R N. KIRKIAM

SUMMARY REPORT ON THE TANTALUS RESOURCES LTD. TREATY CREEK PROJECT

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ISKUT AREA SKEENA MINING DIVISION BRITISH COLUMBIA

J. Chapman, F.G.A.C. W. Raven, F.G.A.C. A. Walus, M.Sc.

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SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

R L. KIRKHAN

Exploration on the Treaty Creek Project during 1990 was concentrated on the Treaty Gossan and seven new showings discovered on the GR2 claim. Grid establishment over the Treaty Gossan and the new showings was implemented to provide control for geological mapping, prospecting, geochemical rock and soil sampling along with magnetic, VLF-EM and UTEM geophysical surveys.

On the Treaty Gossan a northeast-southwest trending 2.5 km baseline was established to cover the main alteration zone and extend into the surrounding rocks. Cross lines at 100 m spacing were flagged and picketed to provide control for subsequent surveys. Mapping was completed over the east half of the grid however the early onset of winter conditions precluded completion of the west half. Soil sampling at either a 25 m or 50 m spacing was completed over the entire grid. Geophysical surveys were completed to line 22W. Approximately 17.5 km of lines were flagged and picketed.

The area of new showings comprises seven separate showings on the GR2 claim. A small grid, of 5.225 line km, was emplaced over the area of the showings to provide control for geological mapping, trenching and a UTEM geophysical survey, much of which was conducted over an icefield.

The remainder of the property received only very limited prospecting and mapping during this program.

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On the Treaty Gossan the area mapped is underlain predominantly by rocks of the Betty Creek and Mt. Dilworth Formations, which host the alteration zone. Betty Creek Formation rocks consist of massive to poorly bedded siltstone and argillite. These volcano-sedimentary rocks are accompanied by massive to vesicular andesitic flows. The Mt. Dilworth Formation consists of rhyolitic to dacitio airfall tuffs and flows.

The Treaty Gossan alteration zone is represented by a very strong, pervasive pyrite-quartz-sericite altered rock with massive to schistose structure. This rock is strongly oxidized resulting in a bright yellow-orange-brown colour giving rise to the large distinctive area of gossan staining. Within the gossan, just south of lines 10W to 13W are numerous boulders and one small outcrop of a laminated chert-like rock carrying alunite, native sulphur, prehnite and selenite which appears to be a submarine hot springs deposit.

Geological mapping and sampling has revealed three stages of mineralization related to different events. These events are as follows: mineralization related to extrusive rocks of the Mt. Dilworth Formation, a porphyry copper type system (the main Treaty Gossan alteration zone) and local epithermal style mineralization.

The Mt. Dilworth Formation, which partially hosts the nearby Eskay Creek Deposit, can be traced across the large nunatak which contains the Treaty Gossan. Outcrops of the Mt. Dilworth Formation within the mapped area are confined to a small part of the grid though further work may reveal more of this unit. Maximum values of 0.54 oz/ton gold and 3.17 oz/ton silver were received from grab samples of this formation.

The porphyry type alteration system hosts the greatest potential for a large tonnage deposit as the alteration zone covers approximately 1 square km. Actual mineralization within the zone consists chiefly of pyrite which constitutes 3-7% of the rock. Rock and soil samples collected over the zone returned weakly anomalous copper values, up to 235 ppm and 147 ppm respectively and significant gold values, 340 ppb and 290 ppb, over a wide area. The intensity of the alteration and the possibility that the gossan represents the outer phyllic alteration zone of a porphyry system would account for the low copper values.

Also of interest within the Treaty Gossan alteration zone is the overprint of an epithermal system. The possibility for much higher grade mineralization, particularly gold, within the system is significant as evidenced by the high grades present, up to 24.0 oz/ton gold at the Konkin Gold Zone showings, within a smaller alteration zone to the northwest. A considerable amount of float material and one small ontcrop of chert-like lamineted rock have been mapped at the south end of lines 10W to 13W. The rock is composed of very fine grained (chert) quartz, alunite, and disseminated pyrite comprising 1-3 mm thick layers. It likely represents a precipitate of a hot springs (sinter) in a marine environment. Subsequent to its formation native sulphur, phrenite, selenite, and part of the alunite were introduced along small cross-cutting fractures. These low temperature minerals are not found within the pyrite-quartz-sericite altered rock which suggest that the laminated rock and the main Treaty Gossan alteration rock constitute separate systems. Elevated values in gold (255 ppb), silver (2.4 ppm), lead (298 ppm) and barium (643 ppm) were returned from soil samples in this area.

Further work is recommended on the Treaty gossan area, continuing where the 1990 surveys left off. The remainder of the grid should be mapped to complete the detailed work over the main alteration zone. In addition the grid should be extended to the northeast (east of Line 0+00) to delineate the extent of the Mt. Dilworth Formation and its potential for significant mineralization. Soil sampling, magnetic and VLF-EM electromagnetic surveys should be completed over all new grids.

Test lines of IP and deeper penetrating EM surveys, such as Max-Min and UTEM should be conducted over the Gossan during the next phase prior to a trenching and drilling program. Diamond drilling will be required to test the alteration zone at depth.

Exploration on the new showings, Zones A through F on the GR-2 claim, indicate that they are hosted by a series of north-northeast trending shear zones. These are up to 50 m wide, and have been partially or completely replaced by sericite, quartz, clay, pyrite, calcite and barite and locally contain quartz-calcite-sulphide veins.

Gold and silver results were high with up to 0.401 oz/ton and 100 oz/ton respectively, along with copper to 1.93%, zinc to 37.4%, and lead to 42.7% from grab samples.

The UTEM survey resulted in several weak to moderate conductors exhibiting the same trend as the showings. No follow up work was done on these anomalies due to the onset of winter conditions and heavy snow.

Further work is required to expand the grid coverage in this area and to complete a more detailed mapping survey of the showings prior to additional geophysical surveys, trenching and drilling.

In addition to the above mentioned programs further prospecting and mapping is required on the numerous other gossans visible on the property. A zone of laminated sulphides located within upper Mt. Dilworth Formation rocks near the toe of the Treaty Glacier was located during the 1990 field season by the Geological Survey of Canada. Due to the early snowfall this could not be followed up on 1990 and should be examined in detail during the next program. Costs for the Phase III program are estimated at \$700,000.

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INTRODUCTION

This report is prepared by OreQuest Consultants. Ltd. at the request of Prime Explorations on behalf of Tantalus Resources Ltd. It outlines the work program carried out on the Treaty Creek Project during 1990, presents the results of this work and makes recommendations for further work. The information contained herein is derived from supervision and execution of the field program, the referenced cited, and familiarity with the Iskut-Sulphurets area gained by OreQuest on behalf of various clients from 1987 to 1990.

The work program on the Treaty Creek Project consisted of grid establishment, detailed geological mapping, prospecting, geochemical rock and soil sampling on both the Treaty Gossan and the new showings on the GR-2 claim. Geophysics in the form of magnetic and VLF-EM surveys were carried out on the Treaty Gossan with a UTEM survey used on the new showings area. The program commenced August 4, 1990 and terminated September 27, 1990 due to the onset of winter conditions. The early onset of winter precluded completion of the grid mapping on the Treaty Gossan with half of the total grid area mapped in detail.

LOCATION AND ACCESS

The Treaty Creek Project is located about 80 km north-northwest of Stewart, British Columbia in the Skeena Mining Division on NTS map 104B/9. It is centred at approximately $56^{o}35'N$ latitude and $130^{o}07'W$ longitude (Figure 1).



Access to the property is by helicopter from the Bronson airstrip 60 km to the west or from the Bell II staging area on the Stewart-Cassiar Highway, Highway 37, about 25 km to the northeast. The B.C. government and several interested mining companies in the area are presently conducting environmental studies and surveying for a road location from Highway 37 to Bronson Creek.

