1994

EXPLORATION

REPORT

RED-CHRIS
PROJECT

H118

VOLUME I
OF VI

24615
PART 1 of 6

AMERICAN BULLION MINERALS LTD.

February 22, 1995

RECEIVED
M-118
FEB 24 1995
EXPLO... PROGRAM
MEMPR

Mr. D. J. Alldrick
Manager, EXPLORE B. C.
Ministry of Energy, Mines & Petroleum Resources
5th Floor, 1810 Blanshard Street
Victoria, B.C. V8V 1X4

Dear Dani,

Re: Grant No. 94/95M-118, Red-Chris Project

Attached please find our final exploration report summarizing the encouraging 1994 results obtained at the Red-Chris Project.

We would like to thank you and the Ministry for allowing us the opportunity for the Explore B.C. grant. We feel the Mineral Exploration Incentive Program has been successful in encouraging continued exploration in the province which could benefit us all when new mines, such as Red-Chris, are brought on stream. As this program stimulates the level of exploration, we all support continuation of Explore B.C. grants in 1995.

Thanks again for the financial support.

Yours very truly,

AMERICAN BULLION MINERALS LTD.

Wayne J. Roberts,
Vice President, Exploration

WJR/mcw

15th Floor, 675 West Hastings Street, Vancouver, British Columbia, Canada V6B 1N2
Tel: (604) 687-4951 Fax: (604) 687-4991

FACSIMILE COVER SHEET

AMERICAN BULLION MINERALS LTD.
1500 - 675 West Hastings Street
Vancouver, B.C. V6B 1N2
Tel: (604) 687-4951
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DATE:	February 23, 1995	
TO:	Dani Alldrick	FAX NO: 1-604-952-0381
COMPANY NAME:	Prov. of B.C. - Economic Geology Section	
FROM:	Wayne J. Roberts	
NO. OF PAGES:	2 (including coversheet)	

MESSAGE: CHARGE TO:

Dani,

Attached is our covering letter for the Red-Chris report. The report will be sent by courier to you today, along with the original letter.

Regards

Wayne

If all pages not received please contact Margaret at the above number.

February 22, 1995

Mr. D. J. Alldrick
Manager, EXPLORE B. C.
Ministry of Energy, Mines & Petroleum Resources
5th Floor, 1810 Blanshard Street
Victoria, B.C. V8V 1X4

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24615

1994 EXPLORATION REPORT

on the

RED - CHRIS PROPERTY

Todagin Plateau Area
Liard Mining Division
British Columbia, Canada

Latitude: 57° 42' North   Longitude: 129° 47' West
N.T.S. 104 H/12W

- Prepared For -

AMERICAN BULLION MINERALS LTD.

Suite 1500 - 675 West Hastings Street
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GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

24,615

- Prepared By -

MINOREX CONSULTING LTD.

11967 - 83A Avenue
Delta, British Columbia, Canada V4C 2K2

Part 1 of 6

February, 1995

FILMED

J. Douglas Blanchflower, P. Geo.
Consulting Geologist

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SUMMARY

American Bullion Minerals Ltd. controls and operates the Red-Chris copper-gold property which is comprised of 151 two-post, fractional and modified grid mineral claims, totalling 396 units, that are located in the Liard Mining Division of northwestern British Columbia, Canada. The property is located on a north-facing plateau between Ealue and Kluea Lakes, approximately 20 kilometres southeast of the village of Iskut or 80 kilometres south of Dease Lake, at geographic coordinates 57° 42' North latitude by 129° 47' West longitude (N.T.S. map-sheet 104H/12W).

Between January and March, 1994 American Bullion Minerals Ltd. negotiated option agreements with Falconbridge Limited, Norcen Energy Resources Limited and Teck Corporation to acquire an eighty percent interest in the property with Teck Corporation retaining ten percent participating and ten percent carried net profit interests. The terms of the agreement include provisions by which Teck Corporation may increase its interest in the property to fifty-five percent at which time American Bullion Minerals Ltd. would retain a forty-five percent carried and non-assessable interest.

The property is situated regionally within the eastern Todagin upland plateau; a subdivision of the Klastline Plateau that lies along the northern margin of the Skeena Mountains. It is readily accessible with helicopter support from several landing sites along Highway 37 (Stewart-Cassiar Highway) which is approximately 12 kilometres east of the central claim holdings. There is a rough bulldozer tote trail to the property that leads southward from the Coyote Creek-Ealue Lake road, approximately 8 kilometres west of Highway 37, but this route is not recommended for vehicular access until it has been improved.

The first recorded exploration of the Todagin Plateau was undertaken by Conwest Exploration Limited in 1956 (B.C.M.M.A.P., 1956). Later, Great Plains Development Company of Canada (1969-74) and Silver Standard Mines Ltd. (1970-74) staked and explored their own Chris-Money and Red-Sus claim holdings respectively. In 1974, Ecstall Mining Limited (later Texasgulf Inc.) negotiated joint venture agreements with these two companies and amalgamated their respective claim holdings. Following the discovery of low-grade copper mineralization, drilling programs were conducted by Texasgulf Inc. in 1974, 1975, 1976, 1978 and 1980. The results of this work indicated two coalescing, east-northeasterly trending zones of porphyry-style copper-gold mineralization hosted by the 'Red' stock, a weakly- to intensely-altered feldspar hornblende porphyry intrusion. These two zones, called the 'Main' and 'East', have a strike length exceeding 1,300 metres and widths ranging from 150 to 500 metres. Later, as a result of a series of corporate reorganizations and takeovers, the ownership of the property passed to Norcen Energy Resources Limited (20%), Falconbridge Limited (60%) and Teck Corporation (20%).

Based upon pre-1994 drilling results, Rebagliati (1994) estimated the geological resources of the Main and East Zones at 136 million tonnes (150 million tons) grading 0.38 percent copper and 0.25 grams gold per tonne (0.007 ounces per ton), using a 0.20 percent copper cutoff grade, with higher grade core zones containing approximately 37 million tonnes (41 million tons) grading 0.67 percent copper and 0.45 grams gold per tonne (0.013 ounces per ton). Since these higher grade core zones were shown to be potentially open vertically and laterally and because there were several untested exploration targets an aggressive exploration program was recommended that included 15,000 metres of diamond drilling to upgrade and expand the higher grade core zones and explore the rest of the property.

The 1994 field exploration program was conducted by American Bullion Minerals Ltd. from June 15th to November 7th, and it comprised:

- claim staking (RC-1 to -7 M.G.S. claims (108 units) in January, 1994, and ABM-1 to -6 M.G.S. claims (85 units) in September, 1994);
- preparation of orthophotogrammetic topographic plans (1:5,000 and 1:2,000 scales);
- land surveying (various drill collar, topographic and G.P.S. surveys);
- establishment of a metric survey control grid (73.75 line-km.);

- soil geochemical sample collection and analyses (547 samples for gold and 31-element I.C.P.);
- geophysical surveying (73.75 line-km. ground magnetics, 25.65 line-km. Very Low Frequency electromagnetics and 71.85 line-km. induced polarization surveys);
- construction of on-site 50-person camp and core logging facilities;
- HQ- and NQ-core diamond drilling (58 holes totalling 21,417.08 m. or 70,266 ft.);
- drill core sample analyses (7,476 samples assayed for copper and gold, 908 and 885 duplicate samples assayed for copper and gold respectively);
- drill core sample check-assaying (228 samples for copper and gold);
- mineral characterization analyses (1,234 samples for 31-element I.C.P.);
- preliminary acid base accounting analyses (25 widely-distributed and typical drill core samples);
- base-line environmental studies (hydrology, water quality, meteorology, and fish and wildlife studies);
- petrographic studies (34 thin-sections and offcut pairs of various lithologic units); and
- subsequent collation, compilation and documentation of the results of the program.

The exploration expenditures for the period of January 1 to December 31, 1994 total CAN $4,277,842.77.

The Red-Chris deposit is a bulk tonnage copper-gold deposit with hybrid alkalic and calc-alkalic porphyry copper characteristics. It is hosted by the 'Red' stock, an Upper Triassic hypabyssal intrusion of plagioclase-hornblende porphyry of monzodioritic composition, that is probably comagmatic with the surrounding alkaline volcanic rocks. The emplacement of the intrusion and its subsequent pervasive alteration, sulphide mineralization and late-stage dykes are controlled by reactivated, east-northeasterly faulting. Several north-northwesterly normal and oblique faults occur along the length of the Red stock, and they appear to have been responsible for local westside-down, right lateral displacements of the copper-gold mineralization, its associated quartz vein stockwork zones, and other copper (± gold) showings along strike of the deposit. Another east-northeasterly normal fault has downdropped clastic sedimentary rocks of the Middle Jurassic Bowser Lake Group and they now lie in unconformable contact with the Red stock and surrounding Upper Triassic strata.

The Red stock is comprised of two phases of plutonic rocks that are cut by several post-mineral dykes. The 'Main Phase' is a medium-grained, weakly- to intensely-altered plagioclase-hornblende porphyritic monzodiorite that hosts all of the known copper-gold mineralization and constitutes approximately 80 to 90 percent of the stock. The 'Late Phase' rocks are similar in composition, notably fresh to very weakly altered, usually barren of copper-gold mineralization, and represent approximately 10 to 18 percent of the stock. The late-stage dykes vary from dioritic to monzonitic composition, and constitute the minor remaining volume of the stock.

Two stages of hydrothermal alteration have affected the rocks in the vicinity of the Red-Chris deposit: an earlier stage of orthoclase-albite-biotite, albite-chlorite-calcite and ankerite-sericite-quartz alteration, and later stage of quartz-ankerite-kaolinite-sericite, quartz-sericite-ankerite-kaolinite and pervasive quartz-sericite-pyrite alteration. Irregular zones of late, barren to very weakly mineralized gypsum vein stockwork and carbonate veining appear to be unrelated to the main hydrothermal copper-gold mineralizing event (s).

Chalcopyrite and lesser bornite occur as disseminations and fracture fillings associated with well developed quartz-sulphide vein stockwork zones and intensely sheeted quartz veining. These zones are spatially- and probably genetically-related to east-northeasterly, subvertical faulting along the central east-northeasterly axis of the Red stock. Pyrite and covellite also occur within the mineralized vein stockwork zones; however, pyrite is most abundant in a halo peripheral to the copper-rich mineralization. Microscopic gold grains are intimately associated with the copper sulphide minerals and their respective grades are proportional.

The soil geochemical survey results, when compiled with the reported basal till sampling results, show a large and continuous east-northeasterly trending copper-in-soil geochemical anomaly covering most of the Red stock for a length of 3.8 kilometres and average width of 800 metres. In the East and West Gullies area anomalous copper-in-soil geochemical values (> 100 p.p.m. copper) form an arcuate, concave west-facing zone centred at grid coordinates 99750 North by 49150 East. High gold-in-soil geochemical values (>50 p.p.b. gold) occur as a northerly trending zone from 99200 to 99950 North; coincident with the highest copper-in-soil values and a strong induced polarization chargeability anomaly.

The induced polarization survey successfully outlined sulphide-rich zones along the mapped length of the Red stock; including two significant exploration targets beyond the known limits of the Red-Chris deposit. The highest priority target is centred at grid coordinates 99900 North by 48400 East and is approximately 600 metres long by 600 metres wide. It has a strong chargeability high and resistivity low but no significant magnetic response, very similar to that over the Red-Chris deposit. The second exploration target is centred at grid coordinates 99500 North by 48900 East and is approximately 700 metres long by 400 metres wide. It is characterized by a strong chargeability high, moderate resistivity values and a magnetic response of about 150 nT above background. The induced polarization anomaly over the Red-Chris deposit shows that the mineralization continues in all directions beyond the current drilling (Lloyd, 1995).

Fifty-five drill holes were collared within the Red-Chris deposit to test its lateral and vertical extent, as well as to confirm the continuity and grade of the copper-gold mineralization. This drilling discovered continuous mineralization over vertical distances of 400 metres and expanded the lateral dimensions of the deposit in a north-south direction. Three other drill holes tested a geophysical anomaly approximately one kilometre east of the Red-Chris deposit. They intersected pervasively altered and pyritized intrusive and volcanic rocks but did not discover any significant copper or gold mineralization.

As a direct result of the 1994 exploration program, the mineral inventory of the Red-Chris deposit has been increased 150 percent over previous resource calculations. The present drill-indicated geological resources of the deposit, as calculated by an independent mining engineer (Giroux, 1995), are tabulated as follows:

Cutoff Grade	**Resource**	**Grade**	
(Copper %)	**(tonnes)**	**Copper (%)**	**Gold (g.p.T.)**
0.200	320,380,000	0.379	0.296
0.250	251,640,000	0.421	0.328
0.300	186,140,000	0.473	0.364
0.350	137,400,000	0.526	0.410
0.400	**100,110,000**	**0.584**	**0.458**
0.450	77,700,000	0.630	0.505
0.500	60,830,000	0.674	0.549

Continued detailed exploration of the Red-Chris deposit and the untested exploration targets is fully justified. American Bullion Minerals Ltd. should continue with an aggressive drilling program to expand the mineral inventory on the property and complete a pre-feasibility study by year-end. The recommended program of 21,400 metres of HQ-/NQ-core diamond drilling; engineering, environmental and metallurgical studies; and the pre-feasibility study is estimated to cost CAN $4.16 million.

RECOMMENDATIONS

It is recommended that the accelerated and detailed exploration of the property be continued. This work should be focused primarily at fulfilling the requirements of a 1995 pre-feasibility study and secondarily at investigating the three exploration targets on strike of the Red-Chris deposit. This exploration work should commence in April and be completed by October.

The next exploration program should include the following work:

1) Focus studies - to determine the economic, geologic and engineering parameters required for a viable mining operation on the property;

2) Detailed HQ-core diamond drilling - to define the lateral limits of the deposit, increase the drilling density for confirmation of the probable and possible geologic resources, and test beyond the limits of mineralization for preliminary pit slope design. It is estimated that a minimum of 25 drill holes, totalling 12,500 metres, will be required to accomplish this recommendation. The proposed drill sites are shown on Figure 9 and in Table V of this report;

3) Exploratory HQ- and/or NQ-core diamond drilling - to evaluate the northwestern and western extensions of the Red-Chris deposit, and the two large geophysical anomalies between the East and West Gully drainages and at the northwestern corner of the survey control grid. Seven HQ- and/or NQ-core diamond drill holes, totalling 3,400 metres, are proposed to test for lateral and/or downdropped extensions of the Main Zone, and fifteen NQ-core diamond drill holes, totalling 5,500 metres, are proposed to test the two large geophysical anomalies. The proposed drill sites are shown on Figure 9 and in Table V of this report;

4) Metallurgical testing - to identify and optimize recoveries of copper and gold, and maximize copper and/or gold concentrate grades;

5) Acid Base Accounting studies - to provide the necessary net neutralizing potential data for both the high and low grade copper-gold mineralization, as well as the waste rock;

6) Environmental studies - to complete the baseline environmental studies begun in 1994;

7) Access road construction - pending a mid-program review of the exploration results, the rough access road route should be upgraded for vehicle access from the Coyote Creek-Ealue Lake road;

8) Socioeconomic studies and public information meetings - to apprise the local residents of exploration results and possible development plans; and

9) Pre-feasibility study - to determine the geologic resources and possible viability of a mining and milling operation on the property.

The estimated cost of the above recommended exploration program is CAN $ 4,162,628.00.

INTRODUCTION

American Bullion Minerals Ltd. controls and operates the Red-Chris copper-gold property which is comprised of 151 two-post, fractional and modified grid mineral claims, totalling 396 units. It is located in the Todagin Plateau area, or approximately 20 kilometres southeast of the village of Iskut, in the Liard Mining Division of northwestern British Columbia, Canada.

The first recorded exploration work in the vicinity of the current property was undertaken by Conwest Exploration Limited in 1956 (B.C.M.M.A.P., 1956). Later, Great Plains Development Company of Canada (1969-74) and Silver Standard Mines Ltd. (1970-74) staked and explored their own Chris-Money and Red-Sus claim holdings respectively. In 1974, Ecstall Mining Limited (later Texasgulf Inc.) negotiated joint venture agreements with these two companies and amalgamated their respective claim holdings. Following the discovery of low-grade copper mineralization, drilling programs were conducted by Texasgulf Inc. in 1974, 1975, 1976, 1978 and 1980. The results of this work indicated two coalescing, east-northeasterly trending zones of porphyry-style copper-gold mineralization hosted by the 'Red' stock, a weakly- to intensely-altered feldspar hornblende porphyry intrusion. These two zones, called the 'Main' and 'East', have a strike length exceeding 1,300 metres and widths ranging from 150 to 500 metres. Assuming a cut-off grade of 0.25 percent copper and a mean specific gravity of 2.81, Texasgulf Inc. estimated the resources of the Main Zone at 33 million tonnes grading 0.51 percent copper and 0.27 gram per tonne (0.008 o.p.t.) gold (Newell and Schmitt, 1978), and those of the East Zone at 6.7 million tonnes grading 0.78 percent copper and 0.65 gram per tonne (0.019 o.p.t.) gold (Peatfield, 1981). Later, as a result of a series of corporate reorganizations and takeovers, the ownership of the property passed to Norcen Energy Resources Limited (20%), Falconbridge Limited (60%) and Teck Corporation (20%).

In March, 1994 American Bullion Minerals Ltd. finalized agreements with the respective owners and acquired an eighty percent (80%) interest in and operatorship of the Red-Chris property with Teck Corporation retaining a ten percent participating interest and ten percent carried net profits interest in the property. American Bullion Minerals Ltd. retained Mr. C. M. Rebagliati to evaluate the exploration data and prepare a report on the property. Based upon the past drilling results, he calculated a possible combined geological resource within the two known zones of 136 million tonnes grading 0.38 percent copper and 0.25 gram gold per tonne at a cutoff grade of 0.20 percent copper. This resource hosted higher grade core zones of approximately 37 million tonnes grading 0.67 percent copper and 0.45 gram per tonne gold (Rebagliati, 1994). An aggressive exploration program, including 15,000 metres of diamond drilling, to upgrade and delineate the property-wide mineralization was recommended by Rebagliati (1994).

On June 15th field exploration personnel were mobilized to the property. During the following four and one-half months an exploration program was undertaken, including: preparation of orthophotogrammetic topographic plans; establishment of a metric survey control grid; land surveying; mineral claim staking; soil geochemical sampling and analyses; geophysical surveying (ground magnetics, Very Low Frequency electromagnetics and induced polarization surveys); camp and logging facilities construction; HQ- and NQ-core diamond drilling; drill sample analyses; base-line environmental studies; and petrographic studies. Fifty-eight HQ- and/or NQ-core holes, totalling 21,417.08 m. or 70,266 ft., were drilled. The writer supervised this program from August 5th until its completion on November 7th, and subsequently prepared this report.

This report describes the location, access, ownership, claim holdings, exploration history and geology of the Red-Chris property. It also documents the results of the 1994 exploration program which was conducted by American Bullion Minerals Ltd. The writer has also included recommendations and cost estimates for further detailed exploration of the property. The results of this proposed work should be directed at completing a preliminary feasibility study of the Red-Chris deposit during 1995.

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

AMERICAN BULLION MINERALS LTD.
Vancouver, British Columbia, Canada

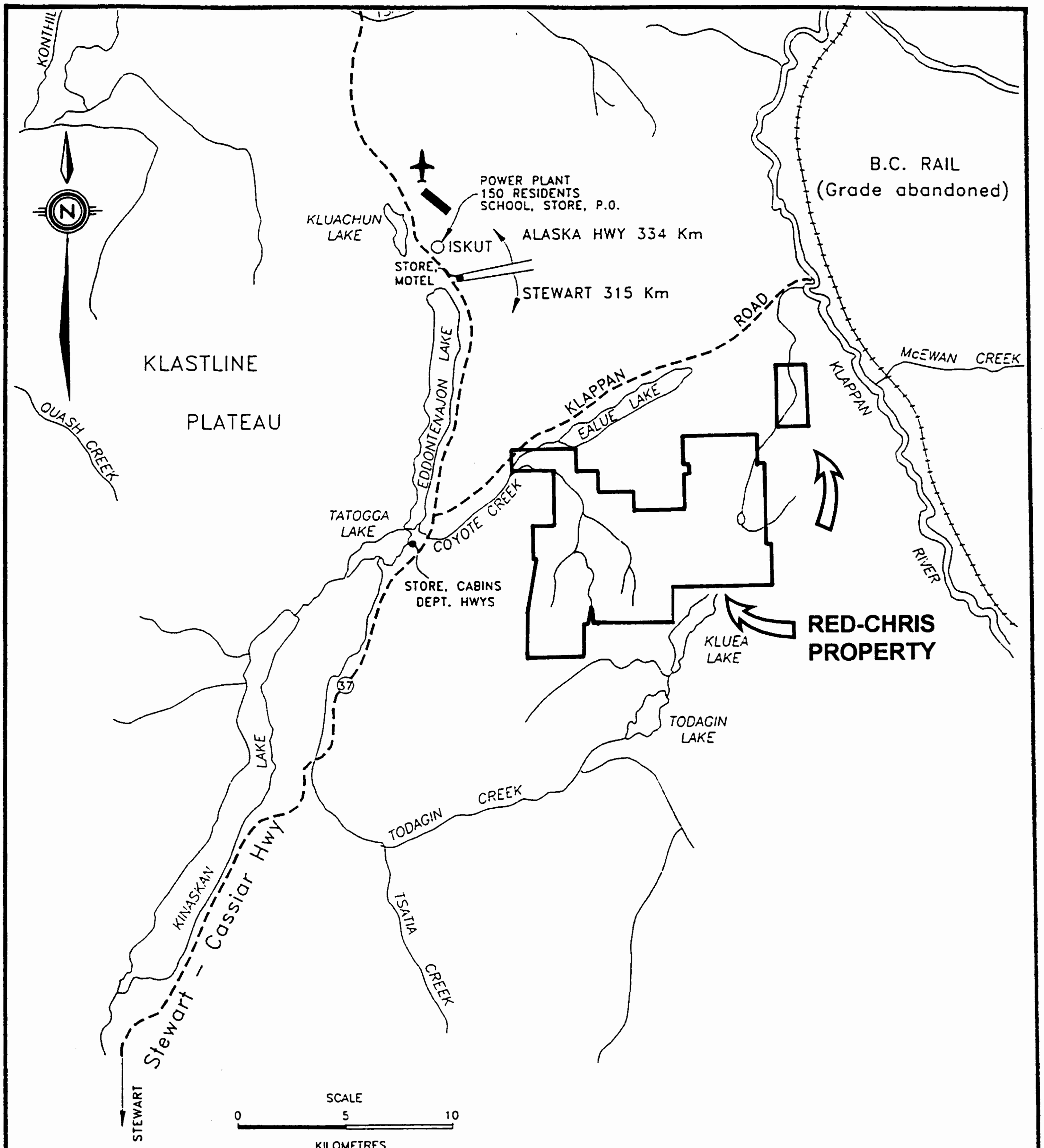
LOCATION MAP

RED-CHRIS PROPERTY
LIARD MINING DIVISION
BRITISH COLUMBIA, CANADA

DATE: FEB., 1995	SCALE: AS SHOWN
DRAWN BY: J. M.	FIGURE NO. 1

PROFESSIONAL PROVINCE OF J. D. Blanchflower BRITISH COLUMBIA GEOSCIENTIST

TO ACCOMPANY REPORT BY J. D. BLANCHFLOWER, P. GEO.



After Rebagliati, 1994

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

AMERICAN BULLION MINERALS LTD.
Vancouver, British Columbia, Canada

REGIONAL MAP

RED-CHRIS PROPERTY
LIARD MINING DIVISION
BRITISH COLUMBIA, CANADA

DATE: FEB. 1995	SCALE: AS SHOWN
DRAWN BY: J. M.	FIGURE NO. 2

PROFESSIONAL PROVINCE OF J. D. Blanchflower BRITISH GEOSCIENTIST

TO ACCOMPANY REPORT BY J. D. BLANCHFLOWER, P. GEO.

GENERAL DESCRIPTION

Location

The Red-Chris property is located on the north-facing Todagin Plateau which is situated between Ealue and Kluea Lakes, approximately 20 kilometres southeast of the village of Iskut, 80 kilometres south of Dease Lake, or 190 kilometres north of the deep seaport of Stewart, in northwestern British Columbia, Canada. Its geographic coordinates are centred at latitude 57° 42' North by longitude 129° 47' West (N.T.S. map-sheet 104H/12W) within the Liard Mining Division (see Figures 1 and 2).

Access

The property is readily accessible with helicopter support from either the gravel Coyote Creek-Ealue Lake road which is situated north of the property, or from several landing sites along Highway 37 (Stewart-Cassiar Highway) from the village of Iskut southward to Tatogga Lake. The Coyote Creek-Ealue Lake road was constructed in the mid-1970's to connect Highway 37 at Tatogga Lake with the now-abandoned B.C. Rail grade that was being constructed at the time. It is a seasonal gravel road but moderately-well maintained by the local B.C. Ministry of Highways contractor.

There is a rough bulldozer tote trail to the centre of the property which joins the Coyote Creek-Ealue Lake road just west of Ealue Lake, approximately 8 kilometres west of Highway 37. This trail crosses two drainages, and is very steep and muddy in places. It was constructed by Texasgulf Inc. in the 1970's to mobilize heavy equipment to the property and it was utilized again in 1994 by American Bullion Minerals Ltd. for the same purposes. However, it is not recommended for vehicle access without considerable upgrading.

The village of Iskut is approximately 315 kilometres by road northeast of the town of Stewart, or 82 kilometres south of the settlement of Dease Lake. There are regularly-scheduled commercial airline flights that service Dease Lake from either Terrace or Smithers. There is also a gravel airstrip situated two kilometres north of the village of Iskut, adjacent to Highway 37, which could be utilized for DC-3 aircraft but there are no regularly-scheduled flights here. Various helicopter charter companies maintain seasonal bases at Dease Lake, Bob Quinn, Watson Lake and Stewart.

There are several resorts and motels situated along Highway 37 between Iskut and Tatogga Lake that provide seasonal accommodation and meals to tourists and local workers.

Property and Ownership

The subject property covers approximately 100 square kilometres and is comprised of 120 two-post, 8 fractional and 23 modified grid mineral claims, or 151 mineral claims totalling 396 units; all located within the Liard Mining Division. Figures 1, 2 and 3 of this report show the location and configuration of the claim holdings, and Table 1 documents all of the pertinent claim data.

In 1993 the ownership of the Red-Chris property was subdivided between Falconbridge Limited (60%), Norcen Energy Resources (20%) and Teck Corporation (20%). American Bullion Minerals Ltd. negotiated agreements with these owners to acquire an eighty percent (80%) interest in the property. These agreements were finalized on January 5th, January 14th and March 1st, 1994 respectively.

Falconbridge Limited and Norcen Energy Resources sold a combined 80 percent interest in the property to American Bullion in consideration for a $138,000 downpayment plus a $130,000 option payment due within 6 months. In addition Falconbridge and Norcen will receive 666,000 units of American Bullion, each unit consisting of 1 share and a 24 month warrant for the purchase of 1 additional share at a price of $1.00 per share. Falconbridge will retain a 1.8% Net Smelter Return Royalty in the property, which may be reduced to 1.0% in consideration for a $1 million payment. Upon commencement of commercial production, American Bullion will issue an additional 150,000 shares (American Bullion Minerals' Press Release #94-1, January 12, 1994).

Teck Corporation retained a 10 percent participating interest and 10 percent carried net profits interest in the property. When American Bullion has prepared a preliminary feasibility report Teck will have the option to provide 100 percent of all future financing required to bring the property to commercial production thereby increasing its interest to a 55% participating interest in the property. American Bullion would then retain a 45 percent carried and non-assessable interest (American Bullion Minerals' Press Release #94-1, January 12, 1994).

On May 20, 1994 American Bullion Minerals Ltd. announced receipt of Vancouver Stock Exchange approval for the above agreements (Press Release #94-8, May 20, 1994).

In January, 1994 American Bullion Minerals Ltd. staked the 'RC-1 to -7' modified grid mineral claims (108 units), and the 'ABM-1 to -6' modified grid mineral claims (85 units) were staked in September. These mineral claims are subject to the same terms and conditions as those existing claims included in above referenced agreements (see Figure 3 and Table I).

Physiography

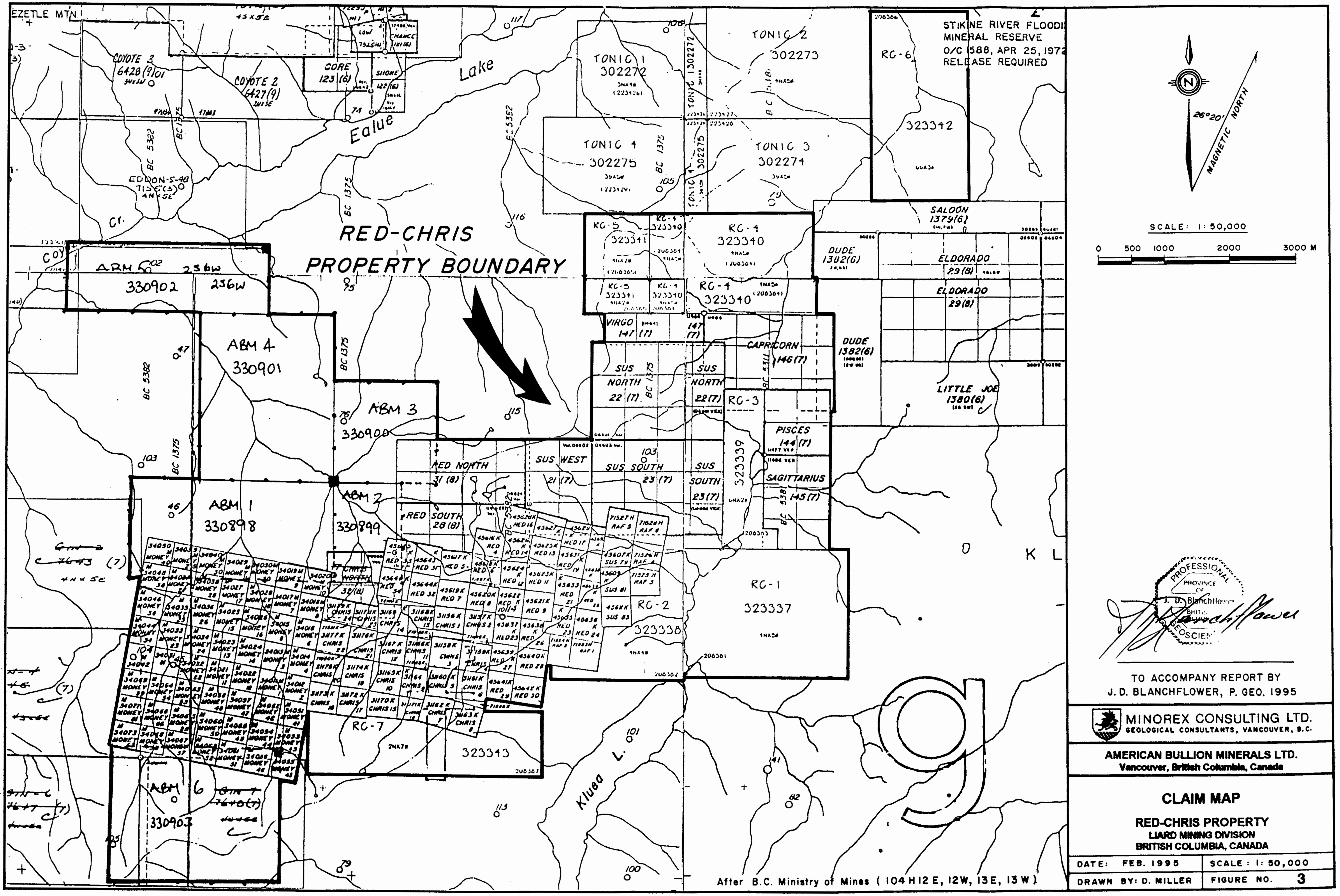
The property is situated on eastern portion of the 'Todagin' upland plateau; a subdivision of the Klastline Plateau which lies along the northern margin of the Skeena Mountains (Ash *et al*, 1995). Most of the claim holdings have relatively low relief; although there are several deeply-incised creek gullies. Elevations range from 1,036 m. (3,400 ft.) along Coyote Creek to 1,676 m. (5,500 ft.) A.M.S.L. on the slopes of Todagin Mountain, but near the Red-Chris copper-gold deposit they are typically 1,500 ± 30 m.

