X. | 7. | X | pp≊ | ppe | 1 | ppe | ĩ | លក្ | pp≞ | ppn | ppa | pp∎ | ppe | pps | |
| RC 10692 | 0.3 | 5.18 | 325 | 20 | 143 | <3 | 0.59 | 1.5 | 58 | <1 | 223 | >10 | <0.01 | 0.24 | 2058 | (1 | 0.03 | 31 | 0.02 | <2 | <2 | <2 | 23 | <5 | <3 | 454 | |
| RC 10693 | 0.5 | 4.79 | < <3 | <5 | 170 | <3 | 0.66 | <0.1 | 68 | <1 | 256 | >10 | <0.01 | 0.27 | 5475 | <1 | 0,02 | (1 | 0.05 | <2 | <2 | <2 | 24 | <5 | <3 | 212 | |
| RC 10694 | 1.3 | 3.43 | <3 | 5 | 200 | <3 | 1.63 | <0.1 | 48 | <1 | 384 | >10 | <0.01 | 0.30 | 3618 | <1 | 0.07 | <1 | 0.06 | <2 | <2 | <2 | 41 | <5 | <3 | 233 | |
| RC-10695 | 7.6 | 1.88 | (3 | 20 | 328 | 355 | 0.37 | 1.9 | 94 | <1 | 6139 | >10 | <0.01 | 0.11 | 3952 | <1 | (0.01 | <1 | 0.05 | 125 | <2 | <2 | 16 | <5 | <3 | 391 | |
| RC 10697 | 0.7 | 1,94 | 1286 | 165 | 412 | 4 | 2,85 | 0.6 | 42 | <1 | 500 | >10 | <0.01 | 0.38 | 1867 | <1 | <0.01 | 4 | 0.04 | 52 | <2 | <2 | 122 | <5 | <3 | 509 | |
| RC 10698 | 0.3 | 3.31 | 23 | 10 | 375 | (3 | 1.51 | <0.1 | 26 | (1 | 55 | 9.16 | (0.01 | 0.36 | 1006 | <1 | <0.01 | (1 | 0.03 | <2 | <2 | <2 | 69 | <5 | <3 | 289 | |
| RC 10699 | 0.2 | 2.25 | 331 | 25 | 238 | <3 | 1.11 | 0.5 | 27 | <1 | 342 | >10 | <0.01 | 0.37 | 1980 | <1 | (0.01 | (1 | 0,03 | 9 | <2 | <2 | 51 | <5 | <3 | 444 | |
| RC 10700 | 0.2 | 3.32 | 1947 | 30 | 206 | 13 | 0.66 | 0.6 | 21 | <1 | 108 | >10 | <0.01 | 0.17 | 7496 | 3 | <0.01 | 20 | 0.07 | 29 | <2 | <2 | 28 | <5 | <3 | 812 | |
| Minimum Detection | 0.1 | 0.01 | 3 | 5 | 1 | 3 | 0.01 | 0.1 | - 1 | 1 | 1 | 0.01 | 0.01 | 0.01 | 1 | 1 | 0.01 | 1 | 0.01 | 2 | 2 | 2 | í | 5 | 3 | 1 | |
| Maximum Detection | 50.0 | 10,00 | 2000 | 10000 | 1000 | 1000 | 10.00 | 1000.0 | 20000 | 1000 | 20000 | 10.00 | 10.00 | 10.00 | 20000 | 1000 | 10.00 | 20000 | | 20000 | 2000 | 1000 | 10000 | 100 | 1000 | 20000 | |
| < - Less Than Minimum | | ireater 1 | | | is - Ins | | | | - No Sam | | ∔Au Ana | | | | | | | | | | | | | | | | |