Frequent scheduled and flights charter from Smithers, approximately 330 km southeast, to the Bronson Creek strip service the exploration and mining activity in the area. Until recently the Johnny Mountain airstrip, located 60 km west of the Treaty Creek Project, was serviced regularly from Terrace. The Snippaker Creek airstrip, located 40 km west of the claim area, was used during the 1990 season by single-engine fixed wing aircraft. Several old landing strips are located south of the property on the Unuk River but would require work to be serviceable. Exploration work was done via helicopter from the OreQuest seasonal base camp located on a small lake at the northwest end of the VR-5 claim, the northwest corner of the Treaty Creek Project.

PHYSIOGRAPHY AND VEGETATION

Elevations on the Treaty Creek Project range from 950 m in the Treaty Creek valley on the east side of the property to over 2200 m on the peaks to the west, east and south. Slopes range from moderate to very precipitous.

Low lying regions are vegetated by mature mountain hemlock and balsam. This changes to subalpine and alpine vegetation consisting of stunted shrubs and grasses. The claims cover the icefield at the head of Treaty, South Treaty and Atkins Glaciers. Much of the property is covered by ice.

Climate in the area is severe, particularly at the higher elevations. Heavy snowfalls in winter and rain in the short summer working season are typical of the Iskut-Sulphurets area. Inclement weather conditions and reliance on helicopter transport make this a high cost area to explore for minerals.

CLAIM STATUS

The property is located in the Skeena Mining Division on maps 104B/9E and 9W centered at approximately 56°35'N latitude and 130°07'W longitude (Figure 2).

The Treaty property consists of 27 modified grid claims, the status of which is as follows:

TABLE I - CLAIM INFORMATION

Claim Name	No. of Units	Record No.	Date of Record	Expiry Date
Treaty	12	2006	Jan. 9, 1980	Jan. 9/93
TR 1	18	4957	Sept. 30, 1985	Sept. 30/93
TR 2	18	4958	Sept. 30, 1985	Sept. 30/93
TR 3	15	4959	Sept. 30, 1985	Sept. 30/93
TR 4	18	4960	Sept. 30, 1985	Sept. 30/93
TR 5	20	4961	Sept. 30, 1985	Sept. 30/95



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Claim Name	No. of Units	Record No.	Date of Record	Expiry Date
TR 6	15	4962	Sept. 30, 1985	Sept. 30/93
TR 7	20	4963	Sept. 30, 1985	Sept. 30/93
TR 8	8	4964	Sept. 30, 1985	Sept. 30/95
TR 9	20	4965	Sept. 30, 1985	Sept. 30/93
TR 10	15	4966	Sept. 30, 1985	Sept. 30/93
TR 11	6	4967	Sept. 30, 1985	Sept. 30/93
TR 12	9	4968	Sept. 30, 1985	Sept. 30/93
TR 13	8	7770	Aug. 6, 1989	Auq. 6/93
TR 14	8	7771	Aug. 6, 1989	Aug. 6/93
GR1	10	7248	Feb. 10, 1989	Feb. 10/93
GR2	14	7249	Feb. 10, 1989	Feb. 10/93
BR1	3	7214	Feb. 10, 1989	Feb. 10/95
BR2	3	7215	Feb. 10, 1989	Feb. 10/95
DR 1	4	7220	Feb. 10, 1989	Feb. 10/93
DR 2	5	7221	Feb. 10, 1989	Feb. 10/93
VR1	20	6191	May 25, 1987	May 25/94
VR2	20	6192	May 25, 1987	May 25/94
VR5	16	6195	May 25, 1987	May 25/93
Tarn 1	20	7504	April 7, 1989	April 7/93
Tarn 2	20	7505	April 7, 1989	April 7/93
Tarn 3	20	7506	April 7, 1989	April 7/93

* These dates do not reflect assessment work carried out during the 1990 program, which when filed will extend the current expiry dates for most claims.

PROPERTY AND GENERAL AREA HISTORY

The following is a chronological summary of the work completed on the present day Treaty Creek Project as compiled from available reports.

1929-1930 Prospectors Williams and Knipple were reported to have discovered gold and arsenic mineralization from two unknown locations in the area now covered by the TR claims. Consolidated Mining and Smelting Co. visited the 57 claim property, took samples but did not continue the option on the claims.

- 1953 Prospecters Williams and Knipple found a small silver bearing sulphide vein. In addition, several large float boulders containing tetrahedrite were found in the Treaty glacier; no source was located.
- 1966-1967 In an attempt to promote interest in the Portland Canal-Iskut area of B.C., the government Department of Mines carried out a regional mapping program. The government geologists reported discontinuous lead zinc veins on the present day property. A magnetic anomaly was also discovered at the junction of the Treaty Creek and South Treaty glaciers.
- 1967-1980 The claims were staked several times but were allowed to lapse with no recorded work.
- 1980-1981 E & B Explorations optioned the claims from E. Kruchkowski and carried out a regional prospecting and geological mapping program. No significant mineral occurrences were discovered.
- 1984 Teuton Resources Corp. acquired the claims and carried out a small program of prospecting and stream sediment sampling. One sample of a mineralized boulder returned a value of 5800 ppb Au. A silt sample taken at the junction of the Treaty Creek and South Treaty Glaciers contained 510 ppb Au.
- 1985 Further mapping, prospecting and a heavy mineral stream sediment survey was carried out by Teuton Resources. One heavy metal silt sample from the western portion of the property returned a value of 4200 ppb Au. Native sulphur mineralization was discovered in a pyritic alteration zone.
- 1986 Teuton carried out further rock geochemistry sampling which returned values as high as 925 and 990 ppb Au from the area southeast of the 1985 anomalous stream sample.
- 1987 Teuton continued exploration with more rock and silt sampling. Rock samples as high as 28.0 oz/t gold over 1.2 m enabled the company to expand to a detailed rock sampling, hand trenching and a 184.5 m drill program. Inclement weather limited the effectiveness of the detailed work and the program was prematurely shut down.
- 1988 Teuton followed up the successful 1987 program with blasting, trenching and sampling of the known mineralized zones. A grid was placed over the main area of interest

on which a magnetometer survey and geological mapping were conducted. Several reconnaissance rock and soil lines were put in to test areas southwest, northeast and east of the main area of interest.

OreQuest Consultants carried out field surveys on the Treaty Creek Project with main focus of work on the Konkin the nunatak Zone and area in general. Reconnaissance work of mapping, prospecting, soil, stream sediment, and rock sampling was done mainly on the Treaty Gossan area. Detailed trenching, chip sampling, VLF-EM and magnetic surveys and diamond drilling were completed on the Konkin Zone. Additional work on the nunatak area consisted of rappel traverses over the Goat Trail and Southwest Zones to acquire continuous chip samples. Α Phase II program was implemented in late September with additional drilling on the Konkin Zone and 2 holes on the Goat Trail Zone. Drill program was shut down prematurely due to severe winter conditions.