The climatic conditions are typical for the region, although the upland plateaus east of Highway 37 usually have more moderate weather conditions. Mean annual temperatures range from more than 25° C. in July to below -25° in December. Total annual precipitation is in the order of 400 mm. of which 294 mm. is rainfall and 106 mm. is rainfall equivalent (i.e. snow). The Todagin Plateau usually receives the highest snowfalls in December and January, but the total mean annual snowfall is only in the order of 117 cm.

Bedrock exposures are generally absent in areas of low to even moderate relief within the central portion of the property and in the valley bottoms. There is, however, abundant outcrop along the higher-relief drainages and along mountainous ridges. Most of the low-relief areas of the Todagin Plateau are extensively covered by several metres of glacial till comprising a basal limonitic sand, gravel and boulder layer and overlying black organic silt. Vegetation on the plateau is dominated by low shrub (buckbrush), grass and moss. Within the eastern drainages and valley bottoms there are several varieties of conifer and deciduous trees; including balsam, fir, cedar, spruce and aspen.

Within the region there are several potential sources of electrical power for a possible mining and milling operation on the property. According to Rebagliati (1994), they include: 1) extending the B.C. Hydro transmission line from Stewart; 2) extending the powerline being considered for the impending mine development at Kemess (see Figure 1); 3) constructing a coal-fueled thermal-electric plant at the Groundhog coal fields, near Mt. Klappan; and 4) a diesel-fueled generating plant on site.

Any future mining operation on the property would probably utilize the paved Highway 37 which is the main access route from the Terrace area to Stewart, Iskut, Dease Lake and Watson Lake. The town of Stewart has deep-water port facilities for vessels in the 65,000 DWT capacity range and is well located to supply Pacific Rim copper smelters in North America and Asia (Rebagliati, 1994). There are bulk fuel facilities at Terrace and Stewart that currently supply local resource industries.


RED-CHRIS PROPERTY BOUNDARY
STIKINE RIVER FLOODING MINERAL RESERVE O/C 588, APR 25, 1972 RELEASE REQUIRED
MAGNETIC NORTH
26°20'
SCALE: 1: 50,000
0 500 1000 2000 3000 M
Ealue Lake
Klua L.
TONIC 1 302272
TONIC 2 302273
TONIC 3 302274
TONIC 4 302275
RC-1 323337
RC-2 323338
RC-3 323339
RC-4 323340
RC-5 323341
RC-6 323342
RC-7 323343
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ABM 2 330899
ABM 3 330900
ABM 4 330901
ABM 5 330902
ABM 6 330903
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RED SOUTH 28 (8)
SUS WEST 21 (7)
SUS SOUTH 23 (7)
SUS NORTH 22 (7)
VIRGO 147 (7)
CAPRICORN 146 (7)
PISCES 144 (7)
SAGITTARIUS 145 (7)
DUDE 1382(6)
ELDORADO 29 (8)
LITTLE JOE 1380(6)
SALOON 1379(6)
CORE 123 (6)
COYOTE 2
COYOTE 3
After B.C. Ministry of Mines (104 H 12 E, 12 W, 13 E, 13 W)
TO ACCOMPANY REPORT BY J. D. BLANCHFLOWER, P. GEO. 1995
MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.
AMERICAN BULLION MINERALS LTD.
Vancouver, British Columbia, Canada
CLAIM MAP
RED-CHRIS PROPERTY
LIARD MINING DIVISION
BRITISH COLUMBIA, CANADA
DATE: FEB. 1995
SCALE: 1: 50,000
DRAWN BY: D. MILLER
FIGURE NO. 3

TABLE I

MINERAL CLAIM DATA

Claim No.	Units	Record No.	Tenure No.	Record Date	Expiry Date
ABM-1	18	330898	227107	Sep 11, 1994	Sep 11, 2005
ABM-2	6	330899	227108	Sep 11, 1994	Sep 11, 2005
ABM-3	9	330900	227109	Sep 11, 1994	Sep 11, 2005
ABM-4	20	330901	227196	Sep 12, 1994	Sep 12, 2005
ABM-5	12	330902	227197	Sep 13, 1994	Sep 13, 2005
ABM-6	20	330903	213345	Sep 13, 1994	Sep 13, 2005
Capricorn	12	146	221682	July 7, 1976	July 7, 2004
Chris North	4	32	221642	Aug 13, 1975	Aug 13, 2004
Chris 01	1	31156	226748	Aug 24, 1968	Aug 24, 2004
Chris 02	1	31157	226749	Aug 24, 1968	Aug 24, 2004
Chris 03	1	31158	226750	Aug 24, 1968	Aug 24, 2004
Chris 04	1	31159	226751	Aug 24, 1968	Aug 24, 2004
Chris 05	1	31160	226752	Aug 24, 1968	Aug 24, 2004
Chris 06	1	31161	226753	Aug 24, 1968	Aug 24, 2004
Chris 07	1	31162	226754	Aug 24, 1968	Aug 24, 2004
Chris 08	1	31163	226755	Aug 24, 1968	Aug 24, 2004
Chris 09	1	31164	226756	Aug 24, 1968	Aug 24, 2004
Chris 10	1	31165	226757	Aug 24, 1968	Aug 24, 2004
Chris 11	1	31166	226758	Aug 24, 1968	Aug 24, 2004
Chris 12	1	31167	226759	Aug 24, 1968	Aug 24, 2004
Chris 13	1	31168	226760	Aug 24, 1968	Aug 24, 2004
Chris 14	1	31169	306684	Aug 24, 1968	Aug 24, 2004
Chris 15	1	31170	226761	Aug 24, 1968	Aug 24, 2004
Chris 16	1	31171	226762	Aug 24, 1968	Aug 24, 2004
Chris 17	1	31172	226763	Aug 24, 1968	Aug 24, 2004
Chris 18	1	31173	226764	Aug 24, 1968	Aug 24, 2004
Chris 19	1	31174	226765	Aug 24, 1968	Aug 24, 2004
Chris 20	1	31175	226766	Aug 24, 1968	Aug 24, 2004
Chris 21	1	31176	226767	Aug 24, 1968	Aug 24, 2004
Chris 22	1	31177	226768	Aug 24, 1968	Aug 24, 2004
Chris 23	1	31178	226769	Aug 24, 1968	Aug 24, 2004
Chris 24	1	31179	226770	Aug 24, 1968	Aug 24, 2004
Cougar 1	1	71985	228048	Aug 29, 1974	Aug 29, 2004
Cougar 2	1	71986	228049	Aug 29, 1974	Aug 29, 2004
Cougar 3	1	71987	228050	Aug 29, 1974	Aug 29, 2004
Cougar 4	1	71988	228051	Aug 29, 1974	Aug 29, 2004
Cougar 5	1	71989	228052	Aug 29, 1974	Aug 29, 2004
Cougar 6	1	72180	228060	Aug 29, 1974	Aug 29, 2004
Cougar 7	1	71990	228053	Aug 29, 1974	Aug 29, 2004

TABLE I

MINERAL CLAIM DATA

Claim No.	Units	Record No.	Tenure No.	Record Date	Expiry Date
Cougar 8	1	71991	228054	Aug 29, 1974	Aug 29, 2004
Money 01	1	34011	226792	Sep 30, 1968	Sep 30, 2004
Money 02	1	34012	226793	Sep 30, 1968	Sep 30, 2004
Money 03	1	34013	226794	Sep 30, 1968	Sep 30, 2004
Money 04	1	34014	226795	Sep 30, 1968	Sep 30, 2004
Money 05	1	34015	226796	Sep 30, 1968	Sep 30, 2004
Money 06	1	31016	226797	Sep 30, 1968	Sep 30, 2004
Money 07	1	34017	226798	Sep 30, 1968	Sep 30, 2004
Money 08	1	34018	226799	Sep 30, 1968	Sep 30, 2004
Money 09	1	34019	226800	Sep 30, 1968	Sep 30, 2004
Money 10	1	34020	226801	Sep 30, 1968	Sep 30, 2004
Money 11	1	34021	226802	Sep 30, 1968	Sep 30, 2004
Money 12	1	34022	226803	Sep 30, 1968	Sep 30, 2004
Money 13	1	34023	226804	Sep 30, 1968	Sep 30, 2004
Money 14	1	34024	226805	Sep 30, 1968	Sep 30, 2004
Money 15	1	34025	226806	Sep 30, 1968	Sep 30, 2004
Money 16	1	34026	226807	Sep 30, 1968	Sep 30, 2004
Money 17	1	34027	226808	Sep 30, 1968	Sep 30, 2004
Money 18	1	34028	226809	Sep 30, 1968	Sep 30, 2004
Money 19	1	34029	226810	Sep 30, 1968	Sep 30, 2004
Money 20	1	34030	226811	Sep 30, 1968	Sep 30, 2004
Money 21	1	34031	226812	Sep 30, 1968	Sep 30, 2004
Money 22	1	34032	226813	Sep 30, 1968	Sep 30, 2004
Money 23	1	34033	226814	Sep 30, 1968	Sep 30, 2004
Money 24	1	34034	226815	Sep 30, 1968	Sep 30, 2004
Money 25	1	34035	226816	Sep 30, 1968	Sep 30, 2004
Money 26	1	34036	226817	Sep 30, 1968	Sep 30, 2004
Money 27	1	34037	226818	Sep 30, 1968	Sep 30, 2004
Money 28	1	34038	226819	Sep 30, 1968	Sep 30, 2004
Money 29	1	34039	226820	Sep 30, 1968	Sep 30, 2004
Money 30	1	34040	226821	Sep 30, 1968	Sep 30, 2004
Money 32	1	34042	226822	Sep 30, 1968	Sep 30, 2004
Money 34	1	34044	226823	Sep 30, 1968	Sep 30, 2004
Money 36	1	34046	226824	Sep 30, 1968	Sep 30, 2004
Money 38	1	34048	226825	Sep 30, 1968	Sep 30, 2004
Money 40	1	34050	226826	Sep 30, 1968	Sep 30, 2004
Money 41	1	34051	226827	Sep 30, 1968	Sep 30, 2004
Money 42	1	34052	226828	Sep 30, 1968	Sep 30, 2004
Money 43	1	34053	226829	Sep 30, 1968	Sep 30, 2004

TABLE I

MINERAL CLAIM DATA

Claim No.	Units	Record No.	Tenure No.	Record Date	Expiry Date
Money 44	1	34054	226830	Sep 30, 1968	Sep 30, 2004
Money 45	1	34055	226831	Sep 30, 1968	Sep 30, 2004
Money 46	1	34056	226832	Sep 30, 1968	Sep 30, 2004
Money 47	1	34057	226833	Sep 30, 1968	Sep 30, 2004
Money 48	1	34058	226834	Sep 30, 1968	Sep 30, 2004
Money 49	1	34059	226835	Sep 30, 1968	Sep 30, 2004
Money 50	1	34060	226836	Sep 30, 1968	Sep 30, 2004
Money 51	1	34061	226837	Sep 30, 1968	Sep 30, 2004
Money 52	1	34062	226838	Sep 30, 1968	Sep 30, 2004
Money 53	1	34063	226839	Sep 30, 1968	Sep 30, 2004
Money 54	1	34064	306687	Sep 30, 1968	Sep 30, 2004
Money 55	1	34065	226840	Sep 30, 1968	Sep 30, 2004
Money 56	1	34066	226841	Sep 30, 1968	Sep 30, 2004
Money 57	1	34067	226842	Sep 30, 1968	Sep 30, 2004
Money 58	1	34068	226843	Sep 30, 1968	Sep 30, 2004
Money 59	1	34069	226844	Sep 30, 1968	Sep 30, 2004
Money 61	1	34071	226845	Sep 30, 1968	Sep 30, 2004
Money 63	1	34073	306685	Sep 30, 1968	Sep 30, 2004
Pisces	4	144	221680	July 7, 1974	July 7, 2004
Raf 1	1	71523	227970	July 31, 1974	July 31, 2004
Raf 2	1	71525	227971	July 31, 1974	July 31, 2004
Raf 3	1	71524	227972	July 31, 1974	July 31, 2004
Raf 4	1	71526	227973	July 31, 1974	July 31, 2004
Raf 5	1	71527	227974	July 31, 1974	July 31, 2004
Raf 6	1	71528	227975	July 31, 1974	July 31, 2004
RC-1	20	323337	323337	Jan 11, 1994	Jan 11, 2005
RC-2	16	323338	323338	Jan 14, 1994	Jan 14, 2005
RC-3	12	32339	323339	Jan 12, 1994	Jan 12, 2005
RC-4	20	323340	323340	Jan 17, 1994	Jan 17, 2005
RC-5	8	323341	323341	Jan 16, 1994	Jan 16, 2005
RC-6	18	323342	323342	Jan 18, 1994	Jan 18, 2005
RC-7	14	323343	323343	Jan 18, 1994	Jan 18, 2005
Red North	8	31	221641	Aug 13, 1975	Aug 13, 2004
Red South	8	28	221638	Aug 13, 1975	Aug 13, 2004
Red 04	1	45616	227043	Aug 5, 1970	Aug 5, 2004
Red 05	1	45617	227044	Aug 5, 1970	Aug 5, 2004
Red 06	1	45618	227045	Aug 5, 1970	Aug 5, 2004
Red 07	1	45619	227046	Aug 5, 1970	Aug 5, 2004
Red 08	1	45620	227047	Aug 5, 1970	Aug 5, 2004

TABLE I

MINERAL CLAIM DATA

Claim No.	Units	Record No.	Tenure No.	Record Date	Expiry Date
Red 09	1	45621	227048	Aug 5, 1970	Aug 5, 2004
Red 10	1	45622	227049	Aug 5, 1970	Aug 5, 2004
Red 11	1	45623	227050	Aug 5, 1970	Aug 5, 2004
Red 12	1	45624	227051	Aug 5, 1970	Aug 5, 2004
Red 13	1	45625	227052	Aug 5, 1970	Aug 5, 2004
Red 14	1	45626	227053	Aug 5, 1970	Aug 5, 2004
Red 15	1	45627	227054	Aug 5, 1970	Aug 5, 2004
Red 16	1	45628	227055	Aug 5, 1970	Aug 5, 2004
Red 17	1	45629	227056	Aug 5, 1970	Aug 5, 2004
Red 18	1	45630	227057	Aug 5, 1970	Aug 5, 2004
Red 19	1	45631	227058	Aug 5, 1970	Aug 5, 2004
Red 20	1	45632	227059	Aug 5, 1970	Aug 5, 2004
Red 21	1	45633	227060	Aug 5, 1970	Aug 5, 2004
Red 22	1	45634	227061	Aug 5, 1970	Aug 5, 2004
Red 23	1	45635	227062	Aug 5, 1970	Aug 5, 2004
Red 24	1	45636	227063	Aug 5, 1970	Aug 5, 2004
Red 25	1	45637	227064	Aug 5, 1970	Aug 5, 2004
Red 26	1	45638	227065	Aug 5, 1970	Aug 5, 2004
Red 27	1	45639	227066	Aug 5, 1970	Aug 5, 2004
Red 28	1	45640	227067	Aug 5, 1970	Aug 5, 2004
Red 29	1	45641	227068	Aug 5, 1970	Aug 5, 2004
Red 30	1	45642	227069	Aug 5, 1970	Aug 5, 2004
Red 31	1	45643	227070	Aug 5, 1970	Aug 5, 2004
Red 32	1	45644	227071	Aug 5, 1970	Aug 5, 2004
Red 33	1	45645	227072	Aug 5, 1970	Aug 5, 2004
Red 34	1	45646	227073	Aug 5, 1970	Aug 5, 2004
Sagittarius	6	145	221681	July 7, 1976	July 7, 2004
Sus North	12	22	221636	July 15, 1975	July 15, 2004
Sus South	12	23	221637	July 15, 1975	July 15, 2004
Sus West	6	21	221635	July 15, 1975	July 15, 2004
Sus 79	1	45607	227040	Aug 5, 1970	Aug 5, 2004
Sus 81	1	45609	227041	Aug 5, 1970	Aug 5, 2004
Sus 83	1	45611	227042	Aug 5, 1970	Aug 5, 2004
Virgo	3	147	221683	July 7, 1976	July 7, 2004

Total Number of Claims **151**

Total Number of Units **396**

History

Exploration work in the district dates back to the late 1920's when the Klapan Rose copper-gold skarn occurrence was staked between Iskut and Ealue Lake (Newell and Peatfield, 1995). Various prominent gossans along the Coyote Creek valley and those along the gullies draining the Todagin Plateau would have undoubtedly attracted the attention of the early prospectors; however, it was not until much later that the first recorded work was conducted in the vicinity of the current Red-Chris property.

In 1956, Conwest Exploration Limited staked the Windy claims to cover some of the prominent limonitic gossans on the Todagin Plateau. Their work included the drilling of several short x-ray diamond drill holes using pack horses to move the drill rig (B.C.M.M. Annual Report, 1956).

Great Plains Development Company of Canada, Ltd. staked the Chris and Money claims in September, 1968 to cover the headwaters of a stream in the western portion of the present property that yielded a strong copper-in-sillt geochemical anomaly (Rebagliati, 1994). Over the next two years Great Plains Development conducted geological and geochemical surveys along the gully and over the adjacent plateau to delineate the pyrite, chalcopyrite and bornite mineralization exposed in the gully area. The results of this work were tested in 1970 by the drilling of two diamond drill holes totalling 309 metres. Drill hole 70-2 intersected low-grade copper mineralization grading 0.25 percent over a length of 73 metres (McInnis, 1972). Subsequent exploration in 1972 included further geological mapping, geophysical surveying (ground magnetics and induced polarization) and eight diamond drill holes totalling 922 metres. These holes intersected pervasive, argillically-altered intrusive rocks hosting only low, possibly supergene, copper mineralization (Panteleyev, 1973). No gold assaying was undertaken.

As a result of the Great Plains Development's drilling on their property, in July and August, 1970 Silver Standard Mines Ltd. staked the Red and Sus claims north and east of the Chris claims. The next year Silver Standard Mines conducted geological and soil geochemical surveys over a poorly-exposed portion of their claim holdings and tested the results of this work with a bulldozer trenching program near the common boundary of the Red and Chris claim groups. Two trenches exposed low-grade copper mineralization in intrusive rocks. Chip sampling results from one 84-metre section of these trenches graded 0.25 percent copper and a separate 9-metre section returned 0.57 percent copper (McAusland and Rebagliati, 1972).

In early 1973 Ecstall Mining Limited (later Texasgulf Canada Limited), the Canadian subsidiary of Texasgulf Inc., negotiated an option agreement with Silver Standard Mines for the Red claims, and drilled fourteen percussion drill holes, totalling 914 metres, along four sections. Only one-half of these holes intersected low grade copper mineralization. However, two of these holes returned values of 0.55 and 0.41 percent copper over 3.0 and 15.2 metres respectively and these values appeared to be increasing with depth (Newell and Peatfield, 1995). These results were sufficiently encouraging to instigate negotiations between Texasgulf Canada Limited and Great Plains Development for an option on the adjoining claim holdings. The negotiations between Great Plains Development, Silver Standard Mines and Ecstall Mining Limited (Texasgulf Canada Limited) resulted in a 1974 joint venture agreement with the owners pooling their properties on a 20-20-60 basis respectively, and Texasgulf Canada Limited (Texasgulf Inc.) became the operator.

According to Newell and Peatfield (1995), the first 1974 diamond drill hole twinned the 1973 percussion drill hole with the highest grade copper intercept. This diamond drill hole confirmed the percussion drill hole results and intersected mineralized quartz stockwork to a depth of 220 metres. The second hole, 120 metres to the south, did not intersect any significant mineralization but the third, at another 120-metre stepout, intersected a 70-metre section grading 0.55 percent copper and 0.86 gram per tonne gold. Thus, the significance of the Red-Chris discovery was confirmed and during the next three field seasons a total of 67 diamond drill holes (12,284 m.) and 30 percussion drill holes (2,265 m.) were completed. In 1978 and 1980 seven core holes, totalling 1,017 m., were drilled to test for near-surface copper-gold mineralization (Newell and Peatfield, 1995). Thus, the total pre-1994 drilling statistics were as follows (Rebagliati, 1994).

Year	Percussion Drilling		Diamond Drilling	
	Holes	Metres	Holes	Metres
1973	14	914		
1974	10	780	16 BQ	2,265
1975	20	1,481	33 BQ	6,925
1976			18 BQ	3,094
1978			5 BQ	391
1980			2 BQ	626
Total	**44**	**3,175**	**74 BQ**	**13,301**

A total of 5,058 copper assays were documented from the pre-1994 drilling; however, 1,000 samples were not assayed for gold and many of the 1,500 gold assays were conducted on composite samples with intervals up to 15 m. (50 ft.) in length. Copper values from the various drilling programs range from less than 0.01 to 6.60 percent, and gold values ranged from 0.017 gram per tonne (0.0005 o.p.t.) to 8.228 grams per tonne (0.240 o.p.t.). Sixty-eight samples were assayed for silver and the values range from 0.686 to 10.286 grams per tonne (Rebagliati, 1994).

After their early drilling success, Texasgulf Canada Limited conducted property-wide geological, geochemical and geophysical surveying. Bedrock geochemical sampling, utilizing an overburden drill, was carried out in poorly-exposed areas and the results of this work outlined a 3.4-kilometre long, east-northeasterly trending zone with multiple copper-in-bedrock anomalies (>500 p.p.m. copper) that effectively outlined the Red intrusive stock. These samples were later assayed for gold and the results essentially confirmed the anomalous copper-in-bedrock distribution (Peatfield, 1981). According to Newell and Peatfield (1995), magnetometer surveys delineated the intrusive contact of the Red stock with the volcanic and volcaniclastic rocks to the north but did not discriminate between the various intrusive lithologies or the clastic rocks of the Bowser Lake Group to the south. Furthermore, Induced polarization chargeability anomalies crudely outlined the better mineralized zones but were influenced by abundant pyrite mineralization near the intrusive contact.

The results of the Texasgulf exploration work outlined two coalescing, east-northeasterly trending zones of copper-gold mineralization, called the 'Main' and 'East' Zones. Pyrite, chalcopyrite and lesser bornite mineralization occurs spatially- and probably genetically-associated with zones of quartz vein stockwork near the centre of the Red intrusive stock. In 1976, estimated resources of these two zones were 41 million tonnes with an average grade of 0.56 percent copper and 0.34 gram per tonne gold (Newell and Peatfield, 1995). Later reserve calculations assumed a cut-off grade of 0.25 percent copper and a specific gravity of 2.81. They estimated the Main Zone to contain 33 million tonnes grading 0.51 percent copper and 0.27 gram per tonne (0.008 o.p.t.) gold (Newell and Schmitt, 1978) and the East Zone to contain 6.7 million tonnes grading 0.78 percent copper and 0.65 gram per tonne (0.019 o.p.t.) gold (Peatfield, 1981) at a waste : ore stripping ratio of 1.4:1. Using a much higher cut-off grade the two combined zones were estimated to contain 22.3 million tonnes grading 0.75 percent copper and 0.45 gram per tonne gold (Newell and Peatfield, 1995).

According to Newell and Peatfield (1995), "Through a complex series of corporate takeovers and reorganizations, the original interests in the (Red-Chris) joint venture have been acquired by the Noranda Group through its control of Falconbridge Limited and Norcen Energy Resources Limited (the ultimate successor company to Great Plains Development), and by Teck Corporation through Western Copper Holdings Ltd., originally a wholly owned subsidiary of Silver Standard Mines. The majority interest held by Texasgulf was transferred to Kidd Creek Mines Limited when its parent, the Canada Development Corporation, took over all of Texasgulf's Canadian interests in 1981. Falconbridge bought Kidd Creek from the CDC in 1986." Thus, in January, 1994 the ownership of the property was divided been Falconbridge (60%), Norcen Energy Resources (20%) and Teck Corporation (20%).

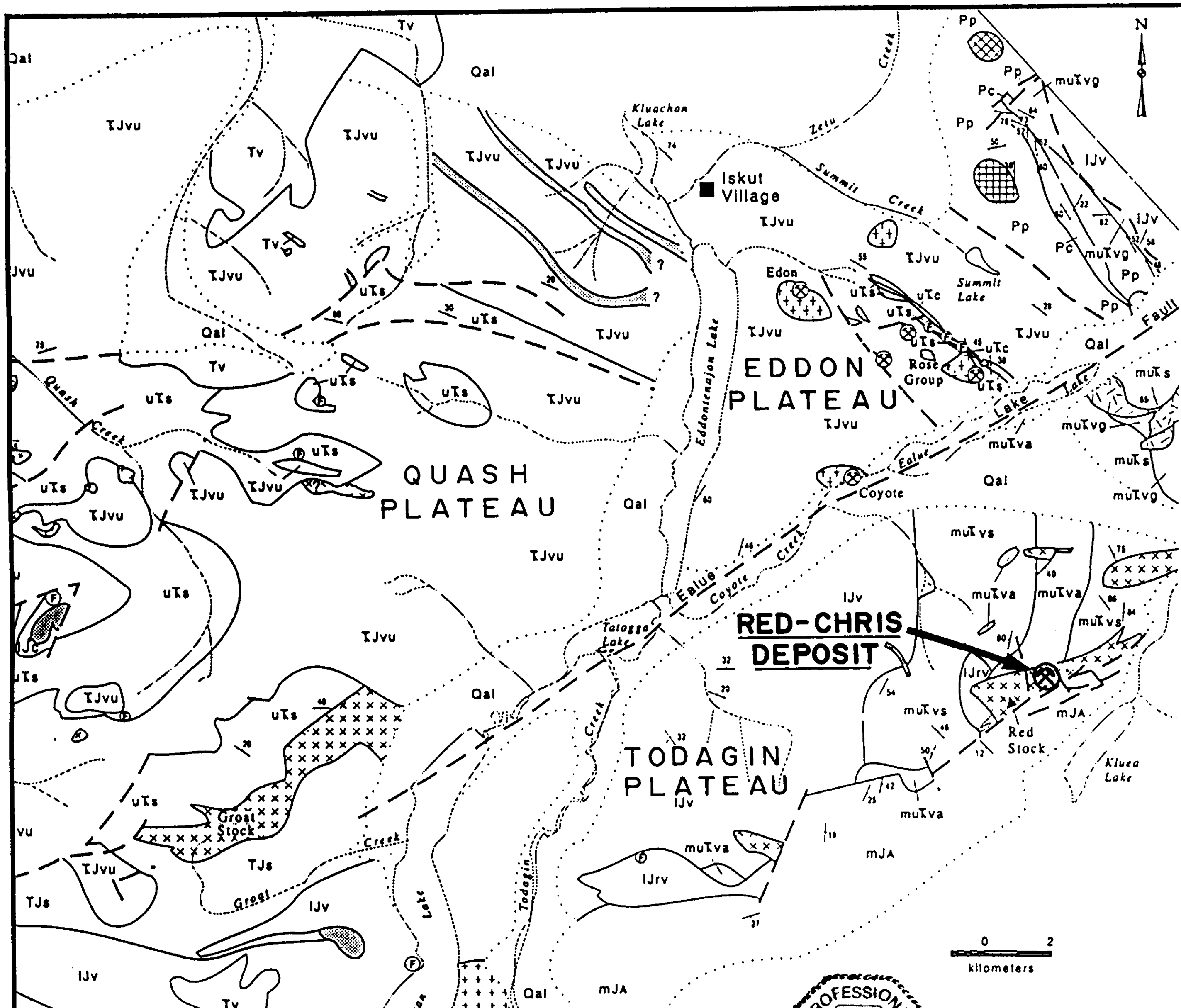
American Bullion Minerals Ltd. retained Mr. C. M. (Mark) Rebagliati, P. Eng., to review and evaluate all of the exploration data and prepare a report. Based upon his review of the documented drilling results, Rebagliati (1994) calculated that "A possible geological resource, at a 0.20 percent copper cutoff grade, of 136 million tonnes (150 million tons) grading 0.38 percent copper and 0.25 grams gold per tonne (0.007 ounces per ton) is indicated. The geological resource contains higher grade core zones containing approximately 37 million tonnes (41 million tons) grading 0.67 percent copper and 0.45 gold per tonne (0.013 ounces per ton). The higher grade core zones are open to depth and potentially along strike. In addition, several indicated mineralized zones as well as geochemical and geophysical targets remain untested." Rebagliati (1994) recommended an aggressive exploration program, including 15,000 metres of diamond drilling, to upgrade and expand the higher grade core zones and explore the rest of the property. The cost of this proposed program was estimated at CAN $3.0 million.

GEOLOGICAL SETTING

The Stikine River area was mapped in 1957 by the Geological Survey of Canada as Operation Stikine (G.S.C. Map 9-1957). Later geological mapping by Souther (1972) of the Telegraph Creek sheet (N.T.S. 104G), which was published at a scale of 1:250,000, and by Gabrielse and Tipper (1984) of the Spatsizi sheet (N.T.S. 104H), which was published at a scale of 1:125,000, have been the regional geological database until quite recently. Recent geological mapping at a scale of 1:50,000 by Read (1984) and Read and Psutka (1990) for the eastern Ealue Lake area (104H/13E and W), and by B.C. Ministry of Energy, Mines and Petroleum Resources (Ash and Fraser, 1994; Ash *et al*, 1995) in the Tatogga Lake area have provided valuable geological information in the vicinity of the subject property. The geological setting and history of the Bowser Lake Group, which crops out south of the Red-Chris deposit, have been documented as part of the multidisciplinary Bowser Basin project (Evenchick, 1991a, b; Evenchick and Green, 1990; Evenchick and Thorkelson, 1993; Green, 1991; Poulton *et al*, 1991; Ricketts, 1990; Ricketts and Evenchick, 1991).