APPENDIX C

ROCK SAMPLE DESCRIPTIONS SHEETS

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TULSEQUAN EPROJECT

| Sample: | | Location: | Lithology: | Remarks / Alteration / Structure: | Mineralization | Analysis: |
|---------|-----------|-----------|--------------------|--|---|---------------------------------------|
| 10339 | 19/ 17/91 | | QTZ-CARE UTEIN | Iron coob alt. | | |
| 10340 | | | | Pagmatitic, iron coab alt. | | |
| 10341 | 12 . | | GOSSAN | Float - goethive, pyrolusite | 5 % P4 | |
| 10342 | <u> </u> | | | | | |
| 10343 | | | HE-Bi DIORITE | | 1-3 76 py | |
| 10344 | 7/19/91 | | QTE-FE PORPH | iron comb locally str. sil. & bloaching | 5-8 to Ry | |
| 10345 | h | | ANDRSITE | Gossonous locally sil & blace had gossonous, weak sil, etz-cole veins | 10% ey - disser ciphos | |
| 10346 | N | | 11 | gossonous, weak sil. etz-cole veins | 5-15% pre - dissen & stringere | |
| 10347 | 11 | | SILTSTONE | fine grained liney | 10% vfg laminaded py. 20% py + locally 10-15% asp up to 8% py discampy ft. gol ena | |
| 10348 | <u> </u> | | Breccia | silicified volc & sads | 20% Ru + locally 10-15% asp | |
| 10349 | <u></u> | · | ARGILLITE/SILTETON | 5m chip, liney dort grey -bl. locally sil.; calc beds = 1 cm | who a to BU | · · · · · · · · · · · · · · · · · · · |
| 10 3 50 | 11 | | <u> </u> | locally sil. : calc beds Elen | discempy fr. goliena | 1 |
| 10558 | <u> </u> | | QUE ARENITE | 15% gtz, Fe carb att. | | |
| 10559 | | | 11 | 1, 1, | | 1 |
| 10560 | 1 | | CALCITY VEIN | 1st wide hosted by soudstone | · · · · · · · · · · · · · · · · · · · | 1 |
| 10561 | <u>ų</u> | | QTE ARENITE | abundant rock frags. | | <u></u> |
| 10562 | 1 | | | bouldors up to zocm, cole. matrix | | 1 |
| 10563 | i) | | SAUDSTONE | os in 10558 | | |
| 10564 | 11 | | / 1 | Float, mossive feldspathic, calc. | | 1 |
| 10565 |) | | . L | at with | | - |
| 10566 | <u>.</u> | | FELDS PORPHYRY | gtz rich Float, comb alt | | + |
| 10567 | 11 | | SANDSTONIE | locally siltstone | | |
| 10626 | , 11 | | | Fe O stain & m somplo | | + |
| 10627 | h | | <i>n</i> | 11 0.7m 11 | | |
| 10628 | <u> </u> | | QTE DIORITE | mossive 1.0m " | | 1 |
| 10629 | н | | SANDSTONE | med gr., FeO stain 1.5 m sample | | |
| 10630 | 11 | | CONGLOHERATE | limonitic, granitic, sst, ss pebblos + cobbos | | · |
| 10631 | H | | 11 | 11 | 0.9m soup 6 | |
| 10632 | 21 | | SANSTSTONS | fine to ned go., weak lin. stain | 1.0 m " | |
| 10633 | 11 | | 11 | When the man we want the storen | 0.3 m " | |

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TULSEQUAN & PROJECT

| Sample. | Date: | Location | Lithology | Remarks / Alteration / Structure: | Mineralization | Analysis: |
|----------|----------|---------------------------------------|--|---|---|---------------------------------------|
| RC 10634 | 7/19/91 | | | sulc. froct. 1.6 m sayo | to py disseen spec. here. to mol. cp Pb, Zn, Cu | |
| 10675 | | | ti | 4.5 m 11 | dissem spec. here. tr. mol. cp | |
| 10696 | <u> </u> | | SHEAR EONE | | Pb, Zn, Cu | |
| 10705 | <u>.</u> | | LIMASTONIE BX. | magnetile along fractures | | |
| 10706 | h. | · · | MAGINETITE | Marsine . | | |
| 10707 | 15 | | ti . | bi, hb, 10m wide dy ho. Weak to nod carb att. 40m grab | | |
| 10779 | 7/22/91 | | GILANO DIOROTTE | bi, hb, 10m wide dy he. | 16 pay 1-376 py | , |
| 08701 | 11 | | SST., CHERT ARG | weak to mod carb att. 40 m grab | | |
| 10781 | <u>،</u> | | <u> </u> | 11 weak sil. Up m 2+04 | 11 V 1-3% pos | |
| 10-782 | i) | | <u>ti</u> | fracture zone, Fe carb mating | py, hem, op, ga I spage 1.5 m grob | |
| 10783 | 11 | | SILTSTONT | sil., liney, gossonous gossonous, os in 10782 | ру, ham, cp, ga ± spc40% 1.5 л угов 10 % ру + f0 | |
| 10784 | 11 | · · · · · · · · · · · · · · · · · · · | . 11 | gossonaus, os in 10782 | | |
| 10785 | 4 | | HYDROTHERHAL BX | gossonous, os in 10782 oz in 10784 | | |
| 10790 | 7/23/91 | | Front | Mossive cp + bornite in suggy atz. | costs matrey | |
| 10821 | Ш | | SANDSTOLDE | gossenous, precipited, float. | hemotite cp., mal, py | · · · · · · · · · · · · · · · · · · · |
| | | | | · · · · · · · · · · · · · · · · · · · | | |
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