A brief summary of activity on surrounding properties is included here:

The Treaty Creek Project lies within an historically active mining and exploration area that extends some 225 kilometres from Stewart in the south to near Telegraph Creek in the north. Within this area, which has been referred to as the Stikine Arch, mining activity goes back to the turn of the century. Due to the size of the region it historically has been referred to as more specific areas, ranging from the Stewart area to Sulphurets, Iskut River and Galore Creek, however all of these individual camps appear to be related to the Stikine Arch as a whole. Recent discoveries appear to be filling in areas between these known mineralized camps. It is probable that the entire area can be considered as one large mineralized province with attendant subareas. The location of several deposits and mineral



LEGEND FOR FIGURE 3

PROPERTY OWNER AND/OR NAME	MINERAL RESERVES AND/OR ELEMENTS
Westmin Resources Ltd./Silbak Premier Mines Westmin Resources Ltd./Tournigan Mining	6,100,000 tons 0.064 oz/t Au, 2.39 oz/t Ag
Explorations Ltd.	1,860,000 tons 0.09 oz/t Au, 0.67 oz/ton Ag
Noranda (Todd Creek Project)	Au
Scottie Gold Mine	Au
Granduc	10,890,000 tons 1.79% Cu
Echo Bay Mines/Magna Ventures/Silver Princess	
Resources (Doc Project)	470,000 tons 0.27 oz/ton Au, 1.31 oz/ton Ag
Western Canadian Mining (Kerr Project)	Cu, Au
Exponential Holdings Ltd. (Gold Wedge)	337,768 tonnes 25.78 g/tonne Au, 36.65 g/tonne Ag
Newhawk/Lacana/Granduc (Sulphurets Project -	
West Zone)	550,000 tons 0.42 oz/t Au, 18.0 oz/ton Ag
Prime/Stikine Resources Ltd.	
(Eskay Creek Project)	1,992,000 tons 1.47 oz/t Au, 55.77 oz/t Ag
Consolidated Silver Standard Mines Ltd.	
(E & L Deposit)	3,200,000 tons 0.80% N1, 0.60% Cu
Inel Resources Ltd.	Au, Ag, Cu, Pb, Zn
Skyline Gold Corporation (Jonnny Mountain)	740,000 tons 0.52 oz/ton Au, 1.0 oz/ton Ag
Kestrel Resources Ltd.	Au, Ag, Lu, Po, Zn
Rector Resources Inc. (Golden Spray Vein)	AU, Ag
lungto Resources corp.	AU, AB, CU, PD, 2π
Winslow Cominee/Prime (Spin Deposit)	AU, Ag, CU, PD, 2Π
Persold Resource Corp	
Meridor Resources 1td	
Prime/American Ore Itd /Golden Band	Δu
Magenta Development Corp /Crest	AU
Resources Ltd.	All Ap Cu Ph
Ticker Tape Resources Ltd. (King Vein)	Au
Pezgold Resource Corp.	Au
Consolidated Sea-Gold Corp.	Au
Gulf International Minerals Ltd.	
(Northwest Zone)	Au, Ag, Cu
Kerr Claims	Ag, Cu, Au
Pezgold Resource Corp. (Cuba Zone)	Ag, Pb, Zn
Pezgold Resource Corp. (Ken Zone)	Cu, Au
Avondale Resources Inc. (Forrest Project)	Au, Ag, Cu
Pass Lake Resources Ltd. (Trek Project)	Cu, Au
Galore Creek	125,000,000 tons 1.06% Cu, 0.397 g/t Au. 7.94 g/t Ag
Continental Gold Corp.	Au, Ag, Cu
Bellex Resources Ltd./Sarabat Resources Ltd.	
(Jack Wilson Project)	Au, Cu
Pass Lake Resources Ltd. (JD Project)	Αυ, Cu
Lac Minerals (Hankin Peak Project)	Au
Schaft Creek	910,000,000 tons 0.30% Cu, 0.020% Mo, 0.113
	g/t Au, 0.992 g/t Ag
Paydirt	200,000 tons 0.120 oz/ton Au
Bond International Gold (Red Mountain)	Au, Ag
Eurus/Thios (Rock & Roll)	Ag, Pb, Zn, Cu, Au
westmin Resources Ltd. (SB)	308,000 of 0.505 oz/ton Au, 1.07 oz/ton Ag
	<pre>Westmin Resources Ltd./Silbak Premier Mines Westmin Resources Ltd./Tournigan Mining Explorations Ltd. Noranda (Todd Creek Project) Scottie Gold Mine Granduc Echo Bay Mines/Magna Ventures/Silver Princess Resources (Doc Project) Western Canadian Mining (Kerr Project) Exponential Holdings Ltd. (Gold Wedge) Newhawk/Lacana/Granduc (Sulphurets Project - West Zone) Prime/Stikine Resources Ltd. (Eskay Creek Project) Consolidated Silver Standard Mines Ltd. (E & L Deposit) Inel Resources Ltd. Skyline Gold Corporation (Johnny Mountain) Kestrel Resources Ltd. Hector Resources Ltd. Kyline Gold Corporation (Johnny Mountain) Kestrel Resources Ltd. Prime/American Ore Ltd./Golden Band Magenta Development Corp./Crest Resources Ltd. Ticker Tape Resources Ltd. (King Vein) Pezgold Resource Corp. Gulf International Minerals Ltd. (Northwest Zone) Kerr Claims Pezgold Resource Str. (Forrest Project) Pass Lake Resources Ltd. (Trek Project) Galore Creek Continental Gold Corp. Bellex Resources Ltd. (JD Project) Lac Minerals (Hankin Peak Project) Lac Minerals (Hankin Peak Project) Lac Minerals (Hankin Peak Project) Set Schaft Creek Paydirt Bond International Gold (Red Mountain) Eurus/Thios (Rock & Roll) Westmin Resources Ltd. (SB) </pre>

occurrences appears in Figure 3, which also locates the Treaty Creek Project with respect to these sites. This list of mineral occurrences is by no means comprehensive but is included to illustrate distribution in the region.

The Treaty Creek Project is located on the northern flank of the Iskut-Sulphurets area which has seen extensive exploration in the last three years. The Iskut area originally attracted interest at the turn of the century when prospectors, returning south from the Yukon goldfields searched for placer gold and staked bedrock gossans. In the 1970s the porphyry copper boom drew exploration into the area. The new era of gold exploration began with the 1979 option of the Sulphurets claim block by Esso Minerals Canada and the 1980 acquisition of the Mount Johnny claims by Skyline Explorations Ltd. Skyline (now Skyline Gold Corporation) commissioned its mill in July, 1988, however production has been suspended temporarily. Cominco Ltd. and Prime Resource Group Inc. are presently preparing the adjacent Snip deposit for production.

Beyond these projects, and except for limited early placer gold recovery from some creeks, the area has had no mineral production history. Since 1979, more than 70 new mineral prospects have been identified, though ground acquisition was relatively slow until the fall of 1987 when the promising results of summer exploration programs became known and the provincial government announced the upcoming release of analytical results from a regional stream sediment survey.

By April 1988, all open ground had been staked. More than 60 companies hold ground in the Iskut-Sulphurets belt but to date only small areas within this 40 x 80 km district have received extensive exploration.

In the Sulphurets Creek camp 8 km south of the Treaty Creek Project, near Brucejack Lake, the vein-hosted West Zone of Newhawk Gold Mines Ltd. / Granduc Mines Ltd. / Corona Corporation is reported to contain a diluted minable reserve of 550,000 tons grading 0.42 oz/ton gold and 18.0 oz/ton silver (The Northern Miner, Vol. 76, #36, Nov. 12, 1990) while the Snowfield Gold Zone and Sulphurets Lake gold zone are bulk tonnage low grade deposits containing 7.7 million tons of 0.075 oz/ton gold and 20 million tons of 0.08 oz/ton gold respectively (GCNL Aug. 24, 1989). Newhawk has recently completed a feasibility study which has indicated that current gold and silver prices preclude production at present. Exponential Holdings Ltd.'s Gold Wedge Property is reported to contain 337,768 tonnes of 25.78 grams/tonne gold and 36.65 grams/tonne silver, partly in the Golden Rocket Vein in a similar setting (GCNL, November 23, 1990). The northern boundary of the Newhawk/Granduc/ Corona ground adjoins the southern claim boundary of the Treaty Creek Project. Also located in this area is Placer Dome Inc.'s Kerr property, a porphyry coppergold occurrence to which they have assigned a geological resource of 138,000,000 tons grading 0.61% copper and 0.01 oz/ton gold (Placer Dome Inc. Annual Report, 1989).