The Red-Chris property geology and copper-gold mineralization have been the subject of thesis research and corporate geological studies. Detailed geological studies include those by Schink (1977) who investigated the petrology, alteration and mineralogy of the deposit for a Master of Science thesis, and Leitch and Elliot (1976) who mapped the detailed geology and mineralization of the property for Texasgulf Inc. Furthermore, geological reports by J. R. Forsythe (1975; 1977a, b; Forsythe and Peatfield, 1974; Forsythe *et al*, 1976), G. R. Peatfield (1980, 1981) and other Texasgulf Inc. geologists have greatly contributed to the understanding of the deposit. Two very recent geological reports on the deposit and its geological setting are by Newell and Peatfield (1995) and Ash *et al* (1995).

The property is situated regionally within the Stikinia Terrane of northern British Columbia. This terrane is dominated by Early Mesozoic and lesser Late Paleozoic island-arc volcanic strata and related subvolcanic intrusions that form a broad northwesterly trending belt along the centre of the province from southern British Columbia into southwestern Yukon Territory, often referred to as the 'Intermontane Belt' (Woodsworth et al, 1991). Stikinia terrane arc rocks have been regionally subdivided into Late Paleozoic Stikine, Late Triassic Stuhini and Early to Middle Jurassic Hazelton Groups. The Late Triassic Stuhini Group rocks are dominated by submarine calc-alkaline basaltic volcanic rocks which are commonly augite-phyric versus those of the Hazelton Group which are dominated by subaerial volcanics that display a broad range in composition from basalt to rhyolite (Souther, 1991).



PROFESSIONAL
PROVINCE OF
B. Blanchflower
BRITISH COLUMBIA
GEOSCIENTIST

Layered Rocks

Tertiary to Recent
- Tv - Edziza olivine basalt
- Qal - glacial till, unconsolidated sediment

Middle Jurassic
- mJA - Ashman Formation; marine clastic sediments

Lower to Middle Jurassic(?)
- lJc - conglomerate, volcanoclastics
- lJv - Andesite volcanic flows, breccias and conglomerate
- lJrv - trachyte to rhyolite flow (may include areas in the SW shown as felsite)

Triassic-Jurassic undivided
- TJvu - massive volcaniclastics, conglomerate and mudstone
- TJs - siltstone, conglomerate

Upper Triassic
- uTc - carbonate
- uTs - volcanic wacke, siltstone

Middle-Upper Triassic(?)
- muTs - siltstone, argillite, minor limestone and chert
- muTvs - volcanic sandstone, siltstone
- muTvg - aphyric green volcanics
- muTva - augite phyric volcanics

Permian Stikine Assemblage
- Pc - carbonate, recrystallized
- Pp - Perman phyllite and greenstone

Plutonic Rocks

Early Jurassic(?)
- Felsite
- Syenite
- Quartz monzonite
- Quartz monzodiorite

Late Triassic(?)
- Biotite-hornblende quartz diorite

Late Paleozoic(?)
- Hornblende granodiorite
- Diorite

- Significant Mineral Occurrance
- Fossil locality (from sources as discussed)

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

AMERICAN BULLION MINERALS LTD.
Vancouver, British Columbia, Canada

REGIONAL GEOLOGY MAP

RED-CHRIS PROPERTY

LIARD MINING DIVISION
BRITISH COLUMBIA, CANADA

DATE: FEB., 1995	SCALE: AS SHOWN
DRAWN BY: D. MILLER	DWG. NO. 4

After Ash *et al*, 1995

TO ACCOMPANY REPORT BY J. D. BLANCHFLOWER, P. GEO.

The Stikinia terrane probably developed as primarily Late Triassic and Early and Middle Jurassic oceanic island-arcs outboard of the ancient North American continental margin (Monger 1984). Island arcs evolved along the western margin of the intervening, Late Paleozoic ocean basin in response to westerly subduction. Early Middle Jurassic arc-continent collision, related to docking of the Stikinia arc with the ancient margin, resulted in southwesterly tectonic emplacement of oceanic Cache Creek terrane rocks above the Stikinia terrane. The uplifted oceanic crust shed clastic flysch sediments southwardly into the newly developed continental margin to form the Bowser Lake Group (Ash *et al*, 1995).

Middle Jurassic (Bathonian to Early Oxfordian) marine clastic sedimentary rocks (Gabrielse and Tipper, 1984; Poulton *et al.*, 1991) of the Bowser Lake Group, underlying the southern portion of the subject property, are assigned to the basal Ashman Formation and comprise siltstone, chert pebble conglomerate and sandstone (Evenchick and Thorkelson, 1993). Sedimentalogical studies indicate that Bowser Lake Group rocks become progressively younger to the south and that deposition was from the north into the tectonically active northern margin of the Bowser Basin (Ricketts, 1990; Ricketts and Evenchick, 1991; Green, 1991).

Within the region there are several isolated outcrops of Miocene or Pliocene olivine basalt flows overlying the Stikinia terrane rocks; a few of which occur on the subject property.

It is evident upon review of published geological works that the early to lower Middle Mesozoic strata of the region has been the subject of much debate by various geologists. According to Ash *et al* (1995),

> "Souther (1972) assigned volcanic rocks north of the Ealue Lake Fault in 104G sheet a Late Triassic age. Those south of the fault he suggested were Middle Jurassic. In the adjoining 104H sheet, Gabrielse and Tipper (1984) assigned rocks underlying the Eddon Plateau a Middle to upper Triassic age. A similar age was suggested for volcanics underlying the western half of the Todagin Plateau, while those to the east were designated as Lower Jurassic. In contrast, Read (1984) grouped volcanic rocks underlying the Eddon Plateau as undivided Triassic-Jurassic strata. He designated one narrow northwest-trending belt of sediments as Upper Triassic with several other areas considered Lower Jurassic.
>
> Wheeler and McFeely (1991) assigned a Lower to Middle Jurassic age to the majority the volcanic rocks with isolated areas considered Late Triassic and Late Paleozoic (Figure 3). More recently Evenchick and Thorkelson (1993) combine all volcanic strata south of the Ealue Lake fault as Triassic-Jurassic undivided with rocks north of the fault separated into both Permian and lower Jurassic volcanic arc assemblages.
>
> Souther (1972) emphasized difficulties in differentiating Upper Triassic from Lower Jurassic volcanic stratigraphy along the eastern part of the 104G Telegraph sheet, he writes, *"In the eastern part of the map area the distinction between Upper Triassic and Lower Jurassic rocks is not so clearly defined. Granitic clasts are sparse or absent and lower Jurassic clastic sediments are similar to Triassic fragmental volcanics from which they are derived."*
>
> Recognition of original volcanic stratigraphy may be further complicated by regional folding and faulting. Foreland fold and thrust belt style tectonics in adjacent Bowser Lake Group rocks to the south suggest that this area of the Skeena Fold Belt has undergone as much as 160 kilometres of northwest shortening (Evenchick, 1991c). Recent mapping of volcanic rocks to the immediate east (Thorkelson, 1988) and west (Evenchick, 1991a) of the current study area have defined thrust faulted contacts, initially interpreted as stratigraphic."

Major regional faulting has affected the local stratigraphy during Middle Cretaceous and Tertiary tectonism. The east-northeasterly trending Ealue Lake Fault is the most prominent structural feature in the vicinity of the subject property. Although not exposed, it has been projected along the Coyote Creek-Ealue Lake Valley (Ash *et al*, 1995). Its presence is evident by contrasting lithologies and styles of alteration on either side. Zones of intense carbonatization with localized areas of ankerite flooding are widespread in rocks only south of the fault (Ash *et al*, 1995). Also, its continuity to the east has been determined for an additional 30 kilometres where it has been designated the McEwan Creek Fault with a south side-down movement sense (Read and Psutka, 1990). There are also similarly-oriented faults along the northern contact of the Bowser Lake Group; one of which is the southside-down normal bounding fault between the Bowser Lake Group rocks and the Red stock near the centre of the property.

There are twenty mineral occurrences recorded within the N.T.S. 104G and 104H map-sheets (MINFILE 104G and 104H). Most appear to be related to high level, subvolcanic dykes and stocks that intrude volcanic and sedimentary rocks throughout the region. Generally, copper mineralization with elevated concentrations of gold and silver is hosted by the intrusions but may also be present in the stratified volcanic and sedimentary rocks marginal to the intrusions. Chalcopyrite most commonly occurs as fracture-controlled veinlets or disseminations associated with quartz stockwork. The Red-Chris property is the only known occurrence that had exploration work in 1994 (Ash *et al*, 1995).

1994 EXPLORATION PROGRAM

The 1994 exploration program was designed and directed to explore, expand and delineate potentially economic mineral resources of the known Red-Chris deposit, both laterally and vertically. It was also aimed at evaluating several of the property-wide exploration targets, utilizing both soil geochemical and geophysical surveying, for future drill testing. Furthermore, the program comprised many of the studies, including environmental, petrographic, metallurgical and preliminary resource estimation, that would be required for a 1995 pre-feasibility report on the property. All of the exploration work was conducted by American Bullion Minerals Ltd. on behalf of the American Bullion Minerals Ltd. and Teck Corporation joint venture.

The originally-proposed 1994 exploration program included: topographic and drill hole surveying, geological mapping, rock and soil geochemical sampling, geophysical surveying, trenching, reclamation work, baseline environmental studies, and 15,000 metres of HQ-core diamond drilling. During the program, the diamond drilling was expanded to over 21,000 metres with concurrent camp construction. The field work commenced on June 15th with mobilization of American Bullion Minerals' field geological personnel to the site, and it was completed on November 7th with the closure of the camp and demobilization of the field personnel. All of the drill core was left stored at the core logging facilities on the property; the field camp was winterized and secured; and the heavy equipment, including a D6E bulldozer, excavator and two Longyear diamond drills, were winterized and left on site.

American Bullion Minerals Ltd. contracted most of the exploration work to various mineral exploration industry contractors who will be documented individually later in this report; however, most of the geological, sampling and camp management duties were carried out by employees of American Bullion Minerals Ltd. Messrs. Mike Phillips, Bill Mann and Brian Thurston, all qualified geologists with considerable exploration experience, were employed by the Company as field geologists. The drill core sampling work was supervised by Mr. Chris Kuntz and drill core splitting, sampling and processing duties were undertaken by several residents of Iskut; all employees of American Bullion Minerals Ltd. In addition to these employees, American Bullion Minerals contracted geological services from Gordon Allen, John Deighton and Jill Pardoe; each a qualified and professional geological consultant. The writer, an employee of Minorex Consulting Ltd., was contracted by American Bullion Minerals in August to supervise the field work and subsequently document the results of the program. Vancouver Island Helicopters Ltd. provided Hughes 500D, Bell 206 and Bell 205 helicopter support for the project.

During its four and one-half month duration the 1994 exploration program included:

1) claim staking (RC-1 to -7 M.G.S. claims (108 units) and ABM-1 to -6 M.G.S. claims (85 units));

2) preparation of orthophotogrammetic topographic plans (1:5,000 and 1:2,000 scales);

3) land surveying (various drill collar, topographic and G.P.S. surveys);

4) establishment of a metric survey control grid (73.75 line-km.);

5) soil geochemical sample collection and analyses (547 samples for gold and 31-element I.C.P.);

6) geophysical surveying (73.75 line-km. ground magnetics, 25.65 line-km. Very Low Frequency electromagnetics and 71.85 line-km. induced polarization surveys);

7) construction of 50-person field camp and core logging facilities;

8) HQ- and NQ-core diamond drilling (58 holes totalling 21,417.08 m. or 70,266 ft.);

9) drill sample analyses (7,476 samples assayed for copper and gold, 908 and 885 duplicate samples assayed for copper and gold respectively);

10) drill sample check-assaying (228 samples for copper and gold);

11) mineral characterization analyses (1,234 samples for 31-element I.C.P.);

12) preliminary acid base accounting analyses (25 widely-distributed and typical drill core samples);

13) base-line environmental studies (hydrology, water quality, meteorology, and fish and wildlife);

14) petrographic studies (34 thin-sections and offcut pairs of various lithologic units); and

15) subsequent collation, compilation and documentation of the results of the program.

This field work and subsequent investigative studies are fully described in the following text.

Mineral Claim Staking

In January, 1994 American Bullion Minerals Ltd. staked seven M.G.S. mineral claims (RC-1 to RC-7), totalling 108 units. These and the subsequently-located claims are subject to the same terms and conditions as those claims included in the agreements between the original property owners and American Bullion Minerals Ltd.

In September, American Bullion Minerals Ltd. contracted various qualified field personnel employed by Coueur Des Bois Ltee. of Whitehorse, Yukon Territory to stake six M.G.S. minerals claims (ABM-1 to ABM-6), totalling 85 units. These claims were staked to cover prospective open ground northeast and southwest of their claim holdings. They also cover the northwestern portions of the tote road route from near its junction with the Coyote Creek-Ealue Lake road. As a result, any later access road upgrading will be adjudicated by the British Columbia Ministry of Energy, Mines and Petroleum Resources.

The location and configuration of these recently-acquired mineral claims are shown on Figures 3, and Table I of this report contains their pertinent claim data.

Topographic Mapping and Drill Hole Surveying

Prior to the field season work, American Bullion Minerals Ltd. contracted Eagle Mapping Ltd. of Port Coquitlam, British Columbia to prepare orthophotogrammetric topographic maps of the central portion of the property at scales of 1:2,000 and 1:5,000. This work utilized 1968 aerial photogrammetry and 1986 controls that are published by Government of British Columbia, and the topographic data reported by McElhanney Surveying & Engineering Ltd. for Texasgulf Inc. (Forsythe, 1977).

In 1976, Texasgulf Inc. contracted McElhanney Surveying & Engineering Ltd. to survey all of their drill holes and most of the claims they staked that year. However, during the preparation of the updated topographic plans Eagle Mapping Ltd. discovered a 93-metre error between the benchmark established by McElhanney Surveying and that calculated by them. Thus, it was recommended by Eagle Mapping Ltd. that American Bullion Minerals Ltd. should conduct regional triangulation surveys from established benchmarks to confirm the onsite benchmark prior to any further drill hole surveying.

ADW Engineering Ltd. of Smithers, British Columbia was contracted to carry regional triangulation surveys and re-establish a topographic benchmark on the property, re-survey all locatable drill hole collars, survey all 1994 drill hole collars, and provide property-wide survey control data for the preparation of detailed and property-wide topographic plans at scales of 1:1,000, 1:2,000 and 1:5,000 respectively. This work was carried out intermittently during the exploration program. On June 21 and 22, the topographic benchmarks were re-established and several of the mineral claim boundaries were surveyed. The various drill hole collar locations, the survey control grid and the field camp facilities were surveyed on August 13 to 15, September 28 to 30, October 9 to 14, and November 5 to 6. During the October 9 to 14 property visit, ADW Engineering personnel surveyed all of the photogrammetric target sites.

An E.D.M. (electrodistamat) surveying instrument was used to both re-establish the topographic benchmarks and survey all of the drill hole collars. A G.P.S. (Global Positioning System) surveying instrument, accurate to within ± 1 metre in geographic positioning and elevation, was utilized at twenty-seven widely-distributed stations to provide topographic control for the revised orthophotogrammetric topographic plans.

The results of the surveying work were delivered to Eagle Mapping Ltd. and compiled by them with recent 1993 aerial photography available from the British Columbia Ministry of Forests. These revised topographic plans (four map-sheets) at a scale of 1:2,000 cover the central portion of the property, including the Red-Chris mineral deposit. The revised topographic control has been plotted on Figures 38 to 40 of this report. The 1994 drill collar locations, provided by ADW Engineering Ltd., have been tabulated with other data and appear on Table II of this report. The 1:1,000-scale topographic plan of the Red-Chris deposit area and a 1:5,000-scale property-wide topographic plan are forthcoming.

Survey Control Grid

The survey control grid that was established by Texasgulf Inc. in 1975 and 1976 is overgrown with thick brush and undergrowth and, of course, it is based on imperial measurements. Thus, a new survey control grid had to be established for drill site control, and geophysical and soil geochemical surveying. American Bullion Minerals Ltd. contracted Coueur Des Bois Ltee. of Whitehorse, Yukon Territory to establish a survey control grid over the central portion of the property by re-cutting the existing baseline and cutting 1-metre wide gridlines at 100-metre intervals due north and south of the baseline. This work was carried out in two stages from July 2 to August 9 and from August 31 to September 21. It was staged because during the intervening time geophysical surveying results indicated that there was a large induced polarization chargeability anomaly at the extreme western limits of the newly-cut grid and it had to be extended prior to further geophysical surveying to delineate this anomaly.

A total of 73.75 line-kilometres of survey control grid was cut, picketed and labelled, including 4.75 line-kilometres (2.95 line-miles) of baselines and 69.00 line-kilometres (42.87 line-miles) of gridlines. The baselines are oriented due east-west (090° - 270°) with perpendicular north-south (000° - 180°) gridlines. The baseline extensions and gridlines were measured by a two-person linecutting crew using a drag chain; they were oriented using a compass or by sight-picketing between visible stations; and they were slope-corrected using a clinometer. The central portion of the baseline was surveyed by ADW Engineering Ltd. personnel using an E.D.M. distamat surveying instrument and survey points were pre-established prior to the linecutting and station picketing. Later, ADW Engineering Ltd. personnel surveyed points along the baselines and gridlines to tie them into the local coordinate system. A magnetic declination of 26.5° East was utilized for control grid linecutting.

All of the baselines and gridlines are marked at 25-metre intervals with cedar lath pickets and they are labelled with their grid coordinates written on aluminum tags that are stapled to the pickets. Each of the pickets are well flagged with pink or orange flagging, as are the intervening cut lines.

In the East and West Gully drainages, the baseline and several of the gridlines had to be offset to avoid extremely steep and rocky slopes. Nevertheless, all of the known exploration targets on the property are now covered by the 1994 survey control grid. The location and configuration of the survey control grid are shown on Figure 38 of this report.

Soil Geochemical Surveying

Soil geochemical sampling was carried out in the extreme western and eastern portions of the survey control grid to evaluate some untested areas and determine whether there was a correlation between copper- and gold-in-soil values in these areas. Previous operators had carried out soil geochemical surveying over portions of their respective claim holdings and a quite thorough basal till sampling program had been undertaken by Texasgulf Inc. in 1976 but several areas remained untested.

Coueur Des Bois Ltee. of Whitehorse, Yukon Territory was contracted in early August to collect five hundred and forty-seven (547) B-horizon soil samples at specific locations on the survey control grid. American Bullion Minerals' field personnel supervised this work to ensure that the samples were correctly collected, bagged and labelled. These samples were delivered to Min-En Laboratories in Smithers for drying and sieving before they were shipped to Min-En Laboratories in North Vancouver for analysis.

All of the soil samples were analysed for gold (Au) and 31-element I.C.P. by professional assayers using established analytical procedures, as described by Min-En Laboratories (1995). After the samples were dried at 95° C. they were sieved to obtain a -80 mesh fraction for analysis. A 0.5 gram sub-sample was digested for 2 hours with an aqua regia mixture and, after cooling, the solution was diluted to standard volume. The resultant solution was then analysed by a Jarrell Ash computer (Inductively Coupled Plasma Spectrometer), and the results for: silver (Ag), aluminum (Al), boron (B), barium (Ba), beryllium (Be), bismuth (Bi), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), iron (Fe), potassium (K), lithium (Li), magnesium (Mg), manganese (Mn), molybdenum (Mo), sodium (Na), nickel (Ni), phosphorus (P), lead (Pb), antimony (Sb), strontium (Sr), thallium (Th), titanium (Ti), vanadium (V), zinc (Zn), gallium (Ga), tin (Sn), tungsten (W) and chrome (Cr) were then reported.

The remaining portion of the sieved sample was fluxed and a silver inquart was added and mixed. These samples were fluxed in batches of 24 assays with a natural standard and a blank. This batch of 26 assays was carried through the whole procedure as described. After cupellation the precious metal beads were transferred into new glassware, dissolved with aqua regia solution, and diluted to volume and mixed. The resulting solutions were analysed on an atomic absorption spectrometer using a suitable standard set. The natural standard fused along with this set must be within 2 standard deviations of its known or the whole set is re-assayed. In addition, ten percent of all assays per printed page are rechecked. Gold values are reported in parts per billion (ppb) with a detection limit of 1 ppb.

The copper- and gold-in-soil geochemical values are plotted at their respective sample locations on Figures 39 and 40 of this report. The multi-element and gold analyses accompany this report as Appendix IX.

Geophysical Surveying

Lloyd Geophysics Inc. of Vancouver, British Columbia was contracted to conduct ground magnetics, Very Low Frequency electromagnetics (VLF-EM) and induced polarization surveys over the control grid area. Although much of this area had already been surveyed by past operators using older instrumentation, this surveying was intended to expand the coverage, infill unsurveyed portions of the grid and provide detailed geophysical results using current technologies. The induced polarization surveying was also conducted to detect much deeper mineralization than that inferred by past exploration. The 1994 geophysical surveying work was carried out by experienced geophysical operators under the supervision of a qualified geophysicist, all employed by Lloyd Geophysics Inc.

1) Ground Magnetics Survey

A total of 73.75 line-kilometres of ground magnetics surveying was carried out between September 30 and October 13, 1994. All of the established control grid area was surveyed and detailed surveys of specific geological features were conducted at that time.

The ground magnetics survey utilized a combined Omni Plus combined magnetometer/VLF-EM system that was manufactured by EDA Instruments Inc. of Toronto, Ontario, Canada. The Omni Plus combined magnetometer/VLF-EM system is completely software/microprocessor controlled. A portable proton precision magnetometer measures and stores the location and time of each measurement and computes the statistical error of the reading and stores the decay and strength of the signal being measured. Throughout each survey day a similar base station magnetometer measures and stores in memory the daily fluctuations of the earth's magnetic field. At the end of each day the field data is merged with the base station data in the field computer and automatic diurnal corrections are applied to correct the field data (Lloyd, 1995).

2) Very Low Frequency Electromagnetics (VLF-EM) Survey

The Very Low Frequency electromagnetics (VLF-EM) survey was conducted between August 9 and 14, 1994. A total of 25.65 line-kilometres of surveying was completed over several portions of the control grid area, mainly as profiling over specific geological features. This work was undertaken in attempt to identify major fault zones that might have controlled the copper-gold mineralization, and any abundant sulphide mineralization that might be worthy of immediate drill testing.

The ground magnetics survey utilized a combined Omni Plus combined magnetometer/VLF-EM system that was manufactured by EDA Instruments Inc. of Toronto, Ontario, Canada. The VLF-EM software of the Omni Plus system has the ability to measure both the VLF-EM magnetic and electric fields from at least two different VLF transmitting stations. The system requires no operator orientation of the sensor heads towards the transmitting stations. This is achieved by the use of 3 orthogonal sensor coils rather than the 2 sensor coils used in conventional systems (Lloyd, 1995).

3) Induced Polarization Survey

The induced polarization survey was undertaken in two stages from July 22 to August 7 and from September 30 to October 13. It was staged because the initial induced polarization results indicated that there was a large anomaly at the extreme western limits of the control grid and the grid had to be extended prior to further geophysical surveying to delineate the anomaly.

The induced polarization equipment is a time domain measuring system consisting of: a Wagner Leland/Onan motor generator set, a Mark II transmitter manufactured by Huntec Limited of Toronto, Ontario, Canada, and a 6-channel IP-6 receiver manufactured by BRGM Instruments of Orleans, France. The Wagner Leland/Onan motor generator supplies in excess of 7.5 kilowatts of 3-phase power to the ground at 400 hertz via the Mark II transmitter. The transmitter was operated with a cycle time of 8 seconds and the duty cycle ratio [(time on)/(time on + time off)] was 0.5. This means the cycling sequence of the transmitter was 2 seconds current "on" and 2 seconds current "off" with consecutive pulses reversed in polarity. The IP-6 receiver can read up to 6 dipoles simultaneously. It is microprocessor controlled, featuring automatic calibration, gain setting, SP cancellation and fault diagnosis. To accommodate a wide range of geological conditions, the delay time, the window widths and hence the total integration time is programmable via the keyboard. Measurements are calculated automatically every 2 to 4 seconds from the averaged waveform which is accumulated in memory (Lloyd, 1995).

Appendix X of this report contains the geophysical report prepared by Mr. J. Lloyd, P. Geo., of Lloyd Geophysics Inc. It documents all of the magnetics, VLF electromagnetics and induced polarization surveying undertaken on behalf of American Bullion Minerals Ltd. and contains recommendations for further exploration work based upon the geophysical results.

Field Camp and Core Logging Facilities Construction

Shortly after the mobilization of the field personnel in late June, American Bullion Minerals Ltd. contracted the construction of a core logging facility on the property. J. T. Thomas Diamond Drilling Ltd. of Smithers, British Columbia acted as general contractor for this work and Pellow Construction Ltd. of Smithers, British Columbia carried out the field construction work. A 4- by 25-metre wood-frame building was constructed with a transparent roof and a core splitting room addition; including logging and splitting tables and a separate rock sawing room. Support facilities, including first-aid, emergency shelter, storage and drilling materials storage tent frames, were also constructed at the time.

From late June to early September all of the field personnel were transported to the property twice daily from the Black Sheep Motel, situated 2 kilometres south of the village of Iskut, where they received both lodging and board. In late August, American Bullion Minerals Ltd. decided to construct a field camp on the property after receiving very encouraging drilling results and knowing that poorer flying weather was forthcoming. Thus, on August 31st construction began for a 50-person field camp situated on the eastern slopes of Dynamite Hill, immediately north of the Red-Chris deposit on the east side of the property access road. J. T. Thomas Diamond Drilling Ltd. of Smithers, British Columbia acted as general contractor, and Pellow Construction Ltd., Alpine Plumbing and Heating and Alpine Electrical, each of Smithers, British Columbia, subcontracted the construction work. On September 11th the exploration personnel and construction workers moved into the partially-finished camp and it was finished by September 20th. None of this work delayed the exploration program.

The field camp consists of a combined kitchen-dining-dry building, and sixteen tent frames for sleeping. A buried steel waterline from Camp Creek was installed to provide water to both the camp and the drilling rigs working in the vicinity. Waste waters are disposed of in a buried septic system capable of handling 5,000 gallons per day. The buildings were constructed in such a way that they could be dismantled and removed or disposed of should reclamation of the site ever be required.

Diamond Drilling

J. T. Thomas Diamond Drilling Ltd. of Smithers, British Columbia was contracted to provide equipment and personnel capable of completing a minimum of 15,000 metres of HQ- and/or NQ-core diamond drilling. The drill rigs, rods and support equipment were all mobilized to the property in June via the tote trail from the Coyote Creek-Ealue Lake road. A Caterpillar D6E bulldozer and Caterpillar 210B excavator were utilized to tow the rigs and equipment to the property. They were later used to excavate drill sites, access roads and construction sites, and reclaim those surface disturbances and many of the open trenches dating back to the early 1970's.

Due to encouraging drilling results, the diamond drilling contract was extended in early October. Thus, fifty-eight (58) drill holes were completed during the 1994 exploration program, totalling 21,417.08 metres or 70,266 feet. The first 1994 hole was labelled '75' following the last Texasgulf drill hole which was labelled '74'. Therefore, the 1994 drill holes are numbered consecutively from 75 to 132; all with a '94-' prefix.

Two Longyear skid-mounted, unitized drilling rigs, namely a 'Super 38' and a '44', were used for the entire drilling campaign. The early season drilling recovered HQ-core but after identifying substantial copper-gold mineralization beneath the 1,200 m. elevation all subsequent holes were drilled deeper; often beyond the limits of a Longyear 'Super 38' drill rig to recover HQ-size core. Consequently, several of those holes that were drilled by this rig had to be reduced to NQ-size core for completion. Both the Caterpillar D6E bulldozer and Caterpillar 210B excavator were used at various times and locations to excavate drill sites, construct drilling access roads and move the drill rigs between sites. Due to the prevailing marshy ground conditions, a Hughes 500D helicopter was used extensively to service the drilling rigs, move drilling personnel, and move the drill core to the logging and sampling site.

After the drill core had been delivered to the logging and sampling building its footage markers were converted to metric measurements and each box was properly labelled with its respective hole number, box number and drilling length interval. The core was then logged in detail by qualified geologists utilizing a 'matrix' coding log form; similar to those currently used on other large drilling projects (i.e. Mt. Milligan, Fish Lake and Casino). This data was subsequently inputted into a computerized database for both documentation and computer-assisted drafting (CAD).

Core recovery, rock quality and specific gravity measurements were also recorded. Core recoveries were generally good to excellent with the only reductions being encountered within extremely fractured and deeper faults of the East Zone. Specific gravity measurements were collected at 8-metre intervals for all of the drilling. A total of 2,615 specific gravity measurements were recorded during the program. After logging, specific lithologic units were slabbed with the on-site rock saw and archived for later petrographic studies, and all of the drill core was photographed prior to sampling.

Following the logging procedures, the drill core was split in half lengthwise using a Longyear manual splitter and sampled between drilling length blocks; usually at 3.05-metre or 10-foot intervals. A duplicate sample of every twentieth sample was inserted into the sampling sequence as a 'blind' check-assay sample duplicate. All of the samples were then labelled, double-bagged and transported to a landing and collection site near Highway 37 for shipping to the Min-En Laboratories' preparation facility in Smithers, British Columbia. The remaining one-half of the split core is stored at the logging and splitting site on the property.

A total of 7,476 drill core samples were shipped to Min-En Laboratories in Smithers during the exploration program. Of this total, 7,248 drill core samples were assayed for both copper and gold, and copper and gold geochemical analyses were conducted the remaining 228 drill core samples. All of the drill core samples from the Red-Chris deposit were assayed. However, the core from drill holes 94-115, -117 and -118 that tested an induced polarization anomaly at the extreme eastern limits of the survey control grid was notably barren of visible copper mineralization but quite pyritic. It was decided that this core would be geochemically analysed in case it did contain very finely disseminated copper-gold mineralization.

In Smithers, Min-En Laboratories' personnel dried each sample at 95° C. before crushing it to -1/4 inch. The crushed sample was then reduced to -1/8 inch size by a secondary roll crusher. The whole sample was then split on a Jones Riffle to a statistically-representative 300-gram sample pulp. This sample pulp was then pulverized in a ring pulverizer to 95 percent minus 150 mesh, rolled and bagged. All of the sample pulps were then shipped to the Min-En Laboratories facility in Vancouver, British Columbia for assay. The remaining coarse rejects from the Jones Riffle were bagged, catalogued and stored in a J. T. Thomas Diamond Drilling warehouse at Smithers.