On the Snip property situated 60 km west of the Treaty Creek Project, the Twin Zone, a 3 to 25 ft thick discordant shear vein cuts a thickly bedded sequence of intensely carbonatized feldspathic wackes and siltstones. Twin Zone reserves in all categories have been reported as 1,030,000 tons of 0.88 oz/ton gold (Canadian Mines Handbook, 1990-91). This does not include additional reserves which may be developed outside the Twin Zone when mining begins. Twin Zone mineralization occurs in a banded shear zone comprising alternating bands of massive calcite, heavily disseminated to massive pyrite, crackle quartz and thin bands of biotite-chlorite.

At Skyline's nearby Johnny Mountain Mine, reserves in all categories are estimated at 740,000 tons of 0.52 oz/ton gold and 1.00 oz/ton silver with copper, zinc, and lead (Canadian Mines Handbook, 1990-91). Five major areas of gold-bearing sulphide are known. The most important Stonehouse Zone consists of sulphide-potassium feldspar-quartz vein and stockwork systems which have been only partly explored. The Johnny Mountain Mine has been indefinitely shut down pending an increase in gold prices, definition of remaining mineable reserves and road access.

The most recently discovered and perhaps the most exciting gold mineralization occurs on the Eskay Creek property of Prime Resources Group Inc./Stikine Resources Ltd., located 20 km west of the Treaty Creek Project. Several types and styles of mineralization are present at Eskay Creek, the most significant of which are: a) a gold and

silver-rich assemblage of disseminated to near-massive stibnite and realgar within a carbonaceous mudstone-rhyolite breccia "contact zone"; and, b) stratiform banded base metal sulphide layers with high gold and silver values in the contact zone and in a hanging wall andesite flow and sill complex with intercalated mudstone. The latter type accounts for most of the reserves. This stratigraphy appears to be at or near the contact between the Mt. Dilworth (felsic volcanics) and Salmon River (primarily sediments) Formations.

Numerous Calpine (now Prime)/Stikine news releases have announced results from over 600 drill holes completed from 1988 to the present, the most spectacular of which is hole CA-89-109 which produced 682.2 feet of 0.875 oz/ton gold. Published preliminary reserve calculations done in-house by Prime, based on drilling up to hole CA90-657, indicate probable geological reserves of 1,992,000 tons grading 1.47 oz/ton gold and 55.77 oz/ton silver (Prime Capital Corp. News Release, Sept 14, 1990). The company is currently driving an exploration drift to test the deposit at depth for continuity and to conduct metallurgical testing.

Immediately south of the Eskay deposit, American Fibre Corporation and Silver Butte Resources are in a joint venture on the SIB Project, on ground that hosts the same stratigraphy as the Eskay deposit. Results from recent drilling have returned results of 0.421 oz/ton gold and 30.91 oz/ton silver over 46.9 ft from hole 90-30 (Vancouver Stockwatch, October 10, 1990). Results from the final

1990, 26 hole program included values of 0.13 oz/ton gold over 6.3 ft and 0.13 oz/ton gold over 19 ft both in hole 90-38 (GCNL, November 5, 1990).

Elsewhere in the area Tymar Resources and Akiko-Lori Gold Resources have been drilling on the Lakewater Project which adjoins the Prime/Stikine project to the west. The companies are drilling a 320 m wide gap in the American Fibre/Silver Butte SIB claims within which the favourable Eskay deposit stratigraphy occurs. Results have been encouraging and include the following: 9.8 ft of 1.197 oz/ton gold, 1.7 oz/ton silver, 0.73% lead and 0.72% zinc (LW90-2), 3.3 ft of 0.115 oz/ton gold (LW90-3) and 16.4 ft of 0.042 oz/ton gold (LW90-6), (Vanoouver Stockwatch, October 30, 1990).

REGIONAL GEOLOGY

The area is underlain by the Stewart Complex (Grove 1971, 1986). The Stewart Complex encompasses Late Palaeozoic and Mesozoic rocks, confined by the Coast Plutonic Complex to the west, the Bowser Basin to the east, Alice Arm to the south and the Iskut River to the north. A simplified representation of the regional geology setting after Alldrick (1989) appears in Figure 4.

The oldest units in the Stewart Complex are Upper Triassic epiclastic volcanics, marbles, sandstones and siltstones of the Stuhini Group. These, in turn, are overlain by sedimentary and volcanic rocks of the Upper Triassic to Middle Jurassic Hazelton



Group. In the Unuk River area, the Hazelton Group had been subdivided (Alldrick et al, 1989) into the Lower Jurassic Unuk River, Betty Creek and Mt. Dilworth Formations, and the Middle Jurassic Salmon River Formation. Upper Jurassic sedimentary rocks were identified as the Nass Formation by Grove (Grove, 1986) and included by him in the Hazelton Group. More recently the Salmon River Formation has been correlated with the Spatzizi Group, underlying the Ashman Formation which is the basal unit of the Bowser Group (Alldrick, 1989). Both the Salmon River and Ashman Formations occur in the Middle Jurassic.

The Unuk River Formation was deposited during Upper Triassic to Lower Jurassic times and marks a period of submergence (marine sedimentation) followed by emergence marked by volcaniclastic rocks. These rocks include arkosic and lithic wackes, siltstones, conglomerates, tuffites and green and grey intermediate to mafic volcanics.

Unuk River rocks outcrop along a broad north northwesterly trending belt from Alice Arm to the Iskut River.

Subsequent to deposition of the Unuk River Formation, a period of erosion and deformation occurred followed by deposition of the Betty Creek Formation volcanics and marine sediments. Betty Creek rocks are characterized by red and green volcaniclastic agglomerates with intercalated andesitic flows, pillow lavas, chert and minor carbonate lenses.

The Mt. Dilworth Formation was deposited during a period of explosive felsic volcanic activity. Massive to bedded airfall tuffs and welded ash flow tuff characterize this formation.

The Salmon River Formation comprises thin bedded, alternating siltstones and mudstones with minor limestone. The overlying Ashman Formation is characterized by turbidites and wackes with lesser intraformational conglomerates and marked by a basal chert pebble conglomerate.

EXPLORATION PROGRAM

The 1990 exploration program initially focused on the Treaty Gossan area, with limited reconnaissance mapping and prospecting carried out over areas not covered by the 1989 program or which warranted additional work. During this reconnaissance work the new showings on the GR2 claim were located and followed up with the work described herein. (Figure 5)

A grid baseline was established across the centre of the GR-2 claim showings trending 190° for a distance of 800 m. Cross lines were spaced at either 50 or 100 m intervals extending east and west of the baseline past the zone or to the limits of traversable topography. Areas with significant outcrop exposure have a 50 m line spacing while large expanses of snow and ice or talus cover have a 100 m line spacing. The terrain in the area of the showings is steep with lots of loose talus, snow and ice cover. The grid was used as control



for detailed geological mapping, hand trenching, rock chip sampling and a UTEM survey.

A total of 5.225 km of grid was established which includes the 0.8 km of baseline. The UTEM survey was completed on selected lines, those being the ones that were traversable. A total of 3.1 line km of UTEM were completed before the onset of inclement weather. One hundred thirty rock samples were collected of which 67 were grab samples, 31 chip samples over untrenched outcrops and 32 chip samples from the trenches. Chip samples were taken over variable widths but average 1-2 m.

The exploration program on the Treaty Gossan, consisted of grid establishment, detailed geological mapping, prospecting, geochemical rock and soil sampling and magnetic and electromagnetic geophysical surveys.

All the surveys except prospecting were confined to the grid area. The grid was established at the northeastern edge of the gossan area with the baseline trending 225° for a distance of 2.5 km. Crosslines were located at 100 m intervals with lines to the northwest and southeast extended to the limits of traversable topography. All lines are a combination of picketed and flagged stations. Pickets were erected at 50 m intervals with flagging marking the intermediate stations resulting in a 25 m station spacing. A total of 18.975 line km of grid was established with magnetic and electromagnetic surveys each totalling 14.075 line km.

Other areas of the property which received limited exploration included the area southeast of the Treaty Gossan to attempt to trace the Mt. Dilworth Formation and areas north and east of the GR-2 showings.

GR-2 SHOWINGS - GEOLOGY AND MINERALIZATION

The new showings were discovered during reconnaissance mapping and prospecting on the GR-2 claim. Float samples of massive galena were found which were then traced back to the source. The initial prospecting and preliminary mapping was done at a scale of 1:1,000 for each showing then integrated onto four maps as shown on Figures 6, 6a, 7 and 7a.

The area is located near the head of Atkins Glacier on a ridge that separates Atkins Glacier from the main Treaty Glacier. Elevations range from 1450 m on the east side of Atkins Glacier to almost 2000 m at the top of the ridge. Ice and talus cover much of the area limiting outcrop exposures and making access difficult.

The major showings represent portions of shear zones hosted by rocks of the Betty Creek Formation, consisting of interbedded andesitic volcaniclastics ranging from breccia to siltstone with minor

tuffs. The shears generally have a north to north-northeast strike over widths of up to 50 m. Hydrothermal alteration forming sericite, quartz, clays, calcite, pyrite and barite has partially or completely replaced the shear zones.

Zone A

This showing covers an area of about 30 x 30 m which is mostly talus with a few tiny outcrops. Numerous boulders with pyrite (up to 20%), limonite (up to 40%), galena (up to 60-70%), chalcopyrite (up to 2-3%), wad and minor azurite-malachite staining are scattered over the area. A trail of heavily mineralized boulders seems to be the surface expression of an underlying shear vein which probably does not exceed 40 cm in width. The presumed strike of the vein is northeast-southwest. The showing appears to represent a series of discrete northeast trending shear veins developed in andesite lapilli tuffs over a width of approximately 20 m. Varying degrees of sericite, quartz, pyrite and calcite alteration are present across the zone.

Samples from Zone A returned the highest gold assays received, 0.170 oz/ton (#34504) and 0.401 oz/ton (#34505), while silver assays from these samples are 5.30 oz/ton and 4.90 oz/ton respectively. Base metals values are also anomalous with up to 1.65% copper (#34509), 28.6% lead (#34504), and 37.4% zinc (#34507). All of the previously mentioned results were from float samples.





Zone B (Mama Susu)

Numerous boulders with up to 60-70% galena, 10% stibnite, 2-3% chalcopyrite, minor pyrite, wad, limonite and traces of malachiteazurite and sphalerite occur over a talus covered area of approximately 50 m by 20 m. The zone appears to be a 20 m wide shear zone developed in andesitic pyroclastics, a substantial portion of which have been almost totally replaced by sericite and quartz. This zone can be considered to be the northeast extension of the mineralization encountered in Zone A.

Results from Zone B were similar with gold and silver assays of 0.207 oz/ton and 100 oz/ton (#34706) and 0.142 oz/ton and 83.1 oz/ton (#34513) respectively. These were both float samples of massive sulphide material. Results from outcrop include 0.045 oz/ton gold and 8.25 oz/ton silver (#34705) and 0.078 oz/ton gold and 6.91 oz/ton silver (#34514). Base metal assays were not as high as those from Zone A but nonetheless are significant. Sample #34706 contained the highest copper (0.78%), lead (20.7%) and zinc (1.06%). Other values of significance are lead 10.9% (#34513) and 3.99% (#34514).

Zone C (Big Pella)

As in Zones A and B the area is extensively talus covered and likely represents a shear zone striking northeast-southwest, developed in andesite pyroclastics and siltstones. It is 10-15 m wide and can be traced for approximately 50 m. The zone is almost completely sericitized and locally silicified with up to 10% disseminated pyrite

and pockets of up to 90% massive stibnite, 30% galena, and 50% pyrite. Some boulders indicate that nearby exposures of quartz cemented breccia constitute part of the zone.

Zone C analyses were the lowest of all of the zones. Gold values ranged from a low of 0.004 oz/ton to a high of 0.016 oz/ton from sample #34515. Silver values were higher, ranging from 1.14 oz/ton to a high of 11.7 oz/ton (#34516). The base metal content was low, returning only two anomalous lead values, from samples #34516 (1.55%) and #34515 (1.27%). Sample #34515 is possibly in place while #34516 is float material.

Zone C-1

Zone C-1, believed to be an extension of Zone C, is located 300 m to the south-southwest. The zone consists of several quartz veins up to 50 cm wide carrying galena, minor chalcopyrite and abundant manganese stain. The veins are hosted by pyroclastics and sediments of the Betty Creek Formation and strike north to northeast. Several grab samples collected from the zone assayed anomalous gold values up to 370 ppb (#34726). Silver assays returned higher values of 8.99 oz/ton (#34711), 9.44 oz/ton (#34726), 12.64 oz/ton (#34724) and 27.4 oz/ton (#34707).

Showings D, E, F

These showings are all located in a small drainage from an icefield, and are separated from each other by less intensely altered




(sericite - calcite - chlorite - limonite) sequences of andesitic pyroclastics and siltstones 70 to 100 m wide. They consist of shear zones 30, 20 and 50 m wide respectively, all striking northeastsouthwest. All are very strongly to completely altered to sericite with auxiliary quartz and disseminated pyrite (up to 5%). Locally they contain pockets of massive sulphide with galena (up to 30%), pyrite (up to 50%), limonite (up to 50%), sphalerite (up to 10%) and minor stibnite, wad and malachite-azurite staining.

The massive sulphide bodies constitute irregular pods with no apparent prevalent attitude. Diameters up to 130 cm were observed (trench #3) but many of the pods are only partially uncovered by trenches, so their full extent remains to be determined. The sulphide bodies include galena, pyrite and stibnite (constituting up to 50% of the pod) with lesser amounts of sphalerite, chalcopyrite and arsenopyrite. In places these minerals are totally oxidized to limonite, manganese-oxides and malachite-azurite. The bulk of the mineralization occurs in strongly fractured to brecciated zones, which occur more frequently in the siltstone unit. The mechanism controlling emplacement of these sulphide bodies is not yet known however it is possible that faults cross cutting the major shear zones acted as ground preparation for ore bearing solutions.

The presence of stibnite as well as very well defined colloform textures (R. Kirkham -personal communication) point to an epithermal origin of the mineralization, although part may have originated in a

much higher temperature regime as indicated by the very coarse grained textures of some of the sulphides.

Copper and zinc values ranged from 0.01% to 0.2%, and 0.01% to 0.39% respectively. Significant lead assays include the following: 6.50% (#34707), 9.47% (#34728), 11.96% (#34726) and 16.30% (#34724). All of the above samples are grab samples of outcrop or subcrop.

Zone D samples referred to herein include grab samples only. The trench sampling will be discussed in detail in the following section. Gold assays were generally low, with a high of 0.010 oz/ton (#34556). Silver was similarly low with the exception of sample #34523 which assayed 12.9 oz/ton. Base metals ranged from 0.01% to 0.73% copper, 0.04% to 2.86% lead, and 0.07% to 3.73% zinc. All the highest base metal assays were derived from sample #34523 with the gold high from #34556, and the silver high from #34523. All of the above samples were collected from subcrop.