All of the drill core sample pulps were assayed or analysed initially for their copper and gold values. Min-En Laboratories' fire assay procedures for copper use a 0.500 to 2.00 gram subsample which is weighed from the sample pulp for analysis. Each batch of 70 assays has a natural standard and a reagent blank included. The samples are digested using a HNO_3 - $KClO_3$ mixture and when the reaction subsides HCl is added before it is placed on a hotplate to digest. After digestion is complete the flasks are cooled, diluted to volume and mixed. The resulting solutions are analyzed on an atomic absorption spectrometer using the appropriate standard sets. The natural standard digested along with this set must be within 2 standard deviations of its known or the whole set is re-assayed. If any of the assays are more than 1 percent copper they are re-assayed at a lower weight, and 10 percent of the submitted samples are assayed in duplicate (Min-En Laboratories, 1995). During the program, 7,248 drill core samples and 908 duplicate samples (i.e. every tenth sample) were assayed for copper. The former total includes the 5 percent of 'blind' duplicates that were inserted into the sample sequence by the field samplers.

The remaining 228 drill core samples that were geochemically analysed for copper were treated differently. After the samples were dried at 65° C., they were crushed by a jaw crusher and pulverized by a ceramic-plated pulverizer or ring mill pulverizer. The resultant sample was rolled and sieved to obtain a minus 80-mesh pulp for analysis. A 0.5 gram subsample was digested for 2 hours with an aqua regia mixture and, after cooling, the solution was diluted to standard volume. The resultant solution was then analysed for its copper content by atomic absorption methods. The copper values are quoted as parts per million (p.p.m.).

Gold fire assays were conducted on 7,248 drill core samples and 885 duplicate samples (i.e. approximately 10 percent of total). The former total includes the 5 percent of 'blind' duplicates that were inserted into the sample sequence by the field samplers. All gold fire assay procedures at Min-En Laboratories were conducted on one assay ton sample weight. The subsamples were fluxed and a silver inquart was added and mixed. These subsamples were fluxed in batches of 24 assays with a natural standard and a blank. This batch of 26 assays were carried through the whole procedure as described. After cupellation the precious metal beads were transferred into new glassware, dissolved with aqua regia solution, and diluted to volume and mixed. The resulting solutions were analysed on an atomic absorption spectrometer using a suitable standard set. The natural standard fused along with this set must be within 2 standard deviations of its known or the whole set is re-assayed. Likewise, the blank assay must be less than 0.015 g.p.T. The top 10 percent of all assays per printed page were rechecked and reported along with the standard and blank. Gold values are reported in grams per tonne (g.p.T.) with a detection limit of 0.02 g.p.T.

The remaining 228 drill core samples from drill holes 94-115, -117 and -118 were geochemically analysed for their gold values. Each 300-gram subsample was fluxed and a silver inquart was added and mixed. These samples were fluxed in batches of 24 assays with a natural standard and a blank. This batch of 26 assays were carried through the whole procedure as described. After cupellation the precious metal beads were transferred into new glassware, dissolved with aqua regia solution, and diluted to volume and mixed. The resulting solutions were analysed on an atomic absorption spectrometer using a suitable standard set. The natural standard fused along with this set must be within 2 standard deviations of its known or the whole set is re-assayed. In addition, ten percent of all assays per printed page were rechecked. Gold values are reported in parts per billion (p.p.b.) with a detection limit of 1 p.p.b.

After the copper and gold assay results were reported by Min-En Laboratories, selected sample pulps were delivered to Chemex Labs Ltd. in North Vancouver, British Columbia for copper and gold check-assaying. These sample pulps were analysed by the same assay procedures as those undertaken at Min-En Laboratories. Thus, by the end of the program 267 pairs of copper and gold assays were compared for bias and precision. American Bullion Minerals Ltd. contracted Barry W. Smee, of Smee & Associates Consulting Ltd. in Vancouver, British Columbia, to prepare a report on the analytical quality of the assay data using the assay pairs (Smee, 1995).

Appendices I to VII of this report pertain to the diamond drilling work, and the assay and analytical results for the drill core samples. Appendix I of this report contains photocopies of the original geological logs; Appendix II contains all pertinent drill hole location and downhole surveying data; and Appendix III contains the specific gravity data. Appendices IV and V contain photocopies of the original assay certificates received from Min-En Laboratories and Chemex Labs Ltd. respectively. Appendix VI contains the tabulated drill core sampling intervals and assay results. The "Report on Analytical Quality' by B. W. Smee (1995) and supporting check-assay certificates comprise Appendix VII of this report. Table III of this report summarizes the location data and assay results for each of the 1994 drill holes, and plan and cross-sectional plots of the drilling results are shown on Figures 7,8, 10 to 37 of this report.

Reclamation Work

Many of the old trenches, abandoned drill sites and access roads dating back to the early 1970's had only been seeded during Texasgulf's tenure. These surficial disturbances, plus the tote road route, became a reclamation liability for American Bullion Minerals Ltd. when it acquired the property and filed its 1994 Notice of Work with the British Columbia Ministry of Energy, Mines and Petroleum Resources. The Land Management and Policy Branch of the Ministry and American Bullion Minerals Ltd. estimated that there was approximately 10.0 hectares of pre-existing surficial disturbances. American Bullion Minerals Ltd. proposed that it would carry out reclamation work, per the "Reclamation Guidelines for Exploration", for both their proposed 1994 surficial disturbances and much of the pre-existing disturbances as work progressed on the property.

During the field season, all of the old abandoned trenches and many of the abandoned drill sites, in addition to fifty-eight of the sixty-one drill site that were prepared in 1994, were reclaimed in the vicinity of the Red-Chris deposit. These disturbances were backfilled and landscaped with an organic soil layer when the bulldozer and excavator were not servicing the drilling rigs. After the first permanent snowfall, slow-release 13-16-10 fertilizer was spread over all of the reclaimed areas at the rate of 500 kilograms per hectare. Later, an approved 'Canada No. 1 Ground Clover' seed mixture consisting of Creeping Red Fescue (35%), Clover Alsike (35%), Foxtail Meadow (15%) and Alma Timothy (15%) was sown over all of the disturbed areas at the rate of 60 kilograms per hectare. In addition to the reclaimed trenches, drill sites and roads, the fertilizer and seed mixtures were sown over the access roads, helicopter landing site, campsite and septic field, and all untested drill sites. Although these disturbances were not reclaimed because of their anticipated use during the 1995 exploration program, the seeding of these sites was conducted to inhibit possible soil erosion.

The net result of this work was that after preparing 61 drill sites and their access roads, clearing the camp and core logging building sites and burying the camp waterline the unreclaimed disturbance was reduced to 7.19 hectares; including the pre-existing 8-kilometre tote trail, and old trenching and roads in the West Gully area.

Environmental Work

American Bullion conducted both baseline environmental studies and a preliminary acid base accounting study during the 1994 field season. This work was undertaken to, firstly, begin the necessary environmental monitoring work which would be required for early development permitting and, secondly, to identify both positive and negative environmental factors that would have to be addressed prior to completing a pre-feasibility report on the property.

1) Baseline Environmental Studies

Hallum Knight Piesold Ltd. of Vancouver, British Columbia was contracted to conduct an initial baseline environmental monitoring program in the vicinity of the property. It was limited to establishing baseline monitoring programs for site hydrology, water quality and meteorology, and establishing a fish and wildlife observation log. The program was maintained by American Bullion Minerals' field personnel and regularly supervised by qualified chemists and biologists employed by Hallum Knight Piesold Ltd. who visited the site on July 19th to 22nd and October 17th to 19th.

According to the "Summary of 1994 Environmental Program" report which was prepared by Hallum Knight Piesold Ltd. (1995):

"The initial hydrology monitoring program consisted of installation of 1 m. long staff gauges at five selected locations in July, 1994 (H1 to H5), and initial stream flow measurements for calibration at each station. The locations of the hydrology monitoring stations were selected based on proximity to the current exploration area and potential future mine development considerations.

An automatic water level recorder was installed at Station H1 in October 1994 to collect detailed hydrological site data. The recorder was programmed to collect hourly water level readings and proper operation was confirmed through link-up with a lap-top computer. A second set of stream flow calibration measurements were also taken during the October site visit, and the staff gauge at Station H1 was extended to 2 m. in length, as autumn flows were reaching the top of the first staff gauge.

Water levels were recorded by ABM (American Bullion Minerals) site personnel at the five stations every three days between July 21 and November 3, 1994.

Four sets of surface water quality samples were collected monthly between July and October 1994 at nine selected locations at the project site (W1 to W9); the first five water quality stations (W! to W5) correspond to hydrology stations H1 to H5. The locations of the water quality monitoring stations were selected based on proximity to the current exploration area and potential future mine development considerations.

Samples scheduled to be collected at the end of September were collected on October 5, 1994, and samples were not collected in November since the exploration program was closed down for the season early in the month, approximately one week after the October samples had been collected. All samples, including duplicates and travel blanks, were preserved, as appropriate, and submitted to Analytical Services Laboratory (ASL) in Vancouver for analyses of the following parameters:

- physical tests such as conductivity, pH, total dissolved and suspended solids, hardness and turbidity;
- anions such as alkalinity, chloride, fluoride and sulphate;
- nutrients such as ammonia, nitrate and nitrite nitrogen, and ortho-, dissolved and total phosphate;
- total cyanide;
- selected total and dissolved metals, and
- total organic carbon.

A single set of replicate samples was taken during each of the four 1994 sampling events and travel blanks were included three times as components of the water quality QA/QC program. Replicate samples were collected at Site W1 on July 20 and August 31, at Site W4 on October 5, and at Site W5 on October 31, 1994. Travel blanks were submitted on July 20, September 7, and October 5, 1994.

A sample of water from the camp freshwater supply was submitted with the October samples for analysis of most of the aforementioned parameters, and additionally: colour, dissolved silicate, dissolved mercury, and fecal and total coliform bacteria; which are part of the Health and Welfare Canada drinking water guidelines (1993). A sample of deionized water, prepared as a "bottle blank" for the drinking water sample, was analyzed for total metals.

Samples were collected into pre-cleaned, acid-washed containers provided by ASL. Sample containers were rinsed thoroughly with water from the specific sample site three times prior to collection of the final sample, except for cyanide bottles which contained sodium hydroxide (NaOH) preservative and were only filled once. All samples were preserved, as appropriate, and shipped to the project laboratory in coolers packed with ice.

Other than the first set of water quality samples, which were collected by HKP during the July site visit, all subsequent samples were collected by ABM site personnel.

A weather station, including a rain gauge and maximum and minimum temperature thermometers, was established during the July 1994 HKP site visit. Data was recorded twice daily by ABM personnel from July 20 until the 1994 exploration program ended on November 3. Temperature data could not be collected between September 21 and October 1, 1994, as the weather station was blown over and the thermometers were broken during very high winds on September 21, 1994.

A fish and wildlife log was informally established by the site helicopter pilot prior to the HKP visit. A log sheet was provided in the field manual prepared by HKP and was maintained by ABM site personnel until the 1994 exploration program ended in November. The record was not maintained between July 22 and August 22, 1994, as new staff (replacement helicopter pilots) were not made aware that this was part of their duty."

Appendix XI of this report contains the complete "Summary of 1994 Environmental Program" report which was prepared by Hallam Knight Piesold Ltd. This report also contains all of the environmental data that was collected during the field season, including the water quality results for the camp water sample that was collected on October 31, 1994.

The field camp water was found to be well within the Health & Welfare Canada drinking water guidelines (1993) except for a slightly elevated iron content (i.e. 0.350 mg/L versus 0.30 mg/L iron). This is not considered a serious problem; although, it should be addressed next year. It is possible to connect a filtering and ion exchange system to the water supply for the camp which would probably remedy any concerns about the potable water.

2) Acid Base Accounting Study

Twenty-five drill core sample coarse rejects were selected by American Bullion Minerals' personnel from throughout the known mineralization for preliminary acid base accounting analyses. Their selection process was based primarily upon observed quartz stockwork zonation and sulphide mineral content, and their wide distribution, both laterally and vertically. Twenty-five widely-distributed samples displaying barren, very weak, weak, moderate, or strong quartz stockwork zonation comprised the sample set (i.e. five of each stockwork intensity). These samples were analysed by Min-En Laboratories in North Vancouver, British Columbia for their neutralizing potential, acid potential and net neutralizing potential, plus their 31-element geochemistry. The 31-element analyses were conducted using the inductively coupled plasma (ICP) methodology described above.

The results of the acid base accounting analyses were somewhat as expected; high sulphide mineralization has very low to negative net neutralizing potentials and highly carbonatized but weakly mineralized rocks have high net neutralizing potentials. Nevertheless, the results do show that considerably more sampling and analytical work must be undertaken to positively identify the acid base accounting features of this deposit prior to a pre-feasibility study. The tabulated acid base accounting data and analytical results accompany this report in Appendix XII.

Petrographic Study

During the field season, drill core samples were slabbed, labelled and archived for classification and petrographic studies. In November, thin sections of thirty-four (34) selected samples were prepared by Ms. Yvonne Douma at the University of British Columbia, and these thin sections and their slabbed offcut pairs were delivered to Dr. John G. Payne, Ph D., of Vancouver Petrographics Ltd. in Vancouver, British Columbia. Dr. Payne was contracted by American Bullion Minerals Ltd. to undertake petrographic examinations of these specimens and prepare a report documenting his observations.

Appendix XIII of this report contains the complete report prepared by Dr. Payne, dated December, 1994, and his observations are discussed in the 'Geological Results' section of this report.

Mineral Characterization Study

Following receipt of all assay results, the writer selected 20 percent (i.e. every fifth and tenth sample) of the fire-assayed drill core samples for 31-element inductively coupled plasma (I.C.P.) analysis by Min-En Laboratories in North Vancouver, British Columbia. The purpose of these analyses was to determine if there is any other unrecognized economic or detrimental metals associated with the known copper-gold mineralization. Thus, 1,234 samples were analysed for: silver (Ag), aluminum (Al), boron (B), barium (Ba), beryllium (Be), bismuth (Bi), calcium (Ca), cadmium (Cd), cobalt (Co), copper (Cu), iron (Fe), potassium (K), lithium (Li), magnesium (Mg), manganese (Mn), molybdenum (Mo), sodium (Na), nickel (Ni), phosphorus (P), lead (Pb), antimony (Sb), strontium (Sr), thallium (Th), titanium (Ti), vanadium (V), zinc (Zn), gallium (Ga), tin (Sn), tungsten (W) and chrome (Cr).

The Min-En Laboratories' I.C.P. analytical procedures require a 0.5-gram subsample from the original sample pulp. This subsample is digested for 2 hours with an aqua regia mixture. After cooling the sample is diluted to standard volume and the solution is analyzed by a Jarrell Ash ICP computer (Inductively Coupled Plasma Spectrometer). The tabulated analytical data for the 31-element I.C.P. analyses are contained in Appendix VIII of this report.

Mineral Resource Inventory Study

The geological, assay and drilling data were collated, compiled and tabulated into a database format for computer-assisted cross-sectional plotting. The geological and structural features were then digitized and replotted on 30-metre bench plans from an elevation of 1,530 m. to 1,110 m. A.M.S.L. Each of these bench plans were interpreted and the planar geological and structural features were again digitized to produce a three-dimensional geologic block model with blocks measuring 30 metres long by 30 metres wide by 15 metres deep.

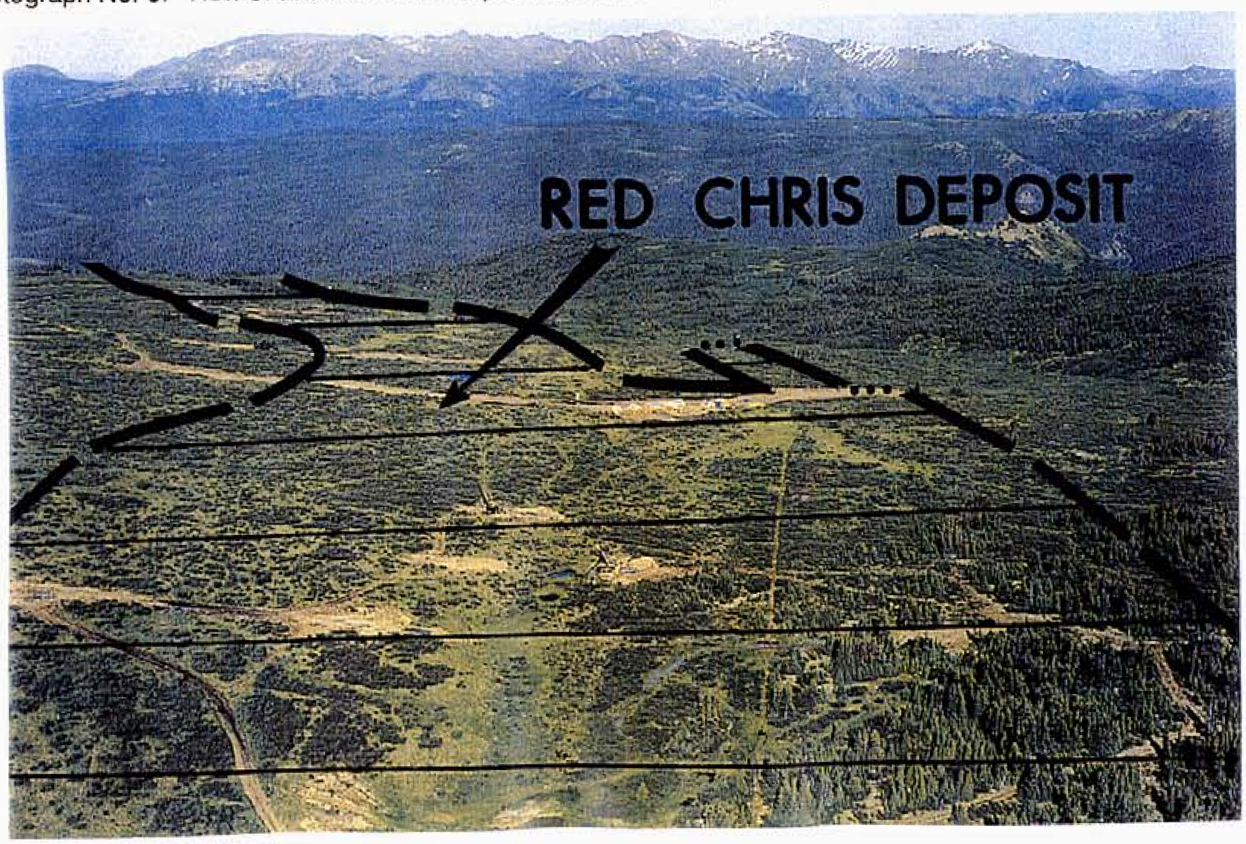
Mr. Gary Giroux of Montgomery Consultants in Vancouver, British Columbia was contracted by American Bullion Minerals Ltd. to calculate the in-situ geological resources of the Red-Chris deposit incorporating all of the geological and assay results. A calculated mean specific gravity of 2.79 was utilized for the resource calculations. Variography indicated a nested anisotropic spherical model for copper with the longest range of 400 metres at azimuth 025°. An isotropic spherical model was indicated for gold with a range of 70 metres (Giroux, 1995). None of the mid-1970's percussion drilling results were used for this study.

The mineral resource inventory report prepared by Giroux (1995) accompanies this report as Appendix XIV.

Photograph No. 1: View of the Red-Chris Deposit Looking Westward.

Photograph No. 2: View of the East Zone Looking Northward.

Photograph No. 3: View of the Red-Chris Deposit and Field Camp Looking Southward.



Photograph No. 4: View of the Red-Chris Deposit Looking Eastward.

DISCUSSION OF 1994 EXPLORATION RESULTS

The 1994 exploration program successfully increased the drill-indicated resources of the Red-Chris deposit. The property has now been tested by 132 diamond and 44 percussion drill holes, or more than 37,893 metres of drilling, and the results of this work indicate that the deposit is still open both laterally and vertically. There are also several other excellent exploration targets on the property that have only received minimal investigation and should be evaluated during the next phase of exploration work.

The results of the program show that the previously-defined 'Main' and 'East' Zones are not discretely mineralized bodies but comprise a continuous zone of copper-gold mineralization that has been locally intruded by post-mineral dykes and slightly displaced by younger faulting. The geology, mineralization and alteration of the Red-Chris deposit are atypical of the characteristics that are generally associated with a strictly calc-alkalic or alkalic suite porphyry copper system. This deposit can best be described as a structurally-controlled, bulk-tonnage copper-gold deposit with hybrid volcanic porphyry copper characteristics.

Most of the central portion of the property has now been adequately surveyed by geophysical and surface geochemical techniques. The results of this work have identified three large geological, geochemical and geophysical exploration targets situated immediately west of the Red-Chris deposit, between the East and West Gullies, and in the extreme western portion of the survey control grid area. These targets are all located within or near the mapped boundaries of the Red stock which appears to be pervasively pyritized and altered over much of its 4.5-kilometre strike length. However, if significant structurally-controlled copper-gold mineralization is discovered in the adjacent volcanic country rocks considerably more surface exploration work will be necessary.

The following text summarizes the geological, geochemical, geophysical and mineral inventory results from the 1994 exploration program. Detailed descriptions of the geophysical survey and resource inventory study have been appendicized with this report.

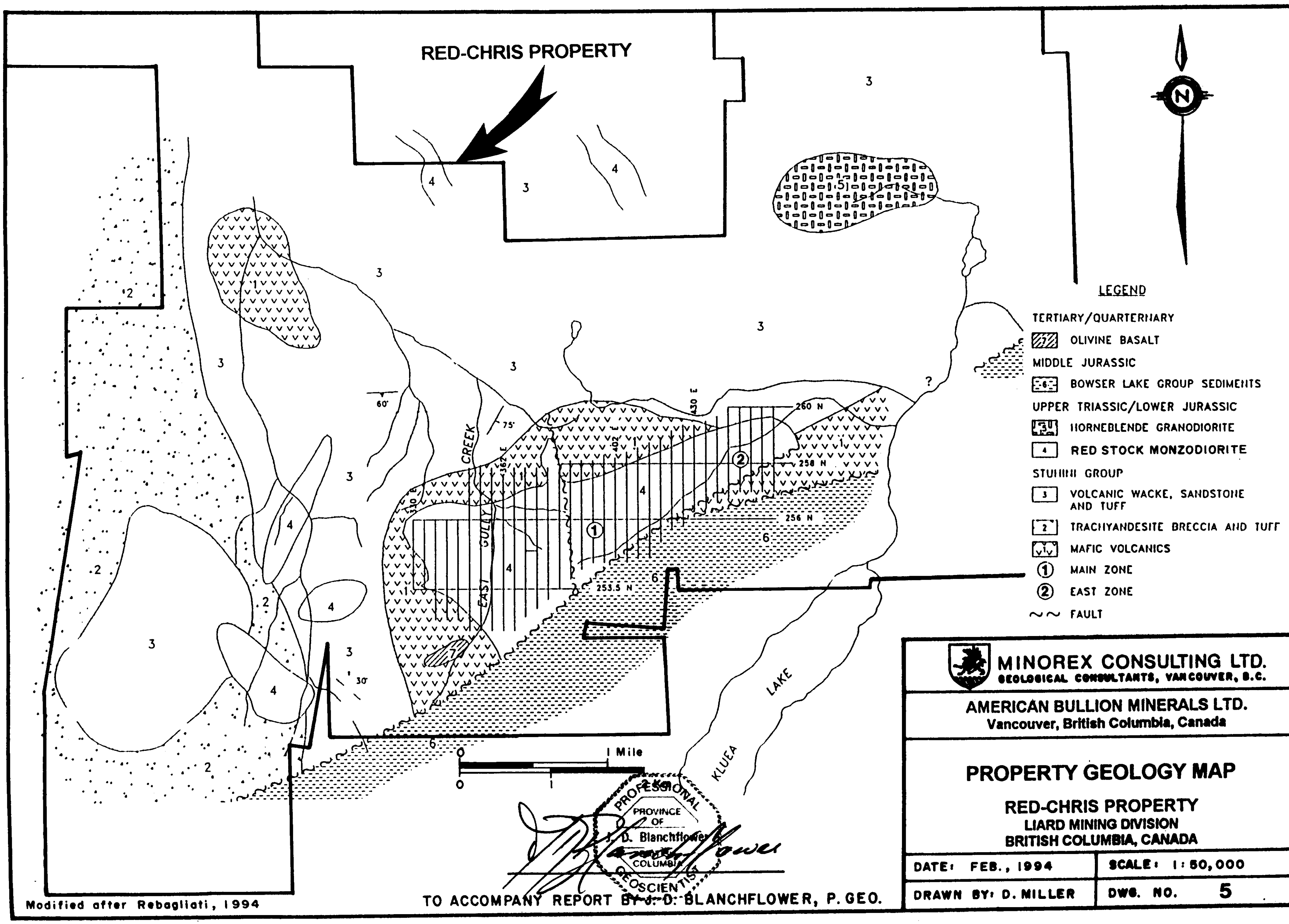
GEOLOGY

Introduction

The property covers the eastern portion of a large east-northeasterly trending, stratigraphically-distinct, fault bounded upland called the 'Todagin Plateau' (Ash *et al*, 1995). Forsythe (1977) refers to this terrain as the 'Red Massif'; perhaps more because of its distinctive topography than its geologic terrane. Within the boundaries of this plateau, stocks and dykes of plagioclase-hornblende porphyritic (quartz) monzodiorite have intruded Middle to Upper Triassic volcanic and intercalated sedimentary rocks and Lower or Middle Jurassic volcanic rocks (Ash *et al,* 1995). The older augite-phyric volcanic and intercalated volcanically-derived sedimentary rocks may be possible lithologic equivalents to the Middle Triassic Tsaybahe Group and/or the upper Triassic Stuhini volcanics (Ash *et al*, 1995). The plutons appear to be partially-unroofed, high-level, hypabyssal intrusions; perhaps comagmatic and coeval with the enclosing dominantly-alkaline arc volcanic rocks. The 'Red' stock within the property is the largest of these intrusions.

The Middle Jurassic Ashman Formation, a basal unit of the Bowser Lake Group, crops out and forms the ridgeline along the southern property boundary. It is comprised of siltstone, chert-pebble conglomerate and sandstone, and occurs in fault contact with all of the aforementioned rocks.

Rare remnant flows of Miocene or Pliocene olivine basalt occur locally capping hills west of the headwaters of the East Gully drainage.


RED-CHRIS PROPERTY
LEGEND
TERTIARY/QUARTERNARY
OLIVINE BASALT
MIDDLE JURASSIC
BOWSER LAKE GROUP SEDIMENTS
UPPER TRIASSIC/LOWER JURASSIC
HORNEBLENDE GRANODIORITE
RED STOCK MONZODIORITE
STUHINI GROUP
VOLCANIC WACKE, SANDSTONE AND TUFF
TRACHYANDESITE BRECCIA AND TUFF
MAFIC VOLCANICS
MAIN ZONE
EAST ZONE
FAULT
EAST GULLY CREEK
KLUEA LAKE
260 N
258 N
256 N
253.5 N
1 Mile
2 Km
MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.
AMERICAN BULLION MINERALS LTD.
Vancouver, British Columbia, Canada
PROPERTY GEOLOGY MAP
RED-CHRIS PROPERTY
LIARD MINING DIVISION
BRITISH COLUMBIA, CANADA
DATE: FEB., 1994
SCALE: 1:50,000
DRAWN BY: D. MILLER
DWG. NO. 5
Modified after Rebagliati, 1994
TO ACCOMPANY REPORT BY J. D. BLANCHFLOWER, P. GEO.
PROFESSIONAL
PROVINCE OF
J. D. Blanchflower
COLUMBIA
GEOSCIENTIST

Lithology

The lithologic units on the property have been described chronologically from oldest to youngest.

1) **Middle to Upper Triassic Volcanic and Sedimentary Rocks (muTva and muTvs)**

Recent geological mapping by Ash and Fraser (1994) has identified an intercalated sequence of augite-phyric volcanic and volcanically-derived sedimentary rocks cropping out between the northeastern slopes of Todagin Mountain and Ealue Lake, underlying most of the northern portion of the property.

The volcanic sequence was informally termed the 'Dynamite Hill' volcanics by Leitch and Elliot (1976). These volcanic rocks crop out immediately north and northwest of the Red stock, along the East Gully to Bowers Creek drainages north to Ealue Lake, and reportedly occur on the southeastern side of the Red stock in fault contact with the Middle Jurassic Bowser Lake Group. These rocks were also intersected in drill holes 94-119 (100600N and 51000E) and 94-122 (100600N and 51100E); however, only DDH 94-119 was sufficiently distant from the Red stock to intersect relatively fresh volcanic rocks.

Ash *et al* (1995) found the volcanics rocks to be dominated by augite-phyric pillowed flows and flow breccias of basaltic composition. Leitch and Elliot (1976) describe these rocks as massive porphyritic basic volcanics with no visible structure; however, Schink (1977) and Forsythe (1976) suggest that they are dominated by relatively massive flows which locally exhibit poorly developed pillow structures and flow banding. They appear on surface to be dark green-coloured, quite massive, and with varying amounts augite and plagioclase phenocrysts in a green chloritic groundmass. Bleaching and pyritization along the Red stock intrusive contact has resulted in a pale green to buff colour, and a more felsic macroscopic colouration (Leitch and Elliot, 1976).

The dark green augite ± plagioclase porphyry volcanics are characterized by 5 to 15 percent, black, euhedral augite phenocrysts, ranging is size from 1 to 2 mm. long. Plagioclase as a phenocryst phase is usually absent, but it may occur as microphenocrysts ranging up to 0.5 to 1 mm. long; usually where augite porphyry phenocrysts are locally abundant (Ash *et al,* 1995). Amygdules from 2 to 5 mm. in diameter commonly comprise from 5 to 15 percent of the volcanic rock and these are filled with amorphous, pink material which has been identified as feldspar (Schink, 1977; Ash *et al,* 1995). The matrix is comprised of very fine-grained chlorite, magnetite and pervasive calcite. The volcanic rocks are pyritized, as fracture infillings and fine-grained disseminations, near the Red stock contact; however, the pyrite mineralization diminishes to less than 1 percent within 120 metres of the contact (Schink, 1977).

The volcanic rocks are locally intercalated with volcanically-derived fine-grained sedimentary rocks, including volcanic wacke (feldspathic sandstone), siltstone and siliceous siltstone, on a scale of metres to tens of metres (Leitch and Elliot, 1976; Ash *et al,* 1995). Immediately north of the volcanic unit and Red stock, the finely-laminated siltstone units dip steeply eastwardly from -45° to -85° and strike north-northwesterly to north-northeasterly (Leitch and Elliot, 1976). Elsewhere, Ash *et al* (1995) report that the siltstones strike northeasterly to southeasterly with steep to moderate northerly dips, and that graded bedding, scour marks and load structures indicate the bedding is "right way up" or locally overturned in some steeply-dipping beds.