Gold assays from Zone E were quite low, ranging from below detection limits to 0.006 oz/ton (#34525). Silver was also low though 3 samples assayed >2 oz/ton including 20.4 oz/ton from sample #34526. Copper ranged from 97 ppm to a high of 0.10% (#34526), lead from 352 ppm to 3.31% (#34526) and zinc from 81 ppm to 0.34% (#34524). Samples #34524 and #34525 are float material, #34526 was in place. The UTEM survey shows a weak conductor associated with this showing which trends southwest under the icefield.

Zone F received the bulk of the detailed work. Gold and silver results from this zone were low, ranging from 20 to a high of 550 ppb gold (#46017) and only two significant silver assays of 11.18 oz/ton (#46014) and 53.53 oz/ton (#46017) were received. Base metal results were lower than expected except for select grabs such as 42.70% lead (#46017) and 9.16% lead (#34531). Copper was low except for sample #46017 which assayed 6058 ppm. Zinc returned three strongly anomalous values of 5.16% (#46017), 6.72% (#34530) and 8.29% (#34531) respectively.

This zone is contained within the main UTEM anomaly as interpreted by S. Visser in his report (Appendix I). It is described as either a number of closely spaced weak conductors or a wide conductive zone. Anomalous values in gold (0.01 oz/ton), silver (13.13 oz/ton), copper (1436 ppm), lead (0.26%) and zinc (0.2%) have been returned from rock samples along this UTEM conductor trend northeast of Zone F. Abundant north to northeast shearing is evident in the limited outcrop in this area.

TRENCHING AND SAMPLING

The favourable results received from the numerous grab samples collected at the various showings prompted a trenching and chip sampling program. The initial program consisted of hand clearing of talus material over the most promising areas (Zone F) followed by systematic chip sampling. Sampling was carried out generally at 2 m intervals with 1 m chips over sections with significant visual mineralization.

The trenching program included some of the same areas that were chip sampled. This was done to allow a comparison of the results obtained from surface material vs. blasted material to see if assays varied due to either surficial enrichment or leaching of mineralization. Trenching was carried out by Tim Carlson Blasting Co. of Courtnay, B.C. and chip sampling of the trenches was done by OreQuest.

A total of 5 chip lines were completed; lines A-D on Zone F, and Line E over Zone E, Figures 7, 7a, and 8, followed by 8 trenches which were drilled, blasted, excavated, and chip sampled. Trenches are labelled 1-4 on Zone F, 5 and 6 on Zone D and 7 and 8 on Zone C (Figures 9 to 13).

Lithologies encountered in the trenches are the same as on surface, consisting of andesitic pyroclastics and siltstone, strongly to completely sericitized with local development of silicification, pyritization and clay alteration. Alteration in trenches 7 and 8 (both Zone C) is dominated by clays.

Both chip lines A and B were completed over the same approximate area as covered by Trench 1. The exact correlation is not known as trenching removed the markers for the chip lines.



from previous chip samples in the area provided the location for the trench. Six chip samples for a total length of 12.2 m were collected from the trench with the highest results from sample #34836 which contained 100 ppb gold, 16.6 oz/ton silver, 1388 ppm copper, 7.73% lead and 3.87% zinc over 2.0 m.

The sample contains 1.7 m of a 2.3 m long andesitic pyroclastic/ siltstone hosted breccia zone cemented by 3-5% galena, 1-2% sphalerite, 1-2% pyrite, limonite and quartz. The remaining 0.6 m of the breccia zone is contained in sample #34835 which assayed 2.98 oz/ton silver and 12192 ppm lead. All of the samples from this trench contain assays significantly above background levels.

Trench #2

This trench, located on Zone F, has a total length of 6 m over which 4 samples were collected (Figure 10). It is underlain by intercalated andesite pyroclastics and siltstone. Alteration includes sericite, silica, limonite and manganese with pyrite, sphalerite, galena, and malachite stain. The trench was designed to trace rich mineralization which outcrops 5 m to 7 m to the southwest. Sample #34840, a 1 m chip of intensely sericitized and silicified andesitic pyroclastics contained the highest gold (400 ppb), silver (9.32 oz/ton), copper (1168 ppm), lead (7.70%) and zinc (9276 ppm). Excluding this sample other assays include gold (below detection limit - 30 ppb), silver 26-37 ppm), copper (104-117 ppm), lead (2723-6427 ppm) and zinc (2385-2980 ppm).





Trench #5

This trench, 4 m long, is located on Showing D, and is underlain by andesite pyroclastics which have been completely altered to sericite and clays. Measurements of small shears and foliations indicate a northeast strike which is conformable with the larger scale shearing in the area. Trenches 5 and 6 were intended to trace the mineralization encountered in grab samples which contained gold values up to 0.010 oz/ton, silver to 12.9 oz/ton, copper from 0.01% to 0.173%, lead from 0.04% to 2.86% and zinc 0.07% to 3.73%. Two samples were collected, the results of which were quite low with gold (0.006 oz/ton), silver (1.37 oz/ton), copper (0.02%), lead (0.21%) and zinc (0.08%), all from sample #34560, a 2 m chip (Figure 11).

Trench #6

This trench, 10 m long, also located on Showing D, is underlain by andesite pyroclastics and siltstone which are partially replaced by sericite, quartz, pyrite and limonite. A small interval of brecciated rock containing tiny quartz crystals hosts minor pyrite, galena and sphalerite. The best result from the 5 samples collected from this brecciated unit was sample #34564 which assayed <0.005 oz/ton gold, 36 ppm silver, 0.01% copper, 0.58% lead and 0.45% zinc over a 2.0 m chip (Figure 11).

Trench #7

This trench, 6.5 m long, over Showing C, exposed andesite pyroclastics with variable amounts of sericite, guartz and clay



alteration (Figure 12). Two trenches, 7 and 8, were excavated over this zone, prompted by anomalous gold results up to 0.016 oz/ton gold and silver from 1.14 oz/ton to 11.7 oz/ton from float and grab samples collected earlier in the program. Additional factors affecting the location of the trenches on this showing were very strong alteration and the presence of boulders (in subcrop) containing 50-60% stibnite. Results of the 3 samples were low however with the highest gold (20 ppb) and zinc (50 ppm) from sample #34566, a 2 m chip. The highest silver (10.7 ppm) and lead (1335 ppm) were from sample #34568, and the highest copper (24 ppm) from sample #34567. Antimony results were low with a maximum of 240 ppm however arsenic was strongly anomalous with over 2000 ppm in #34566. All the above samples are 2 m chips.

Trench #8

This trench, 18 m long, across Showing C, is underlain by andesite pyroclastics with variable sericite, clay, limonite and manganese alteration (Figure 13). Results of the seven samples from this trench were low with gold below detection limits in all of the 7 samples collected. The highest copper (145 ppm) and zinc (1545 ppm) sample #34574, silver (161 ppm) and lead (1801 ppm), sample #34575 were from adjoining 2 m samples of intensely sericitized and limonitic andesite pyroclastics.

The program was successful in outlining areas of significant mineralization, mostly lead and silver with local elevated gold, copper and zinc values. Exact relationships between the showings is





still unclear however they are all related to a series of northnortheast trending shear zones, of variable widths, with apparently discontinuous high grade vein mineralization. Zones of brecciation evident in some of the trenches are considered to be the result of explosive hydrothermal action and fragments of bedded vein quartz containing epithermal sulphide assemblages have been noted within the breccias (R. Kirkham, pers. comm.). Additional trenching will be required to further examine these zones.

PROSPECTING TARGETS

VR2 and TR7 Claims

Areas to the north (northern portions of GR2 and VR2 claims -Figure 14) and to the east (southern portion of TR7 claim - Figure 15) of the newly discovered showings were briefly prospected. They were found to be underlain by andesite pyroclastics and sediments of the Betty Creek Formation and felsic volcanics of the Mt. Dilworth Formation respectively. Locally the rocks are strongly sericitized, silicified and calcitized in zones up to 100 m across with mineralization consisting predominantly of disseminated pyrite, locally up to 20%. In the northern portion of GR2 and VR2 claims boulders with galena and abundant manganese staining (ie. similar mineralization as in the new showings) were found. Several samples of these boulders were assayed returning up to 3.17 oz/ton silver and 50 ppb gold. Grab and float samples collected in the south portion of TR7 did not record significant gold or silver values.





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East Side of Treaty Gossan

Several grab samples collected from outside the grid area in the southeast part of the Treaty Gossan returned anomalous gold values associated with arsenic (Figure 16). The highest result of 0.054 oz/ton gold (#46003) came from a small northeast trending shear zone containing 15-20% disseminated pyrite. The shear zone is hosted by heavily silicified, gossanous rhyolite (or rhyolite tuff) containing 3% disseminated pyrite, and local pods of up to 20% pyrite. The rhyolite (or rhyolite tuff) is exposed as a body several metres wide and 50-60 m long within an area of extensive talus.

TREATY GOSSAN GEOLOGY AND DISCUSSION

Geological mapping at a scale of 1:2500 was completed over half of the grid only due to the earlier than expected onset of winter conditions. The report therefore concerns primarily the mapped portion of the grid, although general conclusions concerning the Treaty Gossan area are based on experience from previous exploration seasons.

Lithology

The mapped area is underlain by rocks of the Hazelton Group represented by north-south trending Betty Creek and Mt. Dilworth Formations. Rocks of the former formation consist of massive to poorly bedded andesitic pyroclastics to epiclastics and well bedded siltstone and argillite. These volcano-sedimentary rocks are accompanied by massive to vesicular andesitic flows. Andesite

pyroclastics contain a variety of fragments including massive and scoriaceous fragments, glass and crystals. A substantial part of the area mapped is occupied by an equigranular diorite intrusive.

The felsic volcanic sequence of the Mt. Dilworth Formation comprises rhyolitic to dacitic airfall tuffs and flows which are extensively altered to chlorite, sericite and clays.

Rocks of these formations host the Treaty Gossan alteration zone which is a pervasively pyrite-quartz-sericite altered rock with massive to schistose structure. Many boulders of a laminated chertlike rock carrying alunite, native sulphur, prehnite and selenite were also found in the area. They are concentrated just south of lines 10W to 13W, where a small outcrop (1x2 m) of this lithology was found.

Mineralization

Mineralization encountered during the mapping and prospecting of the area is associated with three distinct episodes related to extrusive rocks of the Mt. Dilworth Formation; a porphyry copper type alteration system; and subsequently, local epithermal overprinting. These stages, partially superimposed on each other, represent different styles of mineralization, alteration and potential for gold occurrence.



1) Mineralization related to the Mt. Dilworth Formation.

The oldest of the stages is associated with the felsic extrusive rocks of the Mt. Dilworth Formation which in part hosts the nearby Eskay Creek deposit. These were mapped on the north-east portion of the grid (lines 0 to 5W, and outside the grid in the south-east portion of the Treaty Gossan (Figure 16). Samples derived from the former location did not record anomalous gold values.

Some of the grab samples collected from the latter location returned anomalous gold values generally associated with elevated arsenic. The highest result, 0.054 oz/t gold (#46003), consisted of a small north-east trending shear zone containing 15-20% disseminated pyrite, within a weakly carbonatized rhyolite. An exposure of gossanous rhyolite located by the G.S.C. near the toe of the Treaty Glacier contained finely laminated pyrite and traces of Sartorite, a lead-arsenic-antimony sulphide, in rocks considered to be Mt. Dilworth.

2) Mineralization Related to a Porphyry-Copper System.

The Treaty Gossan alteration zone together with surrounding areas bears several features characteristic of porphyry-copper type systems.

The Treaty Gossan alteration zone encompasses about 1 square kilometre, a magnitude observed in many porphyry-copper systems. The zone is surrounded by an extensive alteration halo of weak to moderate intensity, affecting all andesitic rocks of the Betty Creek Formation

and diorite intrusives. The alteration features chlorite, calcite, zeolites, pyrite (limonite), sericite and epidote with the first two being dominant. This assemblage fits the pattern of alteration zoning for a porphyry-copper system put forward by Lowell & Gilbert (1970) and Sillitoe (1973) with the pyrite-quartz-sericite alteration zone equivalent to the phyllic zone and the surrounding zone equivalent to the propylitic alteration in this model.

One of the features of the Treaty Gossan area is a magnetic anomaly detected a 1989 Aerodat airborne geophysical survey, to the south and east. Nothing on the ground was found to justify this anomaly, however it can be explained by assuming a porphyry-copper model for the Treaty Gossan area. According to Lowell & Gilbert (1970) deep parts of the propylitic alteration zone in porphyrycopper systems feature the presence of substantial amounts of magnetite replacing pyrite. These magnetite-rich portions of the system could result in a circular magnetic anomaly located peripheral to parts of the system (similar to that of Treaty Gossan), provided the concentration of magnetite is sufficient to cause an airborne anomaly. In his world wide review of gold-rich porphyry copper deposits, R.H. Sillitoe (1979) listed the high magnetite content as a primary feature of deposits of this type, able to generate magnetic responses up to 4500 gammas above background. He even suggested the use of ground and airborne magnetic surveys as an effective means of locating such deposits.

The bulk of the sulphide mineralization so far associated with the Treaty Gossan occurs in what would be the sericitic (phyllic) alteration zone, as disseminated pyrite making up 3-7% of the rock by volume. Numerous rock samples representing this zone collected during this and previous exploration seasons returned at best weakly anomalous values in gold. Significantly, the samples also showed weakly anomalous values in copper which suggests that it may represent the upper portion of a porphyry-copper system, and more precisely, the upper part of its phyllic zone, which usually carries little copper (or associated gold) mineralization. Many of the samples collected from the surrounding propylitic alteration zone returned anomalous values in gold with numerous results over 100 ppb, the 2 highest results being 340 ppb (rock grab sample) and 290 ppb (soil).

In a porphyry-copper model, the propylitic zone may contain a few small gold-silver bearing galena-sphalerite-chalcopyrite veins. Some small veins of this type were located on the Treaty Gossan, all in the propylitic zone. One such vein found by OreQuest in 1989 carrying galena and chrysocolla assayed 0.038 oz/ton gold and 2.55 oz/ton silver.

3) Mineralization associated with an epithermal system.

Over the area of the Treaty Gossan numerous boulders and one small outcrop (located south of line 10W) of siliceous laminated rock containing alunite, native sulphur, prehnite and selenite were found. In thin section the rock was found to be composed of very fine grained (chert) quartz, alunite and disseminated pyrite comprising 1-3 mm thick laminations. The layers often show soft sediment type deformation such as small scale slump folds and pull-apart structures. The rock probably represents the precipitate (sinter) from a hot springs in a marine environment.

Native sulphur, prehnite, selenite and some alunite were subsequently introduced to the rock along small crosscutting fractures. These fractures were eventually sealed off by silica which explains the excellent condition in which the native sulphur is preserved.

Samples of this rock showed anomalous levels of mercury (Dani Alldrick-personal comm.) and a warm spring was reportedly located in the south-east part of Treaty Gossan by Chris Hrkac in 1985. All these facts suggest that the area is underlain by an active epithermal system. It is crucial however, to explain the relationship between this epithermal system and the Treaty Gossan alteration zone.

None of the low temperature minerals accompanying laminated silica sinter were found in the pyrite-quartz-sericite altered rock, which suggests that they constitute two separate systems. The epithermal system was superimposed on the porphyry-copper system, when the latter was eroded to the present level (according to estimates by R. H. Sillitoe this would occur after removing 2 to 3 kilometres of overlying rocks). One area where the epithermal system is likely in

place is under the glacier situated to the south of lines 9W to 13W, which is characterized by scattered silica sinter boulders at the edge of the icefield, and also by a small outcrop of this lithology (Figure 17). Other areas are likely to be located on the unmapped portions of the grid and outside of the grid area.