The massive, thick-bedded volcanic wacke unit, comprising tuffaceous sandstone and/or feldspathic sandstone, is characterized by abundant fractured, white feldspar laths and green hornblende phenocrysts in a pale green chlorite-sericite rich matrix. It usually contains 1 to 2 percent angular black argillite clasts and occasional quartz grains. The clasts grade locally to tuffaceous volcaniclastics near the volcanic unit (Leitch and Elliot, 1976).

The finely-laminated sedimentary rocks are commonly grey siltstone and black argillite, and lesser limy siltstone or dolomitic breccia. Often the fine-grained rocks display slump structures with a fine-grained wacke matrix. The more siliceous units crop out as resistant units but usually the sediments are recessively eroded.

Recent regional mapping by Ash and Fraser (1994) indicates that the Middle to Upper Triassic volcanically-derived sedimentary rocks are much more widespread than previously reported and that the sedimentary component of the Middle to Upper Triassic strata may dominate. These rocks occur north, east and west of the Red stock mainly as plagioclase-rich volcanic sandstone with interbeds of laminated siltstone and fine sandstone. The volcanic sandstone reportedly weathers grey to tan-brown when it is carbonatized and is light grey on fresh surfaces. It is characteristically massive without obvious sedimentary features, fine- to medium-grained, and equigranular. Angular siltstone fragments, from 3 to 15 mm. long, often account for 1 to 2 percent of rock volume. Massive, coarse-grained, poorly sorted varieties of the sandstone with similar siltstone clasts also occur locally (Ash *et al*, 1995).

2) Upper Triassic Plutonic Rocks

Several stocks and dykes of hornblende-plagioclase porphyritic quartz monzodiorite composition have been mapped within the Todagin Plateau by Leitch and Elliot (1976) and Ash and Fraser (1994) (see Figure 3). These intrusions occur in close proximity to the Red stock and are very similar to it in geometry and texture. They are described by Ash *et al* (1995) as intrusive rocks that weather buff white to light grey, and have distinctive medium- to coarse-grained hornblende and plagioclase phenocrysts randomly oriented in an aphanitic grey groundmass. Plagioclase is the dominant phenocryst phase, occurring as 2 to 5 mm. subhedral tabular grains comprising from 30 to 45 modal percent of the unit. Hornblende grains are less abundant, comprising from 6 to 12 modal percent, they are usually of similar grain size, but also locally form coarser tabular phenocrysts up to 1 cm. long. The groundmass mineralogy comprises microcrystalline, anhedral, granular quartz, carbonate and feldspar. Leitch and Elliot (1976) report identifying microscopic potash feldspar as a significant component of the groundmass mineralogy at the Red stock. However, recent petrographic studies by Payne (1995) indicate that the fine-grained potash feldspar in the groundmass is probably secondary and may be due to potassic metasomatic overprinting.

Red Stock

The Red stock is elongate, irregular in shape, and occupies a major east-northeasterly en echelon fault structure. It is at least 4.5 kilometres long by 300 to 1,500 metres wide, but it may also extend well beyond its exposed boundaries as a buried pluton beneath the partially eroded older volcanic cover. Various intrusive bodies both east and west of the main stock were identified by Leitch and Elliot (1976) but, except for variation of pyrite and hornblende contents, they were apparently identical and are probably apophyses of the larger intrusion (see Figure 4).

According to Leitch and Elliot (1976), the volcanic rocks in contact with Red stock display local thermal metamorphic and metasomatic features, such as moderate hornfelsing, increased pyritization and propylitic alteration, but they have not been foliated. These features suggest that the stock was indeed emplaced hypabyssally and is probably comagmatic with the surrounding volcanic country rocks.

Two compositionally-similar phases of plutonic rocks comprise the stock and these rocks are cut by several post-mineral dykes of dioritic to monzonitic composition. The 'Main Phase' is a medium-grained, weakly- to intensely-altered plagioclase-hornblende porphyritic monzodiorite that hosts all of the known copper-gold mineralization and constitutes approximately eighty to ninety (80-90) percent of the stock. The 'Late Phase' is now thought to comprise both unaltered and barren Main Phase rocks and post-mineral dykes with indistinct flow banded and chilled margins; all of which are remarkably similar in composition and texture to very weakly altered Main Phase rocks. However, the Late Phase rocks are notably fresh to very weakly altered, usually barren of copper-gold mineralization, and represent approximately ten to eighteen (10-18) percent of the stock. The late-stage, post-mineral dykes are commonly porphyritic, range in composition from dioritic to monzonitic, are usually less than 1 to 5 metres wide, and comprise the remaining volume of the stock.

The apparent age of the stock is presently constrained at Latest Triassic. Schink (1977) reported a whole rock K-Ar isochron age of 210 ± 7 Ma, suggesting at least a minimum age for the pervasive stage of quartz-sericite-ankerite alteration affecting the stock (Ash *et al*, 1995). One variety of the post-mineral dykes cutting the stock has a reported biotite K-Ar isochron age of 195 ± 8 Ma or Early Jurassic (Forsythe, 1977).

a) **Main Phase Unit (PPHM)**

The Main Phase intrusive rocks are now thought to have been originally of plagioclase-hornblende porphyritic monzodiorite composition prior to several secondary alteration facies (Ash *et al*, 1995). Schink (1977) and Leitch and Elliot (1976) consider these rocks to be more monzonitic in composition, and Payne (1995) classifies them as hypabyssal porphyritic latites and lesser porphyritic quartz diorites and dacites.

Weathered Main Phase intrusive rocks appear buff white to light grey in colour, but locally they may have a distinct orange-brown colour due to ankerite alteration. Plagioclase forms randomly oriented, anhedral to euhedral phenocrysts averaging 0.5 to 1.5 mm. in size and ranging up to 2.5 mm long. These phenocrysts commonly comprise 25 to 35 modal percent of the unit. Biotite and hornblende phenocrysts are less abundant, often less than 2 percent but occasionally as high as 8 percent. The hornblende phenocrysts are slightly larger than biotite, averaging 1 to 2 mm. for hornblende versus less than 1 mm. for biotite. However, both minerals range up to 3 mm. locally. In more intensely altered rocks the porphyritic texture is often obliterated. The groundmass usually represents 40 to 50 modal percent of the rock, and comprises colourless, anhedral, microcrystalline feldspar and minor quartz with local variations (Schink, 1977). Most of the original plagioclase in the groundmass has been variably altered to sericite-illite-ankerite-kaolinite and potassium feldspar. Apatite, pyrite, sphene and zircon occur in trace amounts.

Payne (1994) subdivided the Main Phase unit into two dominant lithologies. Based upon texture and phenocryst mineralogy, one has anhedral to subhedral plagioclase phenocrysts in a very fine-grained groundmass which is generally void of mafic phenocrysts and the other has both plagioclase phenocrysts and moderately abundant to abundant, euhedral to subhedral hornblende and biotite phenocrysts. Quartz phenocrysts are extremely rare. Small anhedral apatite grains, ranging from 0.1 to 0.2 mm., occur locally. In this latter unit the groundmass is dominated by cryptocrystalline to very fine-grained feldspar; generally too altered to classify its composition. These compositional differences can be accounted for by: slightly different temperature and pressure regimes during intrusion, variable contamination of the melt near its margins, and variations of the intensity and distribution of secondary alteration. Such detailed petrographic subdivisions are macroscopically indistinguishable.

b) **Late Phase Unit (PPHL)**

The Late Phase plutonic unit has also been called the 'Barren Phase' by past geologists (Schink, 1977; Leitch and Elliot, 1976; Forsythe, 1977) and, as its names imply, it is a later phase of the Red stock. This unit may comprise slightly younger comagmatic intrusions that postdate several periods of fracturing, hydrothermal alteration and sulphide mineralization, and/or very weakly altered and barren Main Phase rocks that have been juxtaposed with mineralized Main Phase rocks by later faulting.

The Late Phase intrusions occur as steeply-dipping dyke-like bodies up to 120 meters wide. The largest of these occurs north of the East Zone, between the highly fractured, altered and mineralized Main Phase rocks and the volcanic country rocks. On the southern side of the East Zone there is another section of the Late Phase unit that occurs between the Main Phase unit and the southern bounding fault of the Red stock. This section appears to be discontinuous between the Main and East Zones because of inferred north-northwesterly faulting. Most of the dyke-like bodies of the Late Phase unit occur within the Main Zone and many of these have indistinct foliated and chilled margins along their contacts with the host Main Phase unit. Most of these dykes are less than 20 meters wide and they appear to infill east-west fracture and fault structures that have been later displaced by north-northwesterly faulting. None of the internal Late Phase dyke swarms of the Main Zone occur in the East Zone (see Figures 34 to 37).

Other geologists have suggested that the Late Phase intrusions can be distinguished from the Main Phase rocks on the basis of their colour, grain size, trachytoid texture and fresh appearance (Schink, 1977; Leitch and Elliot, 1976). It was found during the 1994 drilling work that colour and grain size variations between the two phases are much less obvious. A trachytoid texture, although observed in Late Phase, was also occasionally observed in Main Phase and was not diagnostic. The indistinct intrusive contacts between Main Phase and Late Phase rocks occasionally distinguish the two units but they are not always obvious, and they are often obscured by local faulting, brecciation and increased carbonatization over several metres. More commonly, the intrusive contacts are gradational; indicating that these two phases may be comagmatic.

The pyrite : chalcopyrite ratio is quite high in the Late Phase unit (i.e. greater than 20:1), and the copper grades are usually less than 0.05 percent. Pyrite and carbonate veins are common but quartz vein stockwork is very rare. The lack of quartz stockwork and associated secondary alteration undoubtedly accounts for much of the 'fresh' appearance that was described for the Late Phase unit (Schink, 1977). Magnetite and hematite occur locally and this association may also be due to lack of secondary alteration and quartz vein stockwork.

The distinction of the Main and Late Phase units was problematic throughout the 1994 field season. On the basis of mineralogy and composition, the Late Phase unit is virtually indistinguishable from the Main Phase unit. However, in an attempt to develop continuity between bodies, Late Phase and Main Phase units were distinguished on the degree of quartz stockwork veining and copper content. Thus, some barren Main Phase rocks with very weak quartz veining may have been identified as the Late Phase unit.

c) **Main and Late Phase Breccia Units (PBRM, PBRL and PBRX)**

Intrusive breccia zones occur throughout the deposit but especially along the northeastern margins of the East Zone. These zones may range locally from an apparent width of a few metres to 100 metres or more. Their contacts are relatively distinct; marked by an rapid increase or decrease of subangular to angular fragments of plutonic rock. These fragments can vary from less than a centimetre to several metres in diameter (see Figures 11 to 37).

The Main Phase intrusive breccia (Unit PBRM) has Main Phase breccia fragments and a matrix of Main Phase composition. Locally, the breccia fragments may have narrow alteration selvages around their boundaries and the matrix may show evidence of slight chilling near fragment contacts but generally the breccias appear to be auto intrusive breccia produced during the intrusion of the pluton. The Late Phase intrusive breccia (Unit PBRL) is only differentiated by the composition of the breccia fragments and its matrix. Undivided intrusive breccia units that were reported by Texasgulf Inc. without documented compositions and ones that the composition of the fragments and matrix are questionable have been designated as undivided intrusive breccia (Unit PBRX).

d) **Dykes (Units DPFH, DQCA, DLAT, DAND, and DYKE)**

The Red stock and volcanic country rocks are cut by several varieties of late-stage, post-mineral dykes. Leitch and Elliott (1976) document six dyke varieties within the property; four of which cut the Red stock. These include, in order of abundance: Bird's Eye Porphyry Dykes (BEP) that are most abundant within the western portion of the stock; Magnetite Andesite Dykes that trend 080° to 340°; Biotite Porphyry Dykes that trend 045° to 070° and have been reportedly dated by a biotite K-Ar isochron age of 195 ± 8 Ma (Forsythe, 1977); and Amygdaloidal Andesite Dykes that trend east-west. Schink (1977) and Newell and Peatfield (1995) divided these dykes into Amygdaloidal Felsite Dykes (subdivided into two varieties) and Mafic Dykes. Based upon their texture, mineralogy and appearance they have been separated for this report into three varieties, from oldest to youngest: Porphyritic Feldspar-Hornblende-Biotite Dykes (DPFH), Quartz-Carbonate Amygdaloidal Dykes (DQCA), and Mafic Dykes (DMAF). When vague descriptions of dykes in historical exploration data prevented their definitive categorization they were plotted and/or recorded as being latitic (leucocratic; DLAT), andesitic (melanocratic; DAND), or simply 'dyke' (undivided; DYKE). See Figures 11 to 37 of this report for the distribution of these dykes.

i) **Feldspar-Hornblende-Biotite Porphyry Dyke Unit (DPFH)**

These dykes are very similar in composition to the Main and Late Phase units which may indicate that they are late-stage, comagmatic intrusives. However, they are macroscopically distinct and commonly 10 to 15 metres wide. Their colour ranges from buff, pale green, green, orange-brown, and dark orange; depending upon groundmass mineralogy and alteration. Locally, the groundmass may be entirely comprised of potash feldspar.

In thin section, the plagioclase phenocrysts appear as generally euhedral to subhedral, prismatic, 1 to 2 mm, grains representing 20 to 25 modal percent of the rock. They also often occur as blurred grains that blend into the groundmass and show moderate to complete alteration to sericite-illite-ankerite-kaolinite. Hornblende phenocrysts are subhedral to euhedral, and average 1 to 2 mm. long by 0.5 to 1 mm. wide with some as long as 3 to 7 mm. Both hornblende and biotite usually comprises 10 to 12 modal percent of the rock, and are usually altered to muscovite-sericite-chlorite-calcite-ankerite with minor pyrite or magnetite and leucoxene. Mafic phenocrysts in a blurred aphanitic groundmass with an indistinct to observable trachytic texture is a diagnostic characteristic of this rock type. Payne (1995) has classified these dykes as porphyritic latite/andesite and andesite.

ii) **Quartz-Carbonate Amygdaloidal Dyke Unit (DQCA)**

The Quartz-Carbonate Amygdaloidal dykes are the most common dykes cutting the Red stock. They were classified by Schink (1977) as part of a suite of altered porphyry and microporphyry amygdaloidal felsite dykes. Leitch and Elliott (1976) refer to this dyke variety as 'Bird's Eye Porphyry'. Varieties of this unit range from those characterized by spherical amygdules set in a fine- to very fine-grained groundmass, to those with few or no amygdules and variable contents of plagioclase microliths, and to others with few to no amygdules and variable amounts of plagioclase, hornblende, or biotite phenocrysts. No attempt has been made to further subdivide this unit for this report.

This unit commonly cuts Main and Late Phase rocks in the western portion of the stock. These dykes are usually more resistant to weathering than the older intrusive and country rocks and, thus, form ridges 2 to 3 metres wide. They characteristically contain white spherical quartz-carbonate amygdules, up to 5 mm. in diameter, set in a fine- to very fine-grained, buff, tan or grey, felted groundmass that is dominantly comprised of carbonatized plagioclase microphenocrysts. Plagioclase microphenocrysts are euhedral to subhedral, prismatic 0.7 to 1.5 mm. grains. Hornblende and biotite form euhedral to subhedral phenocrysts up to 2 mm. long. The total phenocryst content is variable but generally less than 10 percent. Hydrothermal alteration of the unit is usually moderate to intense, and it is characteristically altered to carbonate, sericite, kaolinite, apatite, quartz, chlorite, pyrite and rutile assemblage with locally abundant magnetite (Schink, 1977).

iii) **Mafic Dyke Unit (DMAF)**

Mafic dykes are medium-grained with local relict euhedral pyroxene and biotite phenocrysts, ranging up to 2 mm. long, in a dark green aphanitic groundmass (Schink, 1977). The pyroxene and biotite phenocrysts and the groundmass are often extensively replaced by actinolite, granular carbonate and chlorite with minor quartz in the relict pyroxene phenocrysts. Fine radial aggregates of dark green tourmaline (schorl) were also described by Schink (1977). Accessory pyrite, rutile, apatite and rare olivine are also present.

3) Lower to Middle Jurassic Volcanic Rocks (Units lJrv and lJv)

Lower to Middle Jurassic trachytic to rhyolitic flows have been mapped at the western end of the Red stock along the Bower Creek drainage (Ash *et al*, 1995). These volcanics were also mapped by Leitch and Elliot (1976) who classified them as "intermediate to acid volcanics and minor pyroclastics". They reported that these volcanics are more varied than the volcanics underlying Dynamite Hill and that the rocks ranged from dark green andesite to orange trachyte and white rhyolite. Minor tuffaceous volcaniclastics are intercalated with the volcanics rocks. They appear to be late-stage extrusives of the Red Stock intrusion (Schink, 1977). Bedding attitudes vary from striking 090° and dipping -45° north near the stock to striking 000° and dipping sub-vertically further to the west (Leitch and Elliot, 1976).

4) Middle Jurassic Ashman Formation (basal Bowser Lake Group; mJ_A)

Marine clastic sedimentary rocks of the Ashman Formation, a basal unit of the Middle Jurassic Bowser Lake Group, underlie the southern property boundary, along the ridgeline between the Red stock and Kluea Lake. The Ashman Formation is comprised of siltstone, chert-pebble conglomerate and sandstone (Evenchick and Thorkelson, 1993). Bowser Lake Group rocks young progressively to the south; indicating that deposition was from the north into the tectonically-active northern margin of the Bowser Basin (Ricketts, 1990; Ricketts and Evenchick, 1991; Green, 1991).

Massive to well-bedded chert-pebble conglomerates occur in fault contact with the southern margins of the Red stock. Repetitively-bedded laminae, varying from 5 to 15 cm. thick, are defined by an upsection reduction in both size and abundance of chert clasts. Local massive conglomerates contain 40 to 60 percent sandstone clasts and/or matrix sandstone. Both laminated and massive conglomerates have subrounded, 0.5 to 3 cm. diameter, light to dark grey or green chert pebbles in a tan brown to grey sandstone matrix.

5) Edziza Volcanics

Near the headwaters of the East and West Gully drainages there are small outcrops of columnar basaltic flows (Schink, 1977). These rocks represent the youngest rocks in the region, probably of Miocene or Pliocene age (Gabrielse and Tipper, 1984).

Structure

The structural setting of the property is dominated by east-northeasterly trending en echelon fault structures. The elongated Red stock occupies and has been displaced by at least one major east-northeasterly trending ancestral fault structure that has been repetitively reactivated during Middle Triassic to Middle Jurassic time. This fault structure and several similarly-oriented faults, such as the one bounding the northern margins of the Bowser Lake Group, are probably subsidiary or parasitic structures related to movements along the larger and east-northeasterly striking Ealue Lake Fault.

Structural evidence for the repeated reactivation fault zone centred on and beneath the Red stock is obvious from the shape of the intrusion, the orientation of its major rock units, and the distribution and displacements of the alteration facies, sulphide mineralization and late-stage dykes. Forsythe (1976) and Meade (in Peatfield, 1975) both concluded that much of the faulting is normal dip-slip in character, typified by hinge movements with the south-side blocks rotating and sliding downward, and that the fault planes seem to be concave to the south. Recent deep drilling results indicate that the faulting may have a more significant lateral component and that the fault planes appear convex to the south.

The Red stock is cut by several en echelon fault zones that probably reflect the youngest tectonic event but appear to be superimposed over the inferred trace of the larger ancestral structure. The most important of these, from an exploration standpoint, is the 'East Zone' fault, as it was called during the

1994 field work. This steeply southeasterly-dipping (-75°) fault zone strikes west-southwesterly (240°) from the eastern end of the Red stock, through the middle of the East Zone, to grid coordinates 100025 North by 50300 East. At this point it appears to bend due westerly and steepen vertically. It then splays into several due east-west, sub-vertical fault structures that cut through the middle of the Main Zone. Both the strong to intense quartz stockwork zones and the associated fracture filling copper-gold mineralization are spatially-related to this structure. In the East Zone, the bornite-rich mineralization has an east-west trend and moderate easterly plunge related to east-west splay faults joining the East Zone fault. On drill cross-sections this mineralization is subvertical to very steeply southerly dipping. In the Main Zone the mineralization has a similar orientation but a more moderate easterly plunge, and the majority of the Late Phase dykes appear to be similarly controlled by these east-west splay faults.

Earlier geological work by Texasgulf personnel (Leitch and Elliot, 1976; Forsythe, 1977) inferred that the East Zone fault dipped steeply north within both the East and Main Zones. Most of their drilling and much of the 1994 diamond drilling was directed southwardly and oriented at -45° to -60° to intersect the inferred steeply north-dipping structurally-related mineralization. It now appears that, except for the eastern portion of the East Zone, most of this mineralization is vertical to sub-vertical and could be tested by either southerly or northerly directed drilling. Furthermore, despite the structural complexity of the deposit much of the youngest faulting and many of the late-stage dykes are remarkably continuous, both laterally and vertically. Less than one-metre wide faults and dykes can be readily traced from multiple drill intercepts in a vertical plane, and usually laterally, over distances of several hundreds of metres.

Another major northeasterly trending fault structure underlies much of the Camp Creek drainage, called the 'South Boundary Fault' (Newell and Peatfield, 1995). It unconformably separates the southern margins of the Red stock and the surrounding Upper Triassic volcanic strata from Middle Jurassic Bowser Lake Group (Ashman Formation) clastic sedimentary rocks. This fault is not exposed on surface; however, geological, geomorphological and drill hole evidence show that it has been responsible for downdropping the Bowser Lake Group rocks and obliquely truncating the southwestern margin of the Red stock. Several east-west splay faults from this structure appear to cut and displace the mineralization of the Main and East Zones and parallel the distribution of the Late Phase dykes in the Main Zone. Thus, it can be assumed that the East Zone and South Boundary fault zones have been repetitively and concurrently active throughout the geologic history of the Red-Chris deposit and that they may have a common buried origin.

The quartz stockwork zones, mineralization and some late-stage dykes in the Main Zone and western end of the East Zone appear to have been locally displaced by a set of north-northwesterly (340°) strike-slip faults; probably conjugate 'scissor' structures related to transcurrent movements along the East Zone and South Boundary fault zones. Following their 1976 drilling campaign, Texasgulf Inc. plotted geological surface and bench plans with regular multiple sets of north-northwesterly and north-northeasterly faults to explain truncations of various geological features they encountered. Recent deep drilling has shown that some of these features are indeed displaced by such faulting but most are quite continuous at depth throughout the deposit. Until more extensive drilling information is available only those conjugate 'scissor' fault sets that have been confirmed by deep drilling are plotted.

The larger fault structures occur as gouge and/or brecciated zones. Gouge zones range from a few centimetres to several metres wide. They are usually grey to black in colour and commonly contain rounded to angular fragments, usually less than 2 cm. in diameter, of altered Main Phase, Late Phase and occasionally mineralized quartz stockwork fragments in a matrix of clay, quartz and carbonate. Fault breccia zones may be several tens of metres wide.

There are local discontinuous healed breccia zones, commonly less than 2 metres wide, throughout the deposit. These zones have angular fragments of Main Phase surrounded by a pyritic fine-grained matrix with green to black tourmaline or buff-coloured carbonate-quartz (Schink, 1977). These healed breccia zones are usually barren of copper-gold mineralization.

The structural setting and geologic history of the Red stock are quite complex; more so than its lithological diversity. Some of the structures are quite obvious, such as the East Zone fault, and others are more subtle, such as the trend of specific dyke units from drilling evidence. Nevertheless, it is obvious to the writer and many of the recent geologists working on this property that the Red-Chris deposit is dominantly structurally-controlled and that the Main Phase rock unit was a readily-fractured host for the subsequent hydrothermally-emplaced alteration and mineralization.

Figures 11 to 33 of this report show the various aforementioned individual and en echelon fault structures in cross-section, and Figures 34 to 37 show the interpreted traces of these structures at various levels throughout the Red-Chris deposit.

Alteration

The mineralogy, distribution and diversity of secondary alteration facies within the Red-Chris deposit have been the subject of several geological studies. Several explorationists have applied typical 'porphyry copper' alteration facies to describe the observed alteration mineralogy. It is the writer's opinion that the Red-Chris deposit does not 'fit' the typical 'porphyry copper' model, be it calc-alkaline or alkaline.

The most extensive and definitive work on the distribution and types of alteration and mineralization on the property was carried out by Schink (1977). He stated in his thesis that the alteration types at the Red-Chris deposit are significantly different from those described in most porphyry copper deposits (Lowell and Guilbert, 1970), and that the difference may reflect the dominance of oceanic water as a surface water component of the hydrothermal fluids, rather than the fresh meteoritic water suggested by isotopic studies of other porphyry deposits. Given his extensive research work, the identification of alteration assemblages during the 1994 field season was based upon those documented by Schink (1977). According to Schink (1977):

> " Two stages of hydrothermal alteration have affected the rocks in the area of mineralization (Red-Chris deposit). An Early stage, consisting of irregular zones of orthoclase-albite-biotite, albite-chlorite-calcite and ankerite-sericite-quartz alteration, resulted from the reaction of a saline, magmatic hydrothermal fluid with wallrock. Early alteration reactions were largely of the base exchange type, and locally involved the introduction of large amounts of CO_2 into the wallrock.
>
> Late alteration, consisting of irregular zones of quartz-ankerite-kaolinite-sericite and quartz-sericite-ankerite-kaolinite alteration, and an extensive zone of quartz-sericite-pyrite alteration, resulted from the reaction of wallrocks with a hybrid hydrothermal fluid formed by the dilution of magmatic fluids with non-magmatic, possibly oceanic, water. The Late alteration reactions were largely of the base leaching type, and resulted in the conversion of feldspars and mafic minerals to sericite, kaolinite and quartz, and in the destruction of carbonate minerals.
>
> An irregular zone of stockwork gypsum veining occurs stratigraphically above the ore zones. The gypsum, which was formed late in the sequence of hydrothermal alteration, may have been deposited from oceanic waters circulating through the upper portions of the Red Stock."

Most of the Main Phase unit of the Red stock has been repeatedly and variably altered by apparently epizonal hydrothermal fluids since its emplacement. The post-mineral Late Phase unit is usually quite 'fresh' to only very weakly altered but locally does appear altered if there are rare late-stage quartz-carbonate fracture filling veins or if it has been confused with the compositionally-similar but poorly altered Main Phase unit. None of the Bowser Lake Group rocks have been affected by any of the pervasive alteration present in the Middle Triassic to Lower Jurassic rocks that are situated north of the South Boundary fault structure.

The following descriptions of the alteration assemblages and their distribution are in chronological order from earliest to latest, based upon the research by Schink (1997) and recent studies.

1) Early Alteration Assemblages

a) Orthoclase-Albite-Biotite (Potassic)

Orthoclase-albite-biotite (potassic) alteration is sporadic and quite limited; perhaps representing only 5 to less than 10 percent of the total alteration area. It often occurs as narrow discontinuous zones a few metres wide that have gradational to sharp contacts with zones of ankerite-sericite-quartz-kaolinite alteration. Where the Main Phase lithologic unit has been affected by orthoclase-albite-biotite alteration the rocks have a light orange-brown to salmon colour and mottled appearance. The porphyritic texture of the rock is usually well preserved but its primary mineral constituents are often completely replaced. Plagioclase phenocrysts are pseudomorphed by hematitic albite and microcrystalline sericite, ankerite and quartz, and the relict hornblende phenocrysts may be pseudomorphed by granular ankerite and chlorite or occasionally altered to fine-grained, felted brown biotite. Rare primary biotite phenocrysts are replaced by pseudomorphic muscovite with minor ankerite. The groundmass is flooded with secondary very fine-grained orthoclase and biotite disseminations, and it may also contain ankerite, sericite, kaolinite, quartz, magnetite, hematite, pyrite, and trace apatite, tourmaline, leucoxene and zircon in varying amounts (Schink, 1977).

This alteration assemblage also includes 2 to 10 percent hematite after magnetite (martite) as fine-grained disseminations and fracture fillings. Very fine-grained magnetite disseminations usually account for less than 2 percent of the rock volume and only rarely does magnetite occur as veins. Fine-grained pyrite disseminations and lesser fracture fillings may locally total 2 to 3 percent. Panteleyev (1975) commented that the presence of hematite and siderite impart a buff pink appearance to hand specimens that may be mistaken for orthoclase feldspar flooding.

b) Albite-Chlorite-Calcite (Propylitic)

This alteration assemblage is poorly developed within the Main Phase unit of the Red stock and peripheral late-stage dykes. Within the Main Phase unit albite-chlorite-calcite alteration is characterized by pseudomorphic replacement of andesine phenocrysts by hematitic albite and lesser orthoclase. Biotite and hornblende are replaced by chlorite and calcite (Schink, 1977).

The augite-phyric volcanic country rocks situated immediately north of the Red stock, underlying Dynamite Hill, are altered by this facies and host 5 percent disseminated epidote and 2 to 5 percent disseminated pyrite.

c) Ankerite-Sericite-Quartz

This alteration type is usually restricted to zones of moderate to intense quartz-sulphide stockwork veining (Schink, 1977). It was the opinion of Schink (1977) that this alteration facies occurred quite early during the hydrothermal process; however, since it usually occurs within zones of intense fracturing and quartz vein stockwork it is difficult to determine its temporal relationships with other alteration facies.

Ankerite-sericite-quartz alteration is characterized by the pervasive development of abundant fine-grained ankerite producing an aphanitic rock with little or no relict porphyritic textures. Ankerite granular aggregates and microveinlets may represent 60 percent of the altered rock, replacing phenocrysts and groundmass. Sericite occurs as felted aggregates replacing plagioclase phenocrysts and secondary biotite, and as interstitial grains to ankerite. It may represent 30 percent of the altered rock. Quartz replaces most of the groundmass as clear, fine, anhedral grains. Minor kaolinite and accessory apatite and rutile also occur with this alteration type (Schink, 1977).

2) Later Alteration Assemblages

a) Quartz-Sericite-Pyrite (Phyllic)

Quartz-sericite-pyrite alteration is the most pervasive, widespread and strongly developed of all alteration types. It occurs discontinuously throughout the Red stock and is most intensely developed in the Main Phase unit. It has also been recognized in the Late Phase unit and in restricted zones of the volcanic and volcaniclastic country rocks (Schink, 1977).

In hand specimen, this alteration type is pale grey with a distinctive bleached appearance. Primary textures are often partially to completely obliterated. Relict plagioclase phenocrysts are bleached with a pale green colour and their grain boundaries are generally preserved, but they are usually replaced by microcrystalline sericite with minor quartz, dolomite and kaolinite. Groundmass feldspars are replaced by fine, anhedral quartz with interstitial sericite. Relict hornblende phenocrysts are often obscured and replaced by sericite and minor dolomite (Schink, 1977).

Quartz and sericite are the dominant alteration minerals, constituting 30 to 40 percent of the rock. Fine-grained, subhedral to euhedral pyrite disseminations and fracture fillings may represent 4 to 7 percent of the rock volume within quartz-sericite-pyrite alteration zones; however, within areas of intense quartz-pyrite-carbonate veining the pyrite content may exceed 15 percent. Iron-enriched dolomite is the most common carbonate mineral with the carbonate content ranging from 1 to 7 percent. Tourmaline is widely distributed and most abundant in quartz-sericite-pyrite alteration. Generally, tourmaline is less than 2 percent of the rock, as discontinuous tourmaline-pyrite stringers, but it can constitute up to 25 percent of the rock. Apatite and trace rutile are common accessory minerals (Schink, 1977).

b) Quartz-Sericite-Ankerite-Kaolinite (Mottled Phyllic)

This alteration is thought to be the transition zone between quartz-ankerite-kaolinite-sericite (weak argillic) alteration type and the pervasive quartz-sericite-pyrite (phyllic) alteration type (Schink, 1977). Its inner margins apparently coincide with the disappearance of widespread hematite and magnetite, and with the appearance of abundant pyrite, marking the edge of the pyrite halo. It is now thought that the quartz-sericite-ankerite-kaolinite alteration variety represents a zone of alteration overprinting.

Quartz-sericite-ankerite-kaolinite alteration has a pronounced 'mottled' appearance due to numerous pale grey patches of intense sericitic alteration. The altered rock is usually pale buff and these sericitic patches may represent 10 to 15 percent of the rock and average 3 to 7 mm. in diameter. Quartz and sericite are the dominant alteration minerals in the patches with only minor ankerite. Sericite occurs as phenocrysts and as felted aggregates replacing illitic mica. Kaolinite occurs in aggregates of illitic mica. Fine- to medium-grained pyrite occurs as irregular intergrowths with minor apatite near the centre of the grey patches. Elsewhere, the Main Phase rock is altered like the quartz-sericite-kaolinite-sericite alteration type. Altered groundmass is typically beige to buff-grey comprising interlocking grains of quartz, pseudomorphic plagioclase, ankerite, sericite, kaolinite, illite, pyrite and accessory apatite, leucoxene and tourmaline.

Pyrite-quartz-ankerite veins within this alteration type have well developed sericite selvages up to 5 mm. wide. Total pyrite content varies from 5 to 10 percent of the rock volume.

c) Quartz-Ankerite-Kaolinite-Sericite (Weak to Intermediate Argillic)

This alteration type is associated with ankerite-sericite-quartz alteration, and is characterized by the presence of pale green, kaolinized plagioclase relics and pale brown, sericitized hornblende and biotite pseudomorphs set in a pale, light to medium brown, aphanitic groundmass (Schink, 1977).

Kaolinite occurs as aggregates completely replacing plagioclase phenocrysts and with sericite replacing hornblende and biotite phenocrysts. The groundmass has been replaced by pale brown quartz and lesser ankerite. Accessory minerals include apatite and rutile (Schink, 1977).

According to Schink (1977), the sequence of alteration "involves the early formation of a core of orthoclase-albite-biotite alteration in the East and Main Zones, grading out into a fringe of albite-chlorite-calcite alteration. Later alteration involved the formation of a broad zone of quartz-sericite-pyrite alteration which, in the East Zone, grades into kaolinite bearing alteration types characterized by abundant ankerite." Leitch and Elliott (1976) also theorized that a large alkali feldspar-magnetite (potassic) core was overprinted by the present quartz-sericite-pyrite (phyllic) zone. Payne (1994) suggests that a study of the distribution of hematite after magnetite may be useful in proving this theory, assuming that magnetite was formed originally only in the potassic zone, and that it was altered to hematite but not destroyed during the quartz-sericite-pyrite alteration overprinting process.

Major and minor alteration types and their intensities have been recorded on individual geologic logs and tabulated with the geologic database. However, these observation have not been plotted on the cross-sections or plans due to their secondary importance to host rock type, quartz stockwork distribution and assay results.

Veining and Stockwork

It was recognized early in the exploration of this property that significant copper mineralization is closely associated with individual and sheeted quartz (± carbonate) veining, and quartz (± carbonate) stockwork zones. Thus, considerable work has been undertaken to understand the relationship and distribution of very weak to intense quartz veining and stockwork zones with potentially economic copper-gold mineralization. The several varieties of quartz, gypsum and carbonate veining, and quartz (± carbonate, sulphide) stockwork zones have been documented in the following text.

1) Quartz-Carbonate (± Sulphide) Veining

Quartz-carbonate veining is ubiquitous throughout the Red stock and in Middle to Upper Triassic country rocks; especially in zones of fracturing and carbonization. Pyrite, chalcopyrite, magnetite with lesser galena and sphalerite and rare molybdenite are often associated with quartz-carbonate veining as fine-grained disseminations within the vein core or as disseminations and/or fracture filling along the vein selvages.

2) Sheeted Quartz-Sulphide (± Carbonate) Veining

Several discontinuous zones of intense silica flooding, accompanied by significant copper-gold mineralization, form the core of the quartz-carbonate-sulphide vein stockwork in the deposit. These zones are from 10 to 40 metres wide and are more common in the East Zone. They have an apparent 060° to 070° strike but cross-sectional plots show their orientation is controlled by east-west, sub-vertical splay fault structures from the larger East Zone fault structure. Geological modelling of high grade copper-gold mineralization associated with these zones shows the sheeted quartz veining to trend easterly (090°) and plunge -25° to -40° eastward in the East Zone. A similar orientation is indicated for the less common sheeted quartz zones in the Main Zone.

The sheeted quartz zones are lenticular and composed of parallel to subparallel quartz-sulphide (± carbonate) veins. They grade outward into an intense quartz-carbonate-sulphide vein stockwork, and are often associated with younger intense faulting that appears to be superimposed on a pre-existing zone of structural weakness through which the highly siliceous hydrothermal fluids were emplaced. Their present discontinuity appears to be a function of later faulting, rather than a primary feature. Altered Main Phase host rock fragments are occasionally included in the quartz sheeted zones. They have sharp boundaries with the enclosing quartz veins and abundant chalcopyrite disseminations near their margins; indicating that the sheeted quartz-sulphide veins were emplaced quite quickly without pervasive silicification (Schink, 1977).

The sheeted quartz vein material is comprised of 1 to 4 mm. wide alternating bands of white to light grey slightly coarser grain quartz and dark grey sulphide-rich microcrystalline quartz. The fine-grained quartz is irregular, with highly sutured grain boundaries, while the coarse material tends to be polygonal (Schink, 1977). Carbonate often occurs in cross-cutting fractures. Magnetite, extensively replaced by specular hematite, may account for up to 30 percent of the vein material. Fine sulphide stringers, both parallel and crosscutting the quartz veins, are composed of dominantly chalcopyrite with lesser pyrite and bornite. Pyrite usually occurs as fine, subhedral to euhedral grains and irregular aggregates in the quartz veins but coarser pyrite is usually poikilitic with inclusions of magnetite, hematite and carbonate. The pyrite to chalcopyrite ratio rarely exceeds 1:50 (Schink, 1977). The upper transition from intensely developed quartz stockwork mineralization to sheeted material is gradational, whereas the lower contact is often faulted and carbonatized (Ash *et al*, 1995).

Sheeted quartz-carbonate-sulphide zones generally host quite high grade copper-gold mineralization but the zones of weak to intense quartz-sulphide-carbonate stockwork account for most of the mineralization.

3) Quartz-Sulphide-Carbonate Stockwork Zones

The majority of the copper-gold mineralization occurs in well developed quartz-sulphide (± carbonate) vein stockwork zones. These zones are spatially- and probably genetically-related to major east-northeasterly faulting in the East Zone and easterly faulting in the Main Zone. Although younger reactivated faults, such as the East Zone fault and its splay faults, have cut and locally displaced the quartz-sulphide stockwork zones they are distributed along the central long axis of the Red stock and dip steeply southward in the East Zone to subvertical in the Main Zone; similar to later faulting. As a result of recent reclamation work the mineralized stockwork zones do not crop out within the Red-Chris deposit.

The grades of copper-gold mineralization are very correlative with the intensity of quartz-sulphide stockwork veining. Thus, all of the 1994 drill core logging included quartz-sulphide stockwork intensity observations. Quartz-sulphide stockwork intensity was based upon the following categories:

Very Weak	Less than 1 vein per metre
Weak	1 to 12 veins per metre
Moderate	12 to 30 veins per metre
Strong	More than 30 veins per metre

These are arbitrary values since it is recognized that the intensity of stockwork veining, although usually gradational, can increase or decrease rapidly across fault structures. See Figures 11 to 33 of this report for the distribution of quartz-sulphide stockwork zones throughout the deposit.

The quartz-sulphide stockwork veins range from 3 to 10 mm. in width, rarely attain 1 cm., and form a randomly orientated network pattern with at least two generations present. They are usually symmetrical and characterized by sharp, parallel walls and regular selvages. Sulphides are usually confined to a central vein fracture or core, and to minute cross-fractures. Minor ankerite, magnetite and hematite are usually present in the vein core. Repeated episodes of fracturing and mineralization are demonstrated by crosscutting relationships. Alteration envelopes appear to be lacking, or they have been overprinted by later alteration facies.

Chalcopyrite, pyrite and lesser bornite are the principal sulphide minerals of the quartz-sulphide vein stockwork zones. Minor covellite is also reported to occur as inclusions in pyrite (Schink, 1977). Chalcopyrite in quartz veins occur as fine, irregular grains and as discontinuous vein cores characterized by numerous inclusions of bornite, pyrite and hematite. Pyrite is present in variable amounts as fine-grained, anhedral to euhedral poikilitic grains. Bornite is largely restricted to moderately to strongly mineralized areas where it occurs as very fine- to fine-grained disseminations, microfracture fillings and fracture coatings, and as fine inclusions with covellite in pyrite (Schink, 1977). It is often confused with dark red hematite which also coats microfractures. Magnetite occurs along the transition rim between pyrite and hematite. Both magnetite and hematite may represent 2 to 10 percent of the rock in the mineralized zones. Schink (1977) and Ash and Fraser (1994) report identifying minute (60 mu) grains of gold closely associated with chalcopyrite from quartz-sulphide stockwork zones. Graphs of the copper:gold grade ratios through quartz-sulphide stockwork zones confirm their intimate association and common paragenesis.

In the stockwork zones the Main Phase rocks are affected by intense and pervasive carbonate alteration associated with lesser fine grained quartz, sericite and sulphides. Mafic minerals are intensely altered to chlorite-sericite-ankerite-magnetite. Although no ankerite is readily visible, the groundmass of weathered drill core quickly colours orange-brown. Plagioclase phenocrysts are locally kaolinized, but more often strongly sericitized.

Quartz-sulphide vein stockwork is typically absent in Late Phase rocks. Trace quartz stringers or veins are occasionally observed but they usually barren of sulphides. These veins are generally less than 1 cm. wide with irregular, vague boundaries and are comprised of white quartz ± magnetite.

4) **Gypsum Veining**

Irregular zones of weak to strong gypsum veining are located west to southwest of the Main Zone. These veins and fracture fillings are hosted by the Main and Late Phase units of the Red Stock, and by late-stage quartz-carbonate amygdaloidal dykes (Unit DQCA). They also cut all other vein types on the property. Gypsum zones do not crop out. They are most often intersected at depths of less than 10 metres to almost 290 metres with continuous intersections up to 100 metres, and appear to be irregular, flat-lying features (Schink, 1977).

Gypsum commonly occurs as colourless to pale pink, fibrous crystals in planar to irregular veins that average 2 to 5 mm. wide and may range up to 20 mm. wide. Minor pyrite and chalcopyrite rarely occur as coatings along gypsum vein selvages; indicating that gypsum veins may have infilled refractured sulphide-bearing veins or scavenged minor sulphide mineralization from the host rocks.

Schink (1977) postulates that gypsum was deposited from the interaction of hydrothermal fluids and oceanic waters circulating through the near-surface pluton after the mineralizing events. Gypsum does not appear to have been formed by supergene hydration of anhydrite since anhydrite is deficient in the Red-Chris hydrothermal system and because the gypsum persists to such substantial depths.

5) **Carbonate Veining**

Carbonate (± quartz) veins and carbonatization of groundmass minerals to ankerite and iron-rich magnesite are widespread throughout the Red stock. Within structural zones the Upper Triassic volcanics and sediments are also intensely carbonatized. Carbonate (ankerite more than calcite) veins occur as white to pale pink irregular veins averaging 2 to 7 mm. wide. These veins are commonly barren of sulphides but have been observed to locally host pyrite, chalcopyrite and minor sphalerite and galena. Carbonate is also common as fracture fillings and locally occurs as the matrix to tectonic breccias. Carbonate veins appear to be very late structures since they cut mineralized quartz veins and late-stage quartz-carbonate amygdule dykes. Thus, they appear to post-date the main copper-gold hydrothermal mineralizing event.

Mineralization

Pyrite, chalcopyrite and lesser bornite are the principal sulphide minerals of the Red-Chris deposit. Minor covellite occurs as inclusions in pyrite, and molybdenite, sphalerite and galena occur locally in trace amounts. Gold, second in economic importance to copper, occurs as electrum spatially- and genetically-associated with the chalcopyrite mineralization. Silver values are geochemically-significant but are of minor economic importance.

Pyrite occurs commonly as very fine- to fine-grained, anhedral to euhedral disseminations or fracture fillings. Within the mineralized zones it is commonly poikilitic with numerous copper sulphide and iron oxide inclusions, while elsewhere the inclusions are commonly sericite and dolomite. The pyrite content usually varies disproportionately with quartz vein stockworks. It ranges from 5 to 10 percent in Late Phase rocks, 2 to 4 percent in Main Phase rocks with very weak to weak quartz veining, and often less than 1 to 2 percent in well mineralized Main Phase rocks with moderate to intense quartz stockworks. Pyrite (± chalcopyrite) without quartz cut quartz vein stockworks, and are often associated with narrow hematite veinlets. The partial replacement of mafic phenocrysts and, to a lesser degree, plagioclase phenocrysts is occasionally seen.

Pyrite usually occurs as fracture filling and veinlets peripheral to the quartz-sulphide stockwork zones which coincides with a decrease of quartz-sericite-pyrite alteration. Schink (1977) has defined this transition as the inner limits of the 'pyrite halo' for the deposit. Within the pyrite halo, the pyrite to chalcopyrite ratio is very high with pyrite representing up to 15 percent of the rock. Minor copper sulphide are present as inclusions and exsolutions in pyrite, and molybdenite is found in the pyrite halo as quartz-pyrite-molybdenite veins. Tourmaline-pyrite and apatite-pyrite intergrowths occur locally. Minor sphalerite and traces of galena occur in late dolomitic veins and breccias that cut the pyrite halo (Schink, 1977).

Chalcopyrite is most abundant in the quartz-sulphide vein stockworks and quartz-sericite-ankerite alteration selvages. Its content is usually proportional to the intensity of quartz vein stockwork. Beyond the quartz stockwork zones chalcopyrite occurs as disseminations, along fractures often associated with pyrite veinlets, and rarely as veinlets. In quartz veins it occurs as disseminations, aggregates, and fracture coatings and fillings both parallel to and crosscutting the quartz veins. When quartz-sulphide vein stockwork intensity diminishes elevated copper grade remain constant due to the presence of fine-grained disseminated chalcopyrite which is associated with pyrite.

Bornite is most common as fracture fillings and fine-grained (0.5 mm.) disseminations in the quartz-sulphide vein stockwork zones of the East Zone but it also occurs as fine-grained disseminations in the highly altered Main Phase rocks of the eastern Main Zone. Within quartz stockwork veins the bornite occurs as disseminations and microveinlets both within their cores and as crosscutting veins. Bornite is also intimately associated with disseminations and fracture fillings and coatings of specular hematite, and with specular hematite aggregates. This association makes visual grade estimates difficult and invariably low.

Magnetite and hematite are most commonly associated with mineralized quartz stockwork zones where they may represent up to 10 modal percent of the rock. They usually occur as fine-grained disseminations in the veins and host rocks but they also occur as magnetite-hematite veinlets and quartz-magnetite veinlets. Magnetite typically forms fine, hexagonal grains which are usually replaced by specular and earthy hematite.

All of the known native gold or electrum mineralization on the property is microscopic. Preliminary thin section and SEM studies of the quartz-sulphide stockwork vein material discovered two grains of gold intimately associated with copper mineralization (Ash and Fraser, 1994). One subround gold grain occurs within a bornite grain hosted by a quartz vein and another gold grain occurs interstitially with a chalcopyrite and bornite-bearing quartz vein.

Copper to gold grade ratios were plotted for several drill holes in both the East and Main Zones. The results indicate that the gold-bearing mineralization is intimately associated with the copper mineralization and that, with only slight local variations, they are consistent with depth. It is also worthy to note that the results of 23 Neutron activation analyses which were conducted by the Ministry of Energy, Mines and Petroleum Resources show very low but detectable mercury values (less than 1 to 6 p.p.m.) associated with the high-grade copper-gold mineralization hosted by sheeted quartz and strong quartz-sulphide vein stockwork zones in the East Zone.

Prominent limonitic gossans occur within the East and West Gully drainages and along their steep slopes. However, in areas of low relief, such as over the Main and East Zones, weak limonite only extends 1 or 2 metres beneath the bedrock surface. The gravel till layer overlying the bedrock is often very limonitic or ferrocrete. Thus, it appears that Recent glaciation has removed any of the supergene alteration zone that might have existed over the Red-Chris deposit.

Great Plains Development reportedly intersected supergene chalcocite mineralization in shallow drilling near the headwaters of the East Gully drainage. It is possible that there may be graben-like structures within the property resulting from westside-down, north-northwesterly normal faulting where supergene copper mineralization might have been preserved after continental and alpine glaciation.

Deposit Model

The Red-Chris copper-gold deposit has genetic characteristics of both the alkalic and calc-alkalic suites of volcanic porphyry copper deposits in the Canadian Cordillera. The following table, modified after Schink (1977) and Ash *et al* (1995), shows these ambiguities.

TABLE II

Porphyry Copper Characteristics of the Red-Chris Deposit

	Alkalic Suite	**Calc-Alkalic Suite**	**Red-Chris Deposit**
Intrusive Host Rock	Diorite, Monzonite Syenite	Quartz Diorite, Granodiorite	Monzodiorite
Host Rock Geochemistry	Alkalic; high K/Na ratio; high alkali/ silica ratio	Calc-alkalic; low K/Na ratio; low alkali/silica ratio	Calc-alkalic; low K/Na ratio; moderate alkali/ silica ratio
Morphology of Host Intrusive	Volcanic	Plutonic, Phallic	Volcanic
Level of Intrusion	Epizonal	Mesozonal	Epizonal to hypabyssal
Country Rocks	Generally potassic volcanic rocks	Generally calc-alkalic plutonic and volcanic rocks	Sodic and potassic volcanic rocks
Alteration Types (core to rim)	Potassic, Propylitic	Potassic, Phyllic Argillic, Propylitic	Potassic, Argillic, Phyllic, Propylitic
Position of Ore in Alteration Sequence	Potassic, Propylitic	Potassic, Phyllic	Potassic, Argillic

TABLE II (Continued)

Porphyry Copper Characteristics of the Red-Chris Deposit

	Alkalic Suite	Calc-Alkalic Suite	Red-Chris Deposit
Associated Metals	Gold, Silver	Molybdenum, Silver, minor Gold	Significant Gold; minor silver; rare molybdenum
Style of Mineralization	Sulphide fracture fillings, massive lenses and breccia	Quartz-sulphide vein stockwork breccia	Quartz-sulphide vein stockwork, silicified zone
Grade Distribution and Relative Size of Deposit	Moderately erratic; Small to Moderate	Consistent: Moderate to Large	Moderately consistent: Moderate

The classification of the Red-Chris deposit, as to its genetic porphyry copper suite, remains subject to much debate. Newell and Peatfield (1995) tend to place it in the alkalic suite of volcanic porphyry copper deposits and conclude that the calc-alkalic features are the result of secondary processes, such as the influence of oceanic waters on the hydrothermal fluids. It is the writer's opinion that it should be classified as a 'bulk tonnage copper-gold deposit with hybrid porphyry copper characteristics' since, despite its relatively long exploration history, much more geological research is required to refine its specific classification.

GEOCHEMISTRY

Soil Geochemical Sampling Survey

The results of the soil geochemical survey show the copper-gold mineralization to be more extensive and continuous west of the Red-Chris deposit; especially in the area between the East and West Gully drainages. Unfortunately, soil geochemical sampling was not extended to the west and northwest after the control grid was expanded in September, 1994. Thus, soil geochemical results are not available for the area of the large induced polarization chargeability anomaly in the northwestern corner of the grid area (see Geophysical Results).

Anomalous copper-in-soil geochemical results (>100 p.p.m. copper) are generally more erratic and slightly lower than those reported from basal till sampling work (Forsythe, 1976). Nevertheless, when the soil and basal till results are compiled there appears to be a large and continuous east-northeasterly trending copper soil geochemical anomaly overlying most of the Red stock from, at least, gridlines 48200 to 52000 East; a strike distance 3.8 kilometres. In the vicinity of the East and West Gullies the anomalous copper-in-soil geochemical values range from 100 to 4,196 p.p.m. with the highest values concentrated in an arcuate, concave west-facing zone centred at grid coordinates 99750 North by 49150 East.

Anomalous gold-in-soil geochemical values (>50 p.p.b. gold) form a large ellipsoidal zone from grid coordinates 99100 to 100075 North by 48450 to 49250 East. The highest gold-in-soil values occur as a northerly trending zone from 99200 to 99950 North; coinciding with the highest copper-in-soil values. The copper- and gold-in-soil analytical results have been plotted adjacent to their sample sites on Figures 39 and 40 of this report, and Appendix IX contains the Certificates of Analysis.

When the copper and gold soil anomalies are plotted with the anomalous geophysical results it is apparent that the headwaters of the East and West Gully drainages are an obvious exploration target worthy of drill testing (see also Lloyd, 1995, p. 36).

Diamond Drill Core Assay and Analytical Results

The 1994 diamond drilling campaign successfully expanded the drill-indicated resources of the Red-Chris deposit. Fifty-five drill holes tested its lateral and vertical extent, and the continuity and grade of the copper-gold mineralization. This drilling delineated continuous mineralization over an east-northeasterly trending strike length of 1,300 metres with widths varying from 150 to 500 metres. More importantly, the mineralization was shown to be continuous from surface to depths exceeding 400 metres, and it remains open both laterally or vertically.

Current drilling results indicate that there are two core zones of higher grade copper-gold mineralization (greater than 0.4 % copper) separated and surrounded by a much larger, undefined zone of greater than 0.25 percent copper (+ gold) mineralization. The western zone, previously called the 'Main Zone', trends easterly and underlies the area from grid coordinates 98050 to 100250 North by 49900 to 50400 East. The eastern zone, previously called the 'East Zone', trends east-northeasterly and underlies the area from grid coordinates 100200 to 100550 North by 50675 to 51050 East. It is now recognized that these two core zones are not discrete deposits, as previously thought, but simply higher grade sections within a continuous, open zone of copper-gold mineralization that extends, at least, from 96000 to 100550 North by 49700 to 51100 East (see Figure 8).

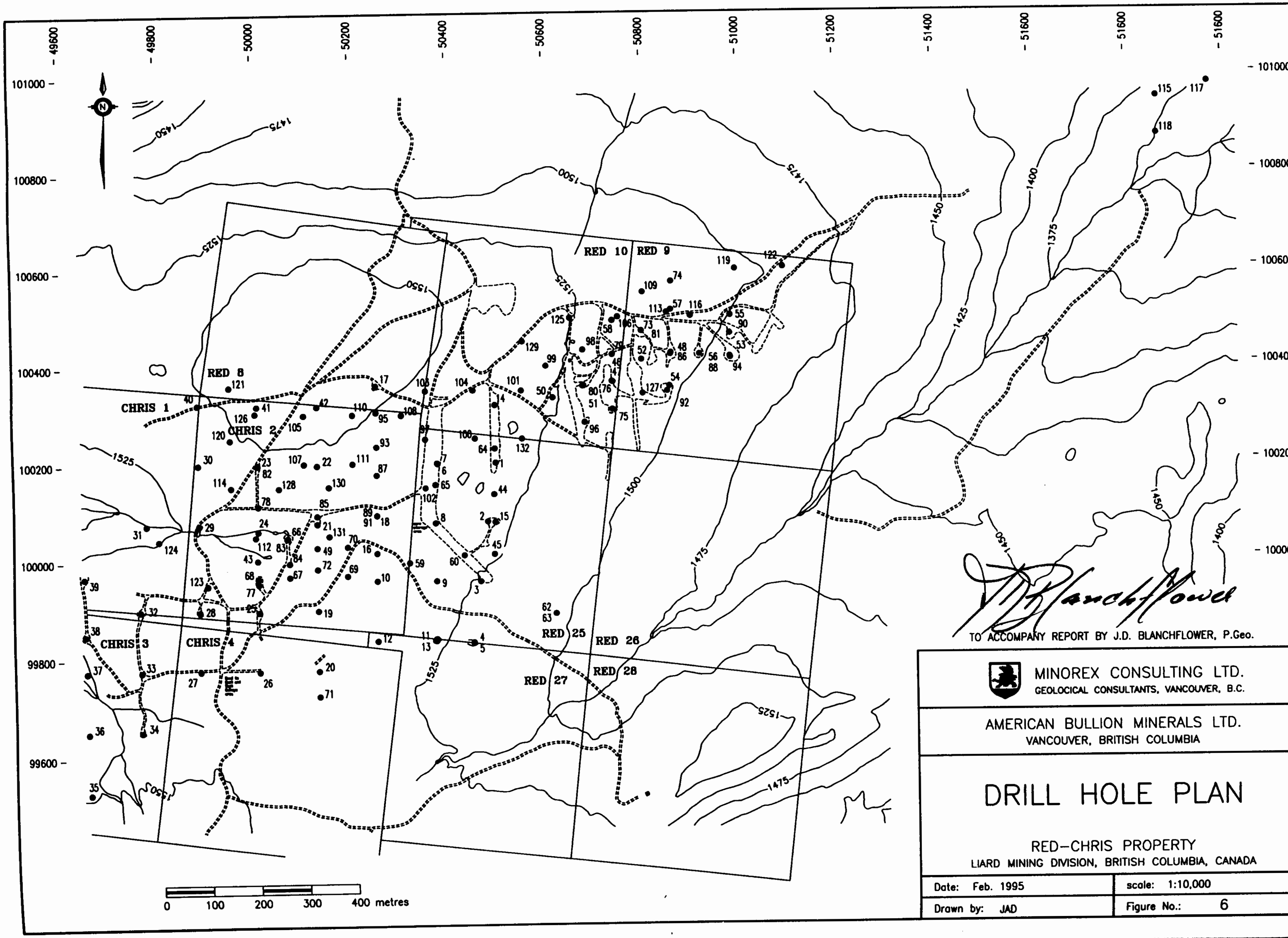
Cross-sectional and bench level plots of the geology, alteration, quartz stockwork and copper-gold mineralization of the deposit indicate that the higher grade portions are open in a north-northwesterly direction. Furthermore, there may be higher grade sections of copper-gold mineralization within an east-northeasterly trending section from 98000 North by 50100 East to 100100 North by 50700 East. Several drill holes have been proposed to test and delineate the limits of the higher grade mineralization within both of these areas (see Proposed Exploration Program).

Drill holes 94-115, -117 and -118 tested an induced polarization chargeability anomaly approximately one kilometre east of the Red-Chris deposit. They intersected pervasively altered and pyritized dykes of plagioclase-hornblende porphyry monzodiorite composition, undoubtedly belonging to the Red stock, cutting propylitically-altered and pyritized basic volcanic and volcaniclastic rocks belonging to the Dynamite Hill formation. However, none of this drilling discovered any significant copper or gold mineralization. It now appears that the chargeability anomaly was caused by the pervasive pyrite disseminations and fracture fillings that locally account for ±5 percent of the rock volume.

It is estimated that only 35 percent of the pervasively altered and mineralized section of the Red stock has been drill tested. There still remains a large area west and northwest of the Red-Chris deposit that has received only shallow drilling. The large geological, geochemical and/or geophysical anomalies between the East and West Gully drainages and in the northwestern portion of the survey grid have only been tested by nine shallow and widely-spaced drill holes and several of these holes intersected significant copper mineralization. Furthermore, the geophysical or geochemical anomalies within the Upper Triassic volcanic strata have not been tested.

According to Smee (1995), "The analytical data for the Red-Chris Project is well controlled. Standards prove that the data is accurate to within acceptable limits. Duplicates (check-assay sample pulps) show a very small rotational bias between the two laboratories, with Min-En being slightly high on copper, and slightly low on gold, when compared to Chemex. However, the differences are not significant and do not impact the validity of analysis." Thus, it is evident that the 1994 sampling, assaying and check-assaying procedures should be continued during future drilling campaigns.

See Figures 6, 7, and 11 to 33 of this report for the location and configuration of the 1994 diamond drilling. The drilling data and mineralized intercepts have been tabulated and accompany this report as Table III, and proposed drill sites for future testing are shown on Figure 9 and in Table V of this report.



MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

AMERICAN BULLION MINERALS LTD.
VANCOUVER, BRITISH COLUMBIA

DRILL HOLE PLAN

RED–CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA

Date: Feb. 1995	scale: 1:10,000
Drawn by: JAD	Figure No.: 6

TABLE III

SUMMARY OF 1994 DIAMOND DRILL HOLE RESULTS

Drill Hole	Core Size	Collar Location Northing	Easting	Elev. (m)	Date Start	Comp	Az (deg)	Dip (deg)	Length (m)	(ft)	Interval (m) From	To	Intercept (m)	(ft)	Copper (%)	Gold (g.p.T.)
75	HQ	100306.90	50736.83	1513.15	27-Jun	29-Jun	000	-70.0	191.11	627	3.7	191.1	187.4	615	0.66	0.40
76	HQ	100363.72	50737.92	1515.25	29-Jun	3-Jul	180.0	-65.0	304.80	1,000	13.7	200.3	186.6	612	0.78	0.53
77	HQ	99952.80	50004.67	1542.42	4-Jul	7-Jul	000	-70.0	395.02	1,296	59.7	306.6	246.9	810	0.73	0.38
										including	172.5	257.9	85.4	280	0.94	0.57
78	HQ	100113.44	50005.64	1540.21	8-Jul	12-Jul	180.0	-60.0	379.78	1,246	96.3	324.9	228.6	750	0.54	0.28
										including	239.6	324.9	85.3	280	0.63	0.35
79	HQ	100420.22	50737.27	1517.70	4-Jul	9-Jul	180.0	-65.0	352.04	1,155	127.1	346.0	218.9	718	0.59	0.47
										including	127.1	261.2	134.1	440	0.75	0.55
80	HQ	100356.46	50677.80	1518.83	9-Jul	13-Jul	182.0	-60.0	355.70	1,167						
81	HQ	100469.26	50797.55	1516.53	14-Jul	18-Jul	183.0	-60.0	364.85	1,197	147.8	364.9	217.1	712	0.72	0.68
										including	175.9	297.8	121.9	400	1.13	1.02
82	HQ	100197.41	50004.15	1543.64	12-Jul	17-Jul	180.0	-60.0	419.40	1,376	126.8	343.2	216.4	710	0.51	0.30
										including	126.8	260.9	134.1	440	0.56	0.33
83	HQ	100046.23	50065.03	1538.32	17-Jul	22-Jul	180.0	-60.0	391.97	1,286	26.2	221.3	195.1	640	0.56	0.34
										including	157.3	221.3	64.0	210	0.77	0.50
											285.3	340.2	54.9	180	0.68	0.40
84	HQ	99995.17	50068.57	1540.11	22-Jul	27-Jul	177.0	-60.0	364.24	1,195	93.6	319.1	225.5	740	0.62	0.29
										including	93.6	166.7	73.1	240	1.01	0.58
85	HQ	100092.80	50125.98	1538.26	19-Jul	22-Jul	177.0	-60.0	313.64	1,029	154.5	285.6	131.1	430	0.57	0.38
										including	197.2	285.6	88.4	290	0.71	0.49

TABLE III

SUMMARY OF 1994 DIAMOND DRILL HOLE RESULTS

Drill Hole	Core Size	Collar Location Northing	Collar Location Easting	Collar Location Elev. (m)	Date Start	Date Comp	Az (deg)	Dip (deg)	Length (m)	Length (ft)	Interval (m) From	Interval (m) To	Intercept (m)	Intercept (ft)	Copper (%)	Gold (g.p.T.)
86	HQ	100420.30	50857.75	1507.04	22-Jul	27-Jul	180.0	-60.0	361.49	1,186	129.8	296.9	167.1	548	0.72	0.65
										including	196.9	296.9	100.0	328	0.79	0.78
87	HQ	100175.99	50249.86	1538.82	28-Jul	1-Aug	180.0	-60.0	367.89	1,207	124.0	328.3	204.3	670	0.35	0.24
										including	136.6	233.8	97.2	319	0.42	0.23
88	HQ	100419.95	50918.22	1500.26	27-Jul	31-Jul	180.0	-50.0	365.76	1,200	47.2	174.7	127.5	418	0.26	0.22
89	HQ	100092.82	50249.43	1535.41	2-Aug	2-Aug	180.0	-60.0	22.86	75						
90	HQ	100463.23	50981.37	1495.04	1-Aug	5-Aug	185.0	-60.0	367.59	1,206	108.5	227.4	118.9	390	0.34	0.25
91	HQ	100092.82	50249.43	1535.41	2-Aug	6-Aug	180.0	-60.0	367.89	1,207	170.7	285.6	114.9	377	0.27	0.27
92	HQ	100343.65	50850.45	1500.06	6-Aug	10-Aug	180.0	-59.0	365.76	1,200	44.5	196.9	152.4	500	0.19	0.27
93	HQ	100233.84	50250.23	1541.88	7-Aug	11-Aug	175.0	-60.0	373.38	1,225	169.8	334.1	164.3	539	0.72	0.67
										including	284.1	334.1	50.0	164	1.00	1.16
94	HQ	100412.48	50982.32	1490.27	10-Aug	13-Aug	180.0	-60.0	245.67	806	11.0	56.7	45.7	150	0.40	0.25
95	HQ	100304.43	50249.68	1545.90	12-Aug	18-Aug	172.0	-60.0	425.81	1,397	221.0	367.9	146.9	482	0.47	0.25
96	HQ	100280.41	50679.77	1516.84	13-Aug	19-Aug	180.0	-60.0	370.64	1,216	305.7	370.6	64.9	213	0.36	0.37
97	HQ	100248.58	50350.95	1535.14	19-Aug	25-Aug	178.0	-60.0	402.34	1,320	285.0	402.3	117.3	385	0.65	0.72
										including	288.0	349.6	61.6	202	0.90	1.03
98	HQ	100430.37	50676.93	1521.30	20-Aug	24-Aug	180.0	-60.0	357.23	1,172	154.5	327.0	172.5	566	0.33	0.22
										including	263.7	303.0	39.3	129	0.48	0.34

TABLE III

SUMMARY OF 1994 DIAMOND DRILL HOLE RESULTS

Drill Hole	Core Size	Collar Location Northing	Easting	Elev. (m)	Date Start	Comp	Az (deg)	Dip (deg)	Length (m)	(ft)	Interval (m) From	To	Intercept (m)	(ft)	Copper (%)	Gold (g.p.T.)
99	HQ	100397.38	50601.01	1524.60	24-Aug	28-Aug	180.0	-60.0	359.05	1,178						
100	HQ	100249.18	50453.47	1530.40	25-Aug	29-Aug	177.0	-60.0	364.85	1,197	185.0	293.2	108.2	355	0.31	0.27
101	HQ	100346.78	50549.69	1526.20	29-Aug	3-Sep	177.0	-60.0	367.59	1,206	84.1	369.6	285.5	936	0.30	0.27
										including	224.3	306.6	82.3	270	0.41	0.38
102	HQ	100148.53	50350.39	1531.23	29-Aug	2-Sep	180.0	-60.0	297.18	975	145.7	297.2	151.5	497	0.31	0.26
103	HQ	100347.84	50352.28	1542.11	2-Sep	6-Sep	180.0	-60.0	364.85	1,197	264.1	364.8	100.7	330	0.30	0.27
104	HQ	100348.27	50450.45	1535.50	3-Sep	7-Sep	180.0	-60.0	367.59	1,206	321.9	367.6	45.7	150	0.24	0.28
105	HQ	100299.93	50100.27	1550.40	7-Sep	9-Sep	180.0	-60.0	364.85	1,197	142.0	272.8	130.8	429	0.37	0.19
											284.4	343.5	59.1	194	0.35	0.30
106	HQ	100498.28	50749.23	1518.22	8-Sep	16-Sep	180.0	-65.0	501.70	1,646	196.9	495.6	298.7	980	0.90	0.82
										including	269.8	495.6	225.8	741	1.08	1.03
										including	300.5	388.9	88.4	290	1.54	1.59
107	HQ	100199.87	50100.24	1544.80	10-Sep	13-Sep	181.0	-60.0	370.94	1,217	3.7	370.9	367.2	1,204	0.51	0.38
										including	47.2	124.0	76.8	252	0.70	0.31
										including	270.3	370.9	100.6	330	0.70	0.71
108	HQ	100298.43	50301.73	1542.10	13-Sep	16-Sep	180.0	-60.0	367.89	1,207	136.3	367.9	231.6	760	0.38	0.29
										including	302.7	367.9	65.2	214	0.50	0.40
109	HQ	100549.48	50801.12	1516.40	16-Sep	24-Sep	180.0	-60.0	526.08	1,726	273.1	498.7	225.6	740	0.90	0.99
										including	312.1	446.8	134.7	442	1.12	1.30

TABLE III

SUMMARY OF 1994 DIAMOND DRILL HOLE RESULTS

Drill Hole	Core Size	Collar Location Northing	Easting	Elev. (m)	Date Start	Comp	Az (deg)	Dip (deg)	Length (m)	(ft)	Interval (m) From	To	Intercept (m)	(ft)	Copper (%)	Gold (g.p.T.)
110	HQ	100300.18	50201.15	1548.10	17-Sep	20-Sep	180.0	-60.0	383.13	1,257	219.2	377.1	157.9	518	0.53	0.45
111	HQ	100199.69	50200.53	1542.30	20-Sep	23-Sep	180.0	-60.0	364.85	1,197	87.5	294.1	206.6	678	0.47	0.41
112	HQ	100049.62	49999.53	1535.90	23-Sep	26-Sep	225.0	-45.0	319.13	1,047	16.8	66.1	49.3	162	0.50	0.20
113	HQ	100507.13	50850.50	1513.20	24-Sep	30-Sep	180.0	-60.0	431.60	1,416	230.4	431.6	201.2	660	0.49	0.47
										including	275.2	340.1	64.9	213	0.91	0.83
114	HQ	100152.43	49950.80	1540.90	26-Sep	29-Sep	180.0	-60.0	367.89	1,207	145.4	324.6	179.2	588	0.59	0.24
										including	178.9	306.9	128.0	420	0.70	0.25
115	NQ	100946.89	51867.03	1360.08	29-Sep	1-Oct	171.0	-45.0	233.78	767						
116	HQ	100499.36	50900.16	1507.63	30-Sep	4-Oct	180.0	-60.0	359.97	1,181	218.2	360.0	141.8	465	0.29	0.26
117	NQ	100976.04	51972.75	1344.09	1-Oct	3-Oct	180.0	-45.0	227.69	747						
118	NQ	100869.96	51867.21	1349.02	3-Oct	4-Oct	180.0	-45.0	282.55	927						
119	HQ	100596.99	50993.93	1500.19	4-Oct	10-Oct	180.0	-60.0	471.22	1,546	126.8	428.2	301.4	989	0.42	0.30
										including	271.9	379.2	107.3	352	0.63	0.40
120	HQ	100250.25	49949.21	1545.49	5-Oct	9-Oct	180.0	-60.0	413.61	1,357	118.0	413.6	295.6	970	0.44	0.28
										including	212.5	340.5	128.0	420	0.64	0.43
121	HQ	100359.14	49948.15	1550.03	9-Oct	11-Oct	180.0	-60.0	377.04	1,237	297.8	377.0	79.2	260	0.30	0.14
122	HQ	100600.07	51093.32	1491.39	10-Oct	15-Oct	186.0	-60.0	388.92	1,276						

TABLE III

SUMMARY OF 1994 DIAMOND DRILL HOLE RESULTS

Drill Hole	Core Size	Collar Location Northing	Collar Location Easting	Collar Location Elev. (m)	Date Start	Date Comp	Az (deg)	Dip (deg)	Length (m)	Length (ft)	Interval (m) From	Interval (m) To	Intercept (m)	Intercept (ft)	Copper (%)	Gold (g.p.T.)
123	HQ	99950.43	49899.50	1540.16	12-Oct	15-Oct	180.0	-60.0	401.42	1,317	325.2	370.9	45.7	150	0.25	0.19
124	HQ	100043.43	49799.38	1522.63	15-Oct	17-Oct	180.0	-60.0	337.41	1,107	69.2	108.8	39.6	130	0.57	0.29
											154.5	233.8	79.3	260	0.36	0.28
											279.5	300.8	21.3	70	0.42	0.30
125	HQ	100496.61	50650.78	1523.45	15-Oct	20-Oct	180.0	-60.0	489.51	1,606	236.5	486.5	250.0	820	0.31	0.24
126	HQ	100304.48	50000.81	1551.23	17-Oct	21-Oct	180.0	-60.0	438.00	1,437	182.9	435.0	252.1	827	0.32	0.16
127	HQ	100339.02	50799.38	1508.95	20-Oct	24-Oct	180.0	-60.0	318.82	1,046	5.5	65.8	60.3	198	0.90	0.60
											151.2	251.5	100.3	329	0.35	0.36
128	HQ	100150.31	50048.55	1542.44	21-Oct	25-Oct	178.5	-60.0	458.11	1,503	9.1	377.0	367.9	1,207	0.57	0.43
										including	230.7	374.0	143.3	470	0.88	0.80
129	HQ	100448.60	50552.61	1531.16	24-Oct	30-Oct	188.0	-60.0	501.70	1,646	312.7	501.7	189.0	620	0.34	0.39
										including	459.0	501.7	42.7	140	0.43	0.57
130	HQ/NQ	100152.22	50150.69	1541.99	25-Oct	29-Oct	180.0	-60.0	480.67	1,577	26.5	404.5	378.0	1,240	0.52	0.42
										including	188.1	325.2	137.1	450	0.74	0.68
131	HQ/NQ	100050.87	50150.41	1536.78	29-Oct	2-Nov	180.0	-60.0	517.25	1,697	19.5	130.1	110.6	363	0.40	0.30
										including	35.7	60.7	25.0	82	0.93	0.65
											282.6	514.2	231.6	760	0.35	0.26
132	HQ	100247.93	50550.10	1524.80	30-Oct	3-Nov	180.0	-60.0	373.38	1,225	4.9	142.0	137.1	450	0.41	0.46
											56.7	81.1	24.4	80	0.66	0.87
Total Drilling Footage									**21,417.08**	**70,266**						

Mineral Characterization Study

The results of 1,234 I.C.P. analyses on 20 percent of the drill core samples indicate that, except for copper and gold, there are no other metals of significant economic interest. Silver values are generally quite low but bulk samples of copper-gold mineralization average 10 grams per tonne which will increase the value of a copper-gold concentrate (American Bullion, Press Release 95-03, Feb. 13, 1995). Lead and zinc values appear to be of little economic significance, and arsenic, antimony, barium and other elements that are generally considered to be detrimental from a metallurgical standpoint are all quite low. No mercury analyses were conducted on the samples, but Ash *et al* (1995) reports that trace amounts are associated with the higher grade mineralization, less than 6 p.p.m. mercury.

A complete table of the 31-element I.C.P. analytical results with statistical summaries and the Certificates of Analysis accompany this report as Appendix VIII. The following table shows the analytical and statistical results for some the more commonly associated elements.

	Highest Value (ppm)	Lowest Value (ppm)	Mean (ppm)	Median (ppm)
Silver	15.1	0.1	0.904	0.6
Arsenic	970	1	192.288	180
Antimony	578	1	19.806	13
Barium	2953	12	171.705	115
Bismuth	99	1	7.335	5
Cadmium	100	0.1	0.201	0.1
Chrome	569	14	70.712	61
Cobalt	33	2	8.278	8
Lead	5973	7	43.969	30
Molybdenum	148	1	11.660	7
Nickel	206	4	22.934	20
Tungsten	27	1	5.156	5
Zinc	10,000	10	153.449	85

The results of this work are very positive for the project since they indicate that a relatively 'clean' copper-gold concentrate could be produced without any serious penalty contaminants. Nevertheless, additional analytical work must be undertaken during future drilling campaigns to quantify and qualify the elemental characteristics of the Red-Chris mineralization.

GEOPHYSICS

The following discussion of the ground magnetics, Very Low Frequency electromagnetics and induced polarization results is summarized from the 1995 geophysical report by John Lloyd of Lloyd Geophysics Inc. which accompanies this report as Appendix X.

Ground Magnetics Survey

The magnetic response over the Red stock is uniformly low; ranging from approximately 1,950 to 2,050 nT (see Lloyd, 1995, p. 28; Dwg No. 94356-57). There are, however, five zones of increased magnetic response within the boundaries of the stock which Lloyd (1995) notes. The first four zones are situated within the Red-Chris deposit but they do not correlate with any of the drill-tested copper-gold mineralization. The fifth zone trends north-south and is much larger than the other four zones. Lloyd (1995) has inferred that it is due to a thin veneer of mafic volcanics covering the buried Red stock.

There are four magnetic zones situated north of the Red stock and probably caused by extensive areas of mafic volcanic rocks. According to Lloyd (1995), zones 7 and 8 may indicate the presence of sulphide mineralization within the volcanic rocks since they coincide with a long and strong induced polarization chargeability anomaly, and they should be regarded as important exploration targets.

Very Low Frequency Electromagnetics Survey

The average bulk resistivities on the Red-Chris property range from approximately 100 to 700 ohm-metres which apparently indicate a high geological noise environment (Lloyd, 1995, p. 29; Dwg. No. 94356-55). Lloyd (1995) suggests that the conductors shown by the Fraser Filter VLF-EM data (Lloyd, 1995, Dwg. No. 94356-50 to 53) are caused by poorly conductive geological structures which can not be correlated to any known geological features.

Induced Polarization Survey

The induced polarization survey was very successful in defining the sulphide-rich mineralization of the Red stock and adjacent volcanic country rocks. The survey outlined a strong well-defined chargeability anomaly, ranging from 35 to 75 milliseconds, which largely overlies the Red stock and trends east-northeast across the control grid area. It is 4.9 kilometres long and ranges from 20 to 1,000 metres wide. According to Lloyd (1995), "On the north flank of the Red Stock there are extensive areas of the anomaly which is most probably underlain by sulphide bearing volcanic rocks. However north of the anomaly itself, where background chargeability values drop to less than 10 milliseconds, the volcanic rocks probably contain little or no sulphides. Along the south edge of the Red Stock where the area is underlain by the Bowser Lake sediments, the background chargeability drops to about 5 to 10 milliseconds, with correspondingly low resistivity values of less than 100 ohm-metres." The boundaries of the chargeability anomaly coincide with the 20 millisecond contour on the n=1 data and the 30 millisecond contour on the filtered data. The filtered chargeability and filtered metal factor anomalies were also compared and Lloyd (1995) determined their coincidence was due to the existence of more intense alteration associated with the strong resistivity lows and metal factor highs.

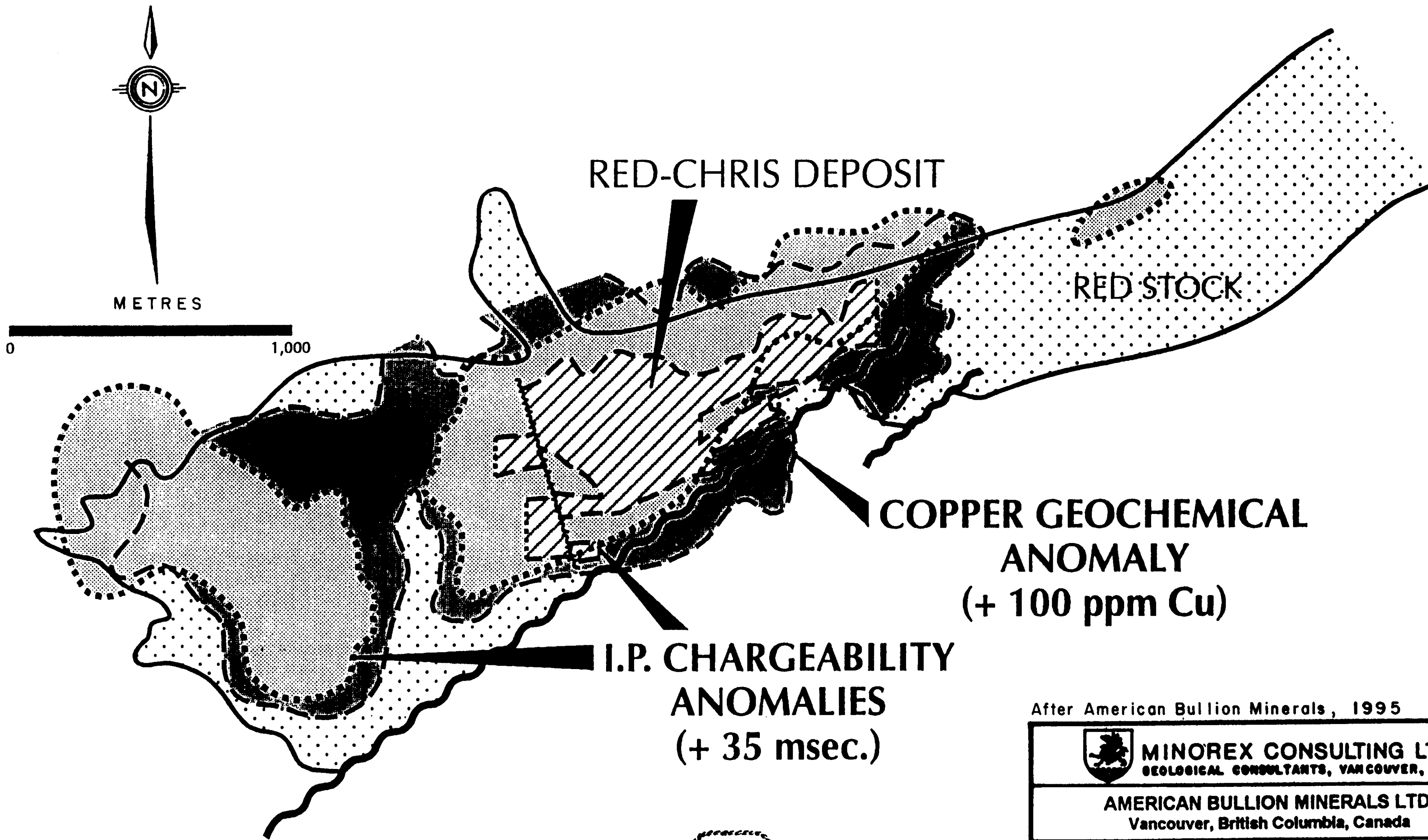
According to Lloyd (1995), "With regard to the shape and size of the sulphide system it is interesting to observe that it (Red-Chris chargeability anomaly) does not fit the more normal circular, semi-circular or arcuate shape like the majority of porphyry systems, but it is instead extremely linear and therefore has a strong structural component." Furthermore, approximately forty percent of the sulphide system, as defined by the 1994 IP survey, has been drill tested.

The induced polarization survey delineated two significant exploration targets. The highest priority target, designated 'number one', is centred at grid coordinates 99900 North by 48400 East and is approximately 600 metres long by 600 metres wide. It has a strong chargeability high and strong resistivity low, which results in a very strong metal factor anomaly, but no significant magnetic response; very similar to the induced polarization signature of the Red-Chris deposit (Lloyd, 1995).

The second exploration target, designated 'number two', is centred at grid coordinates 99500 North by 48900 East and is approximately 700 metres long by 400 metres wide. It is characterized by a strong chargeability high, moderate resistivity values and a magnetic response of about 150 nT above background (Lloyd, 1995).

According to Lloyd (1995), "The IP anomaly over the Red-Chris deposit itself is clearly open to the north and west and partially open to the south and east."

Lloyd (1995) recommends that 'number one' and 'number two' anomalies be tested by at least 12 and 8 diamond drill holes respectively. Furthermore, that an additional 40 drill holes will be required to test the limits of the chargeability anomaly over the Red-Chris deposit.



After American Bullion Minerals, 1995

MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

AMERICAN BULLION MINERALS LTD.
Vancouver, British Columbia, Canada

COMPILATION PLAN

RED-CHRIS PROPERTY
LIARD MINING DIVISION
BRITISH COLUMBIA, CANADA

DATE: FEB., 1995	SCALE: 1: 20,000
DRAWN BY: A.B.M.	DWG. NO. 7

PROFESSIONAL GEOSCIENTIST
PROVINCE OF BRITISH COLUMBIA
J. D. Blanchflower

TO ACCOMPANY REPORT BY J. D. BLANCHFLOWER, P. GEO.

MINERAL RESOURCE INVENTORY

Mr. G. Giroux of Montgomery Consultants Ltd. calculated kriged geological resources of the Red-Chris deposit using geological and drill hole assay data provided by American Bullion Minerals in the form of a geologic block model constructed from digitized sectional and planar plots. For the purposes of this study, individual blocks measuring 25 metres long by 25 metres wide by 15 metres deep were constrained by drill hole density, geology and composite assay data. Any blocks more than 50 metres beyond an envelope containing drill hole and assay information were not included, and any blocks within this envelope were included only if a minimum of 4 assay composites were found within a search ellipse of 75 by 75 by 38 metres from the block centre. The resources were calculated for all blocks from the bedrock surface to an arbitrary elevation of 1,050 m. Based upon a normal distribution of 2,604 specific gravity measurements, a mean specific gravity of 2.79 was used for the following grade-tonnage calculations. See Appendix XIV of this report for the complete report by Giroux (1995).

The report by Giroux (1995) contains a complete tabulation of the in-situ geologic resources of the Red-Chris deposit at copper cutoff grades ranging from 0.100 to 1.500 percent copper. It also contains drill-indicated in-situ geologic resources that Giroux (1995) has determined are 'Proven', 'Probable' and 'Possible', based upon drilling density, over the same range of copper cutoff grades. The following tables summarize the block model calculations for cutoff grades ranging from 0.200 to 0.500 percent copper, and for those blocks centred exclusively on the Main Phase lithologic unit.

TABLE IV
SUMMARY OF GEOLOGIC RESOURCE INVENTORY
(After Giroux, 1995)

Total Geologic Resource

Cutoff Grade (Copper %)	Resource (tonnes)	Grade Copper (%)	Grade Gold (g.p.T.)
0.200	320,380,000	0.379	0.296
0.250	251,640,000	0.421	0.328
0.300	186,140,000	0.473	0.364
0.350	137,400,000	0.526	0.410
0.400	100,110,000	0.584	0.458
0.450	77,700,000	0.630	0.505
0.500	60,830,000	0.674	0.549

These geologic resources include the following drill proven, probable and possible resources (Giroux, 1995).

a) **Drill Proven Geologic Resource**

Cutoff Grade (Copper %)	Resource (tonnes)	Grade Copper (%)	Grade Gold (g.p.T.)
0.200	11,220,000	0.401	0.297
0.250	8,960,000	0.446	0.325
0.300	7,120,000	0.490	0.357
0.350	5,500,000	0.539	0.383
0.400	4,330,000	0.583	0.412
0.450	3,390,000	0.627	0.434
0.500	2,750,000	0.664	0.456

b) **Drill Probable Geologic Resource**

Cutoff Grade (Copper %)	Resource (tonnes)	Grade Copper (%)	Gold (g.p.T.)
0.200	169,720,000	0.399	0.311
0.250	138,760,000	0.438	0.339
0.300	109,190,000	0.482	0.372
0.350	81,470,000	0.536	0.418
0.400	61,050,000	0.591	0.468
0.450	48,170,000	0.636	0.516
0.500	38,460,000	0.677	0.558

c) **Drill Possible Geologic Resource**

Cutoff Grade (Copper %)	Resource (tonnes)	Grade Copper (%)	Gold (g.p.T.)
0.200	139,440,000	0.353	0.278
0.250	103,920,000	0.397	0.312
0.300	69,830,000	0.457	0.353
0.350	50,430,000	0.509	0.399
0.400	34,730,000	0.571	0.447
0.450	26,140,000	0.620	0.494
0.500	19,620,000	0.668	0.544

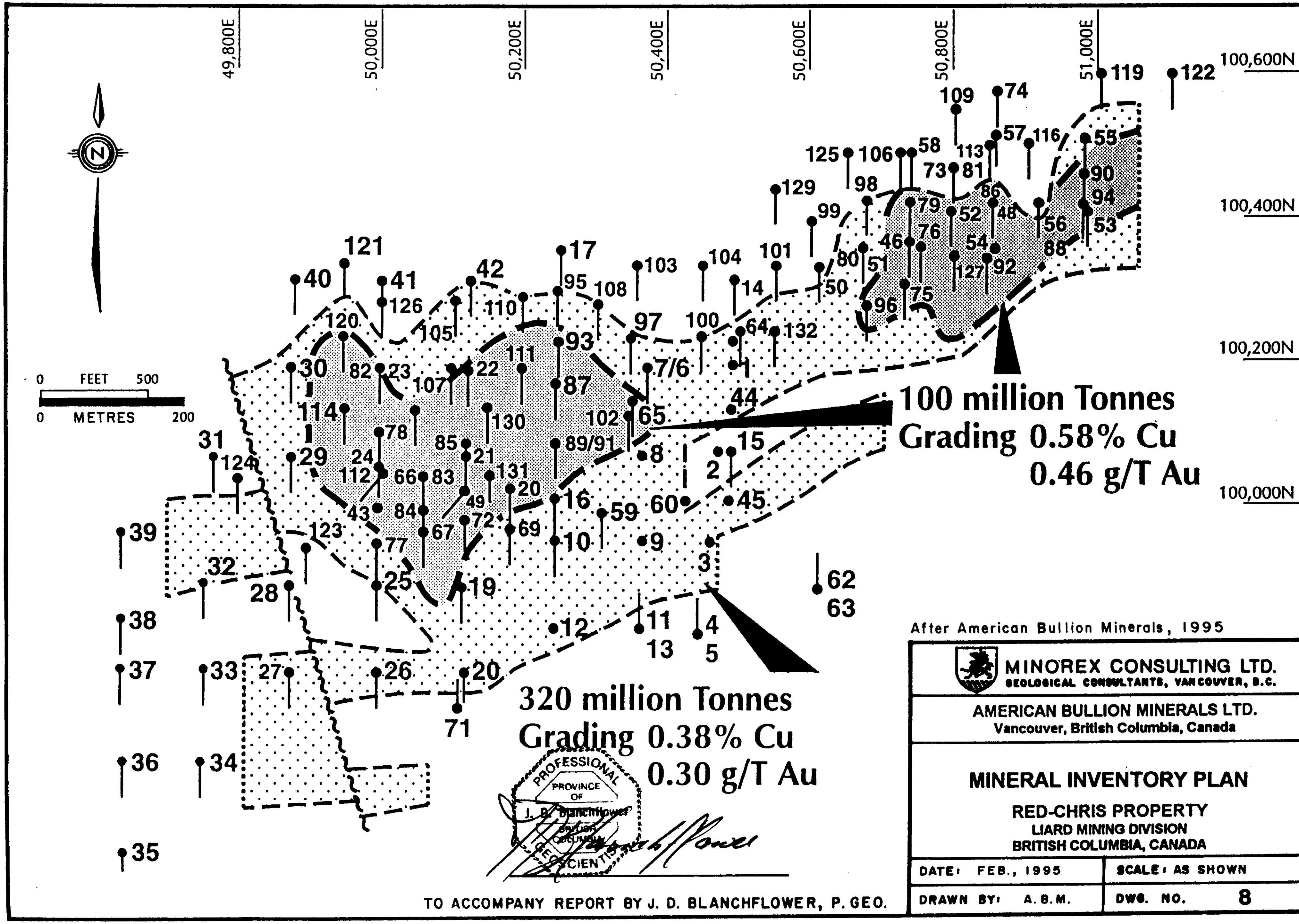
The above resources do not include any tonnage-grade figures for those blocks centred on barren Late Phase dykes. However, the total tonnage of these Late Phase blocks is 640,000 tonnes at a 0.100 percent copper cutoff, or less than 0.14 percent of the total geologic resources at that same cutoff grade (Giroux, 1995).

A comparison of the estimated pre-1994 geologic resources, as reported by Newell and Peatfield (1995) and Rebagliati (1994), with the current estimate shows that the 1994 exploration program successfully increased the resources of the Red-Chris deposit by approximately 150 percent, and that larger HQ- and NQ-core diamond drill testing is necessary to confirm attendant gold values.

Total Geologic Resources at a Cutoff Grade of 0.250 Percent Copper

	Resource (tonnes)	Grade Copper (%)	Gold (g.p.T.)
Newell and Peatfield (1995)	41,000,000	0.560	0.340
Rebagliati (1994)	97,866,000	0.440	0.290
Giroux (1995)	251,640,000	0.421	0.328

The aforementioned geologic resource estimates do not imply that all or any of these resources are mineable since considerably more drilling and detailed engineering studies are required to determine the viability of the Red-Chris deposit. Nevertheless, they are obviously very encouraging for the property owners.



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AMERICAN BULLION MINERALS LTD.
Vancouver, British Columbia, Canada

MINERAL INVENTORY PLAN

RED-CHRIS PROPERTY
LIARD MINING DIVISION
BRITISH COLUMBIA, CANADA

DATE: FEB., 1995	SCALE: AS SHOWN
DRAWN BY: A.B.M.	DWG. NO. 8

EXPLORATION POTENTIAL

The exploration potential of this property is excellent and its continued evaluation is certainly warranted. However, such work must be prioritized with the necessary drilling, engineering and environmental work that is required to complete a 1995 pre-feasibility study of the Red-Chris deposit. It is recommended that three geological, geochemical and geophysical exploration targets be tested with diamond drilling during the next field program, aside from continued exploration of the Red-Chris deposit. Thus, the next stage of exploration work should evaluate the following targets, in order of decreasing priority (see Figure 9):

1) **Red-Chris Deposit**

The Red-Chris deposit remains open to expansion in all directions. Further drilling is necessary to define the lateral limits of the deposit, increase the drilling density to upgrade the probable and possible categories of the geologic resources, and test beyond the limits of mineralization to determine waste to ore ratios for preliminary pit slope design. It is estimated that a minimum of 25 drill holes, totalling 12,500 metres, will be required to accomplish these tasks.

It is recommended that most of the drilling should be concentrated along the north-northwestern and south-southeastern limits of the Red-Chris deposit and particularly between grid coordinates 100000 to 100200 North by 50400 to 51000 East. Furthermore, that Sections 50100 East and 50800 East be drilled from waste to waste for preliminary pit design information. All of the drilling should be extended, if possible, to the 1,100-metre elevation. The locations of these proposed drill sites are shown on Figure 9 and in Table V of this report.

2) **Western and Northwestern Extensions of the Red-Chris Deposit (West Zone)**

During their tenure Texasgulf Inc. drilled fourteen shallow BQ-core holes west of gridline 49900 East to test for the west-southwestern extensions of the 'Main Zone'. Half of these holes intersected low grade (± 0.25 % copper) copper-gold mineralization hosted by weak quartz stockwork veining and the remaining holes intersected an extensive zone of gypsum veining that apparently trends due westward and extends to depths of 200 metres or more. From these results Texasgulf Inc. postulated that the Main Zone had been downdropped by a north-northwesterly trending normal fault extending from near the collar of DDH 26 to DDH 40 (see Figure 8).

In 1994, drill holes 94-112, -114, -123, and -124 were collared to test for buried mineralization west of the Main Zone and west of the inferred north-northwesterly displacement fault. The sites for this drilling were based largely on 1994 chargeability results and reported drill intercepts. The results, when compiled with the geological and geophysical results, indicate that there may indeed be such a fault in the vicinity but it appears to be a right-lateral, west side-down, oblique fault with the western extensions of the Main Zone downdropped and displaced northward on its western side. Given this structural setting and the occurrence of shallow gypsum vein stockworks in the vicinity, it is possible that significant buried copper-gold mineralization may exist between gridline 49900 East and the East Gully drainage.

It is recommended that this exploration target be tested by seven widely-spaced drill holes. Five of the proposed holes should test the area north of grid coordinates 100100 North and west of 49800 East but two holes should also test for buried mineralization between grid coordinates 99700 to 99900 North and west of 49600 East. See Figure 9 and Table V of this report for the locations of this proposed drilling.

3) **Western Geophysical Anomaly (Far West Zone)**

The results of 1970 to 1972 exploration work by Great Plains Development in the vicinity of this anomaly were very positive. Exploration results identified a large, easterly trending ellipsoidal zone of phyllic to potassic alteration within the Red stock with a coincident chargeability anomaly indicating a large zone of sulphide mineralization. Only three shallow drill holes, namely DDH 70-2, 72-1 and 72-6, tested a small portion of this anomaly before the property was acquired by Texasgulf Inc. No further drilling was undertaken in the area.

The 1994 geophysical results show a large, 600 by 600-metre circular anomaly centred at grid coordinates 99900 North by 48400 East. It has a coincident chargeability high and resistivity low which is very similar to the induced polarization signature of the Red-Chris deposit (Lloyd, 1995). Recent soil geochemical sampling only covered the southern portion of this anomaly but the copper- and gold-in-soil geochemical results along gridline 48500 East are highly anomalous.

Based strictly on the size, shape and location of the chargeability anomalies on the western and eastern sides of the West Gully drainage it is possible to infer a northerly, right-lateral, west side-down oblique fault structure along the drainage; similar in movement sense to the structure along the western edge of the Red-Chris deposit. It could also be inferred that the circular chargeability anomaly on the west side of the West Gully drainage may reflect the downdropped and displaced sulphide-rich hood of a hydrothermal system, and the arcuate chargeability anomaly east of the West Gully the uplifted deeper stem of the system. Drilling will be required to test this theory but, if proven true, the western geophysical anomaly probably represents the best exploration target for discovering significant, near-surface copper-gold mineralization.

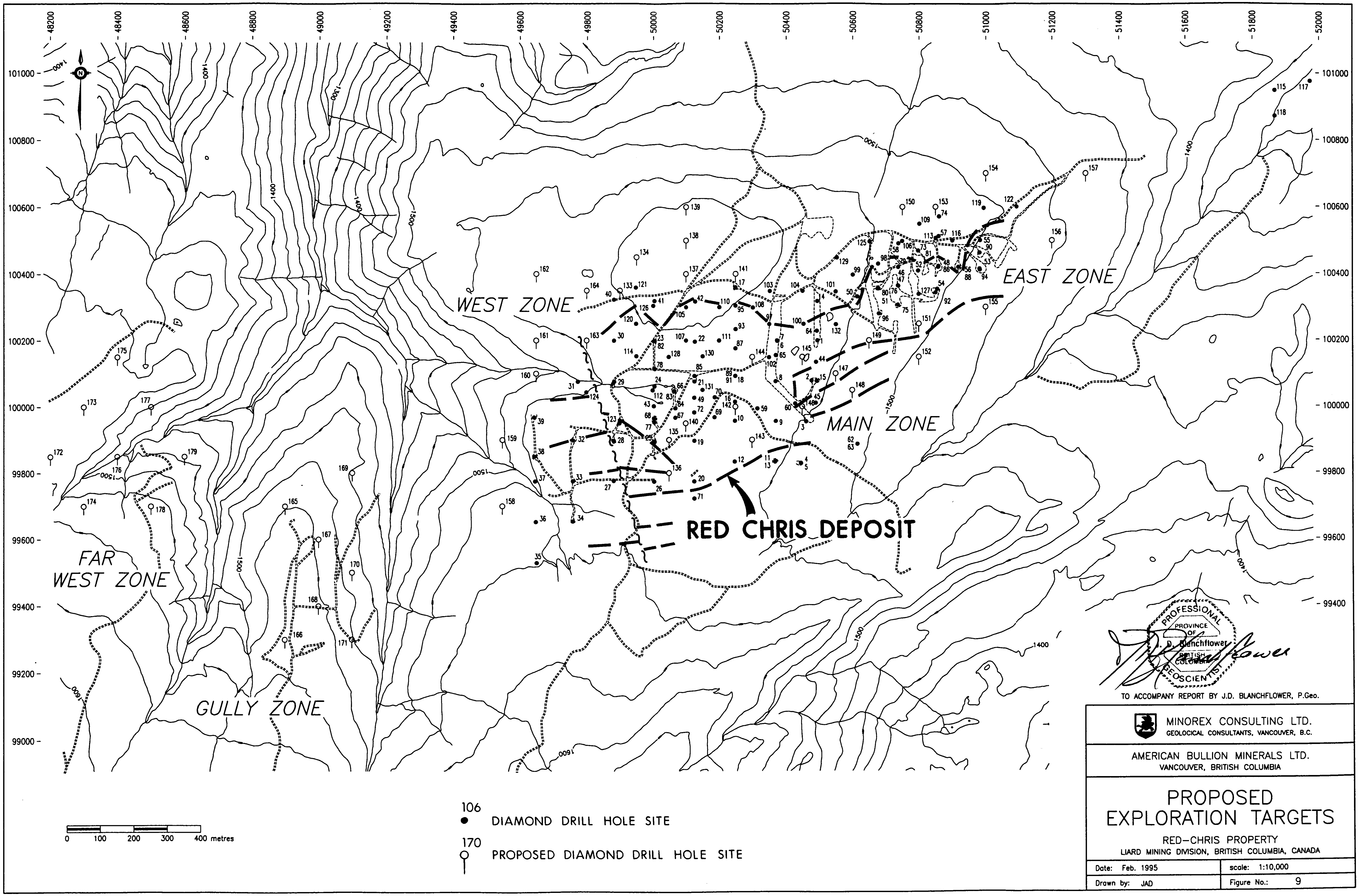
Eight NQ-core diamond drill holes are proposed to test this exploration target area in a staggered widely-spaced pattern. The locations of these proposed drill sites are shown on Figure 9 and Table V of this report.

4) **Headwaters of the East and West Gully Drainages (Gully Zone)**

The Gully zone has prominent limonitic gossans along the drainages and, thus, it attracted most of the early exploration attention. Between 1970 and 1972, Great Plains Development conducted geological, geochemical and geophysical surveys, and excavated several trenches within this target area with very positive results. One shallow angle hole (i.e. DDH 70-2) was drilled in 1970 and it intersected low-grade copper mineralization grading 0.25 percent over a length of 73 metres (McInnis, 1972). Five more shallow holes were drilled in 1972 before Texasgulf Inc. assumed operatorship of the property. Several of these holes intersected significant copper mineralization hosted by intensely fractured, altered and pyritized monzodiorite of the Red stock. Except for geological mapping, this area was ignored by Texasgulf Inc. during their tenure.

The 1994 geophysical and soil geochemical results both show an arcuate, convex east-facing anomaly in the vicinity of past drilling. The chargeability anomaly is centred at grid coordinates 99500 North by 48900 East and is approximately 700 metres long by 400 metres wide. It is characterized by a strong chargeability high, moderate resistivity values and a magnetic response of about 150 nT above background (Lloyd, 1995). Anomalous copper-in soil geochemical values range from 100 to 4,196 p.p.m. with the highest values concentrated in an arcuate, concave west-facing zone centred at grid coordinates 99750 North by 49150 East. The highest gold-in-soil values occur as a northerly trending zone from 99200 to 99950 North; coinciding with the highest copper-in-soil values.

Seven NQ-core diamond drill holes are proposed to test this exploration target in a staggered widely-spaced pattern. The locations of these proposed drill sites are shown on Figure 9 and Table V of this report.


WEST ZONE
EAST ZONE
MAIN ZONE
FAR WEST ZONE
GULLY ZONE
RED CHRIS DEPOSIT
106
DIAMOND DRILL HOLE SITE
170
PROPOSED DIAMOND DRILL HOLE SITE
0 100 200 300 400 metres
TO ACCOMPANY REPORT BY J.D. BLANCHFLOWER, P.Geo.
MINOREX CONSULTING LTD.
GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.
AMERICAN BULLION MINERALS LTD.
VANCOUVER, BRITISH COLUMBIA
PROPOSED
EXPLORATION TARGETS
RED–CHRIS PROPERTY
LIARD MINING DIVISION, BRITISH COLUMBIA, CANADA
Date: Feb. 1995
scale: 1:10,000
Drawn by: JAD
Figure No.: 9

CONCLUSIONS

The Red-Chris deposit is a bulk tonnage copper-gold deposit with hybrid alkalic and calc-alkalic porphyry copper characteristics. It is hosted by a latest Upper Triassic to earliest Lower Jurassic hypabyssal intrusion of plagioclase-hornblende porphyry monzodioritic composition. The intrusion, called the 'Red stock', is probably comagmatic with the surrounding alkaline volcanic rocks which are apparently lithologic equivalents of the Stuhini Group.

The emplacement of the intrusion and its subsequent pervasive alteration, sulphide mineralization and late-stage dykes are controlled by reactivated, east-northeasterly faulting; probably related to the Ealue Lake Fault system. Several north-northwesterly normal and oblique faults occur along the length of the Red stock, and they appear to have been responsible for local westside-down, right lateral displacements of the copper-gold mineralization, its associated quartz vein stockwork zones, and other copper (± gold) showings along strike of the deposit. The South Boundary fault, which obliquely truncates the Red stock south of the deposit, is a east-northeasterly normal fault that has downdropped clastic sedimentary rocks of the Middle Jurassic Bowser Lake Group in unconformable contact with the Red stock and Upper Triassic strata.

The Red stock is comprised of two phases of plutonic rocks which are cut by several post-mineral dykes of diorite to monzonite composition. The 'Main Phase' is a medium-grained, weakly- to intensely-altered plagioclase-hornblende porphyritic monzodiorite that hosts all of the known copper-gold mineralization and constitutes approximately 80 to 90 percent of the stock. The 'Late Phase' rocks are similar in composition, notably fresh to very weakly altered, usually barren of copper-gold mineralization, and represent approximately 10 to 18 percent of the stock. The late-stage, post-mineral dykes account for the rest of the stock. They are commonly porphyritic, range in composition from dioritic to monzonitic, and are usually less than 1 to 5 metres wide.

Chalcopyrite and lesser bornite occur as disseminations and fracture fillings associated with well developed quartz-sulphide vein stockwork zones and intensely sheeted quartz veining. These zones are spatially- and probably genetically-related to east-northeasterly, subvertical faulting along the central east-northeastern axis of the Red stock. Later coincident faulting has locally displaced the stockwork zones and controlled the emplacement of Late Phase and late-stage dykes. Pyrite and covellite also occur within the mineralized vein stockwork zones; however, pyrite is most abundant as a halo peripheral to the copper-rich mineralization. Microscopic gold grains are intimately associated with the copper sulphide minerals and their respective grades are proportional.

The soil geochemical survey results, when compiled with the reported basal till sampling results, show a large and continuous east-northeasterly trending copper-in-soil geochemical anomaly covering most of the Red stock over a strike length of 3.8 kilometres. In the vicinity of the East and West Gullies anomalous copper-in-soil geochemical values (>100 p.p.m. copper) form an arcuate, concave west-facing zone centred at grid coordinates 99750 North by 49150 East. High gold-in-soil geochemical values (>50 p.p.b. gold) occur as a northerly trending zone from 99200 to 99950 North, coincident with the highest copper-in-soil values.

The induced polarization survey successfully outlined sulphide-rich zones along the mapped length of the Red stock, including two significant exploration targets. The highest priority exploration target is centred at grid coordinates 99900 North by 48400 East, is approximately 600 metres long by 600 metres wide, and has an induced polarization signature similar to that of the Red-Chris deposit. The second target is centred at grid coordinates 99500 North by 48900 East, is approximately 700 metres long by 400 metres wide, and is characterized by a chargeability high, moderate resistivity values and a magnetic response of about 150 nT above background. Furthermore, the induced polarization anomaly over the Red-Chris deposit shows that the mineralization continues in all directions beyond the current drilling (Lloyd, 1995).

Most of the 1994 diamond drilling evaluated the Red-Chris deposit. Fifty-five drill holes were collared within the deposit area to test its lateral and vertical extent, and confirm the continuity and grade of the copper-gold mineralization. This drilling discovered continuous mineralization over a vertical distance of 400 metres and expanded the lateral dimensions of the deposit in a north-south direction. The deposit remains open and further drilling is necessary to define the limits of the copper-gold mineralization both laterally and vertically.

Three other drill holes tested a geophysical anomaly approximately one kilometre east of the Red-Chris deposit. They intersected pervasively altered and pyritized intrusive and volcanic rocks but did not discover any significant copper or gold mineralization. It is estimated that only one-third of the exploration targets within the Red stock have been drill tested, and the geophysical or geochemical anomalies within the Upper Triassic volcanic strata have not been drilled.

The mineral inventory of the Red-Chris deposit has been increased 150 percent, exceeding American Bullion's 1994 goal of identifying 90,000,000 tonnes of potentially economic mineralization on the property. According to Giroux (1995), the total drill-indicated geological resources of the deposit are estimated at:

Cutoff Grade (Copper %)	Resource (tonnes)	Grade	
		Copper (%)	Gold (g.p.T.)
0.200	320,380,000	0.379	0.296
0.250	251,640,000	0.421	0.328
0.300	186,140,000	0.473	0.364
0.350	137,400,000	0.526	0.410
0.400	100,110,000	0.584	0.458
0.450	77,700,000	0.630	0.505
0.500	60,830,000	0.674	0.549

Each of these estimates contains varying resources that have been deemed drill proven, probable and possible by Giroux (1995). With further lateral and deep drilling these resources could be substantially increased. However, the primary objective for further work should be to upgrade the inferred and drill possible resources to drill proven or probable categories for a pre-feasibility study.

Continued aggressive, detailed exploration of the Red-Chris deposit and the three exploration targets is fully justified. However, American Bullion Minerals Ltd. should focus near-term exploration at completing a 1995 pre-feasibility report on the Red-Chris deposit. Such a report will require immediately expanded metallurgical, environmental and engineering studies to achieve its objective. The cost of the next stage of exploration and the preparation of the pre-feasibility report is estimated at CAN $ 4.16 million.

Submitted by,
MINOREX CONSULTING LTD.

J. Douglas Blanchflower, P. Geo.
Consulting Geologist

STATEMENT OF 1994 EXPENDITURES

The following exploration expenditures are for the period of January 1 to December 31, 1994 and are exclusive to the Red-Chris property. They have been provided by American Bullion Minerals Ltd.

Item	Description	Cost (CAN $)
Analyses	Copper and gold geochemical analyses, I.C.P.	$ 8,796.75
Assays	Drill core assays, check-assays, duplicate assays, etc.	167,978.95
Accommodation	Camp and logging facilities construction, motel, etc.	363,897.13
Consulting	Environmental	92,904.45
Consulting	Feasibility	2,515.00
Consulting	Geological	214,626.44
Legal		5,850.00
Drafting	CAD drafting, map preparation, reproduction	38,718.15
Expediting	SatTel rental, telephone, expediting	26,194.60
Drilling	58 HQ-/NQ-core holes totalling 21,417.08 m. or 70,266 ft.;	1,790,656.18
Drilling	Site Preparation and heavy equipment rental	86,045.88
Equipment	Lease/rentals	22,933.46
Equipment	Consumables	49,518.03
Equipment	Capital	6,022.22
Fuel	Camp and camp service vehicle fuel	9,914.09
Salary and Wages	American Bullion field and support employees	253,544.72
Casual Salary and Wages	American Bullion field and support employees	3,282.90
Surveys	Geochemical	5,395.75
Surveys	Geophysical	77,853.81
Surveys	Control	21,534.27
Surveys	Linecutting	63,119.11
Transportation	Airlines	22,706.33
Transportation	Fixed Wing	7,768.00

STATEMENT OF 1994 EXPENDITURES (Continued)

Item	Description	Cost (CAN $)
Transportation	Helicopter	630,273.18
Transportation	Vehicle	5,166.23
Transportation	Freight	48,164.36
Trenching and roads	Trench and road reclamation; drill access road construction	8,314.76
Miscellaneous	Indirect	800.61
Project Management Fees		243,347.41
TOTAL PROJECT EXPENDITURES		**$ 4,277,842.77**

PROPOSED 1995 EXPLORATION PROGRAM

It is recommended that the accelerated and detailed exploration of the property be continued. This work should be focused primarily at fulfilling the requirements of a 1995 pre-feasibility study and secondarily at investigating the three exploration targets on strike of the Red-Chris deposit. This exploration work should commence in April and be completed by October.

The proposed exploration work should include:

1) Focus studies - to determine the economic, geologic and engineering parameters required for a viable mining operation on the property.

2) Detailed HQ-core diamond drilling - to define the lateral limits of the deposit, increase the drilling density to upgrade the probable and possible geologic resources, and test beyond the limits of mineralization to determine ore to waste ratios for preliminary pit slope design. It is estimated that a minimum of 25 drill holes, totalling 12,500 metres, will be required to accomplish this recommendation. Further drilling should be on section and at an azimuth of 180° and dip of -60° to maintain established drilling profiles for resource estimation.

   It is recommended that most of the drilling should be concentrated along the north-northwestern and south-southeastern limits of the Main and East Zones and particularly between grid coordinates 100000 to 100200 North by 50400 to 51000 East. Furthermore, that Sections 50100 East and 50800 East be drilled from waste to waste for preliminary pit design information. The proposed drill sites are shown on Figure 9 and in Table V of this report.

   All of the drilling should be extended, if possible, to the 1,100-metre elevation. The assaying and check-assaying procedures of the 1994 drilling campaign should be maintained, and systematic geochemical analyses (31-element I.C.P.) should be undertaken on a minimum of 20 percent of the samples. Drilling results should be assessed frequently during the proposed program to ensure that they are fulfilling the requirements of a 1995 prefeasibility study.

3) Exploratory HQ- and/or NQ-core diamond drilling - to evaluate the northwestern and western extensions of the Red-Chris deposit, and the large geophysical anomalies between the East and West Gully drainages and at the western end of the survey control grid.

   Seven HQ- and/or NQ-core diamond drill holes, totalling 3,400 metres, are proposed to test for lateral and/or downdropped extensions of the Main Zone. This drilling should be at an azimuth of 180°, a dip of -60°, and staggered to intersect any east-west structural trends.

   Fifteen NQ-core diamond drill holes, totalling 5,500 metres, are recommended to test the two large geophysical anomalies. This drilling should be conducted like that of the northwestern extension of the Main Zone. The proposed drill sites are shown on Figure 9 and in Table V of this report.

4) Metallurgical testing - to identify and optimize recoveries of copper and gold, and maximize copper and/or gold concentrate grades.

5) Acid Base Accounting studies - to provide the necessary net neutralizing potential data for both high and low grade copper-gold mineralization, as well as the waste rock. This data is required for both the prefeasibility study and early permitting of development work on the property.

6) Environmental studies - to complete the baseline environmental studies initiated in 1994.

7) Access road construction - pending a mid-program review of the exploration results, the rough access road route should be upgraded for vehicle access from the Coyote Creek-Ealue Lake road;

8) Socioeconomic studies and public information meetings - to apprise the local residents of exploration results and possible development plans; and

9) Pre-feasibility study - to determine the geologic resources and possible viability of a mining and milling operation on the property.

The estimated cost of the above recommended exploration program is CAN $ 4,162,628.00 (see Proposed Exploration Budget).

TABLE V

PROPOSED 1995 DIAMOND DRILL HOLES

Propose Drill Hole	Core Size	Collar Location Northing	Easting	Az (deg)	Dip (deg)	Estimated Length (m)
Red-Chris Deposit						
P - 133	HQ	100350	49900	180.0	-60.0	487.68
P - 134	HQ	100450	49950	180.0	-60.0	487.68
P - 135	HQ	99900	50050	180.0	-60.0	487.68
P - 136	HQ	99800	50050	180.0	-60.0	487.68
P - 137	HQ	100400	50100	180.0	-60.0	487.68
P - 138	HQ	100500	50100	180.0	-60.0	487.68
P - 139	HQ	100600	50100	180.0	-60.0	487.68
P - 140	HQ	99950	50100	180.0	-60.0	487.68
P - 141	HQ	100400	50250	180.0	-60.0	487.68
P - 142	HQ	100000	50250	180.0	-60.0	487.68
P - 143	HQ	99900	50300	180.0	-60.0	487.68
P - 144	HQ	100150	50300	180.0	-60.0	487.68
P - 145	HQ	100150	50450	180.0	-60.0	487.68
P - 146	HQ	100000	50450	180.0	-60.0	487.68
P - 147	HQ	100100	50550	180.0	-60.0	487.68
P - 148	HQ	100050	50600	180.0	-60.0	518.16
P - 149	HQ	100200	50650	180.0	-60.0	518.16
P - 150	HQ	100600	50750	180.0	-60.0	518.16
P - 151	HQ	100250	50800	180.0	-60.0	518.16
P - 152	HQ	100150	50800	180.0	-60.0	518.16
P - 153	HQ	100600	50850	180.0	-60.0	518.16
P - 154	HQ	100700	51000	180.0	-60.0	518.16
P - 155	HQ	100300	51000	180.0	-60.0	518.16
P - 156	HQ	100500	51200	180.0	-60.0	518.16
P - 157	HQ	100700	51300	180.0	-60.0	518.16
Western Extension to Main Zone						
P - 158	HQ/NQ	99700	49550	180.0	-60.0	487.68
P - 159	HQ/NQ	99900	49550	180.0	-60.0	487.68
P - 160	HQ/NQ	100100	49650	180.0	-60.0	487.68
P - 161	HQ/NQ	100200	49650	180.0	-60.0	487.68
P - 162	HQ/NQ	100400	49650	180.0	-60.0	487.68
P - 163	HQ/NQ	100200	49800	180.0	-60.0	487.68
P - 164	HQ/NQ	100350	49800	180.0	-60.0	487.68

TABLE V

PROPOSED 1995 DIAMOND DRILL HOLES

Propose Drill Hole	Core Size	Collar Location Northing	Collar Location Easting	Az (deg)	Dip (deg)	Estimated Length (m)
Gully Zone						
P - 165	NQ	99700	48900	180.0	-60.0	365.76
P - 166	NQ	99300	48900	180.0	-60.0	365.76
P - 167	NQ	99600	49000	180.0	-60.0	365.76
P - 168	NQ	99400	49000	180.0	-60.0	365.76
P - 169	NQ	99800	49100	180.0	-60.0	365.76
P - 170	NQ	99500	49100	180.0	-60.0	365.76
P - 171	NQ	99300	49100	180.0	-60.0	365.76
Far West Zone						
P - 172	NQ	99850	48200	180.0	-60.0	365.76
P - 173	NQ	100000	48300	180.0	-60.0	365.76
P - 174	NQ	99700	48300	180.0	-60.0	365.76
P - 175	NQ	100150	48400	180.0	-60.0	365.76
P - 176	NQ	99850	48400	180.0	-60.0	365.76
P - 177	NQ	100000	48500	180.0	-60.0	365.76
P - 178	NQ	99700	48500	180.0	-60.0	365.76
P - 179	NQ	99850	48600	180.0	-60.0	365.76
Total Estimated Drilling (m.)						**21,396.96**

PROPOSED 1995 EXPLORATION BUDGET

The following cost estimates for the recommended exploration program and pre-feasibility report are based upon actual 1994 expenditures and proposed 1995 costs from various contractors.

Item	Description	Estimated Cost (CAN $)
Analyses -	500 soil samples @ $10.00/sample	$ 5,000.00
Assays -	1,000 surface rock samples @ $20.00/sample	20,000.00
	7,500 core samples @ $20.00/sample	150,000.00
	750 duplicate samples @ $20.00/sample	15,000.00
	700 check samples @ $15.00/sample	10,500.00
	Standards samples	10,000.00
	800 ICP samples @ $15.00/sample	12,000.00
Accommodation -	Camp/core logging renovation	25,000.00
	Camp operations - 25 persons @ 140 days @ $40.00/day	140,000.00
	Hotel/motel during mob/demob	14,000.00
Environmental -	Baseline studies	37,000.00
	Environmental report	20,000.00
	Reclamation	62,000.00
	Public Hearings	15,000.00
Consulting -	Geological	126,000.00
	Engineering/Feasibility	152,000.00
	Metallurgical - Preliminary testing, bulk testing, and ABA	65,000.00
Legal -		5,000.00
Drafting	CAD drafting, map preparation, reproduction	38,000.00
Expediting -	SatTel rental, telephone, expediting	53,300.00
Drilling -	70,000 ft. of HQ-core drilling @ $25.00/ft	1,750,000.00
	Site preparation, heavy equipment rental	60,000.00
Equipment -	Sperry Sun, generator, radios	36,000.00
Fuel -	Camp and camp service vehicle fuel	52,000.00
Claim staking -		6,000.00
Assessment -	Assessment filing fees	8,000.00
Salaries and wages -	American Bullion office and field personnel	289,000.00
Topographic mapping -	Drill hole and property surveying; topographic map preparation	24,000.00
Mob/Demo Expenses -	Mobilization/demobilization travel expenses	35,000.00

PROPOSED EXPLORATION BUDGET (Continued)

Item	Description	Estimated Cost (CAN $)
Fixed-wing Support -	Fixed-wing charters	10,000.00
Helicopter Support -	Mobilization; drilling and camp support	370,000.00
Vehicle Support -	Truck rental; quad motorcycle rental	28,000.00
Freight Expenses -	Sample shipping to Smithers; food/supplies from Smithers	32,000.00
Road Construction -	Property access road reconstruction and bridge construction	230,000.00
Total Expenses		**$ 3,927,800.00**
Project Management Fee		234,828.00
TOTAL ESTIMATED EXPLORATION BUDGET		**$ 4,162,628.00**

Estimated Project Costs Per Joint Venture Partners

American Bullion Minerals (90%)	$ 3,746,965.00
Teck Corporation (10% Participating Interest Net Property Payments)	$ 415,663.00

The above Estimates of Cost consider the use of Canadian-based contractors but do not include any applicable Goods and Services taxes which are refundable.

STATEMENT OF QUALIFICATIONS

I, J. DOUGLAS BLANCHFLOWER, of the Municipality of Delta, Province of British Columbia, DO HEREBY CERTIFY THAT:

1) I am a Consulting Geologist with a business office at 11967 - 83A Avenue, Delta, British Columbia, V4C 2K2; and President of Minorex Consulting Ltd.

2) I am a graduate of Economic Geology with a Bachelor of Science, Honours Geology degree from the University of British Columbia in 1971.

3) I am a Registered Professional Geoscientist with the Association of Professional Engineers and Geoscientists of British Columbia (No. 19086).

4) I am a Fellow of the Geological Association of Canada (No. F0046).

5) I have practised my profession as a geologist for the past twenty-three years.

   Pre-Graduate field experience in Geology, Geochemistry and Geophysics (1966 to 1970).

   Three years as Geologist with the B. C. Ministry of Energy, Mines and Petroleum Resources (1970 to 1972).

   Seven years as Exploration Geologist with Canadian Superior Exploration Limited (1972 to 1979).

   Three years as Exploration Geologist with Sulpetro Minerals Limited (1979 to 1982).

   Thirteen years as Consulting Geologist and President of Minorex Consulting Ltd. (1982 to 1995).

6) I own no direct, indirect or contingent interest in the subject claims, nor shares in or securities of **AMERICAN BULLION MINERALS LTD.**

7) I supervised the 1994 exploration program on the **RED - CHRIS** Property from August 5, 1994 until November 7, 1994, and later wrote this report which documents the results of this work.

8) I consent to the use of this report in a Statement of Material Facts.

J. Douglas Blanchflower, P. Geo.
Consulting Geologist

Dated at Delta, British Columbia, Canada this 22nd day of February, 1995

ACKNOWLEDGMENTS

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