The epithermal system is not restricted, however, to the Treaty Gossan. Laminated and vein hosted sulphides with native sulphur were reported in place on the north side of the Treaty Glacier on the TR-6 claim by geologists of the Geological Survey of Canada from Ottawa, headed by Rod Kirkham. This occurrence is in felsic volcanics (rhyolite?) probably belonging to the the Mt. Dilworth Formation. A boulder of laminated silica sinter was also found on the so called Ridge Zone (north-west corner of TR-8) by Jim Chapman in 1989. The few float samples of silica sinter collected on Treaty Gossan in 1990 did not record significant gold results however this is not surprising since "silver, arsenic, gold, mercury, antimony and thallium values occur sporadically within the sinter", (B.R. Berger, 1985).

An indirect confirmation that the epithermal system contains gold can be found in the substantial seil gold anomaly detected on lines 13W to 16W. Most of the soil samples collected from these lines returned gold values ranging from 50 to 270 ppb. The most likely explanation of this anomaly is that gold is being transported from its source under the ice by west to north-west flowing streams causing the west northwest trending anomaly observed.

TREATY GOSSAN-GEOCHEMISTRY

A geochemical rock and soil sampling program was carried out concurrently with the geological mapping and prospecting surveys. Rock samples of representative sulphide mineralization, were collected during the course of mapping and prospecting in areas of interest, or areas of strong alteration. Soil samples were collected at both 50 m and 25 m spacing with the western half of the grid sampled at a 25 m spacing as this is the area of the most intense gossan. Selected portions of the grid were not sampled due to obviously thick glacial moraine which occurs as prominent ridges.

Rock Geochemistry

Results of the rock sampling program for gold were generally low which was not unexpected given that samples obtained in previous years by various operators have returned similar assays. Values ranged from below detection limits to a high of 340 ppb from sample #34721, a 2 m wide chip across well foliated chlorite-quartz schist within a fault zone.

One area of elevated gold results is located at the south ends of Lines 9W to 13W which corresponds to the area underlain by the laminated chert-like rock (sinter) and pyrite-sericite-quartz altered volcanics containing pods of massive pyrite. Values range from below detection limits to 190 ppb with most in the 30-60 ppb range.

Results for base metals and possible indicator elements revealed one anomaly corresponding to the area underlain by the laminated rock and the pyrite-sericite-quartz altered rock. Results in this area yielded anomalies in molybdenum, arsenic, zinc, silver and in particular lead and antimony. These include molybdenum - 34 ppm, arsenic - 89 ppm, zinc - 448 ppm, silver - 1.64 oz/ton, antimony - 662 ppm and lead - 3863 ppm. The highs for silver, arsenic, antimony and lead are all from sample #34579, a float sample of strongly silicified pyrite-sericite altered rock containing 20-30% massive pyrite. Samples #34579 to #34583, all within a 100 m x 100 m area contained elevated silver, 1.0 - >50 ppm, antimony, 41-622 ppm and lead, 174-3863 ppm. These samples are all either in place or likely derived from under the nearby glacier, the float samples are believed to be close to their source.

Elevated values are found sporadically throughout the grid and include: sample #34720 - 280 ppb gold and 82 ppm arsenic; #34721 - 340 ppb gold, 68 ppm arsenic, 1383 ppb lead, and 2112 ppm zinc; and, #34723 (float sample) 200 ppb gold, 2182 ppm lead, and 1777 ppm zinc.

Soil Geochemistry

In addition to gold, elements selected as significant potential indicators include the following: copper, silver, lead, zinc, arsenic and antimony. As no mapping was completed west of L13W on the grid, correlation of soil anomalies with geology is difficult and if

mentioned is based on information from previous mapping or prospecting programs on the Treaty Gossan area.

Gold in soils revealed two distinctly anomalous areas within the grid. These are LOW through L3W and L13W through L24W. The easternmost anomaly contains values up to 290 ppb along a west northwest trend up to 200 m wide and 600 m long, open at both ends due to moraine and/or ice cover. This anomaly appears to crosscut the trend of the Mt. Dilworth-Betty Creek contact at approximately right angles and shows some correlation with two of the EM conductors defined by the geophysical survey.

The westernmost anomaly can be divided into two portions, a coherent west northwest trending zone from L13W through L16W, and a more erratic area between L18W and L24W with local spot highs. As discussed previously the anomaly on lines 13W through 16W likely represents in part downslope dispersion from a source off the grid to the east overprinting the smaller anomalies evident between lines 18W and 24W. This portion of the grid was not mapped during the 1990 program so no sources for the anomaly are known at this point. A maximum value of 255 ppb gold was received from this area.

Copper occurs mostly as spot highs on the western half of the grid. Values range between 100 and a high of 147 ppm at L20W; 1+75N. On the east side of the grid area a broad, weak anomaly extends from 1+00S to 2+50N over L4W to L6W, values here are in the 80-110 ppm

range. This anomaly crosscuts stratigraphy and may in part be caused by moraine debris though it is coincident with silver, zinc and antimony values.

Lead occurs as small scattered anomalies from L0 to L9W with highs to 163 ppm. A distinct east-west trending zone of \geq 100 ppm extends from L15W, near the glacier in the area of the chert-like laminated rock (sinter) and the quartz-sericite-pyrite enriched rock, to the east end of L11W. This zone is from 100 to 300 m wide and persists for approximately 600 m with both ends obscured by talus or ice. The higher values are virtually all on L13W, 0+50S to 1+00S with a high of 297 ppm. Outwash streams from the small icefields on the peaks have likely spread the anomaly out from a source somewhere under the glacier as it shows a trend similar to the gold anomaly. Anomalous lead values to 3863 ppm were obtained from rock samples at the edge of the ice proximal to this soil anomaly. One elevated value of 211 ppm lead within the zone was found at the north end of the grid, L15W, 4+50N. No mapping is available to explain this high which is some distance from the suspected source area of lead values. Antimony and arsenic anomalies are found proximal to the lead zone.

In summary the soil geochemical survey has outlined several broad and significant anomalies in gold, silver, copper, lead, zinc, arsenic and antimony, of which gold, silver, copper and lead are shown on Figure 17.



Copper and zinc correlate well with the areas of the grid underlain by (or believed to be underlain by) rocks of the Betty Creek Formation. This includes mostly andesite and andesite pyroclastics with some areas of siltstone and argillite. A diorite lens mapped out over the northwest portions of L6W to 12W is an exception to the mafic rocks - elevated copper-zinc assays, but the diorite is extensively altered (carbonate, sericite) which may have leached some of the metals.

Lead shows a strong correlation with the main pyrite-quartzsericite alteration zone, particularly in areas of increased pyrite content near the chert-like laminated rock. It appears to be a good indicator for this type of mineralization which is likely related to an epithermal-type system. Lead is also elevated over the mafic rocks particularly on the east side of the grid but values in this area are much lower (50 ppm vs. 100 ppm) than those seen over the main alteration zone.

Arsenic correlates with the exposures of Mt. Dilworth Formation rocks at the northeast end of the grid and also shows a strong correlation with the contact between the diorite lens and andesite on L5W to L9W. An isolated area of elevated arsenic occurs on L16W. No mapping was done in this area to determine the source but given the dispersion trend it likely represents a small restricted zone.

Antimony correlates well with the copper and zinc anomalies on the east side of the grid but not on the west side. As both areas are believed to be underlain by andesites of the Betty Creek Formation it is not known why antimony is only coincident with copper and zinc in the one area. Antimony is also present sporadically within the pyrite-quartz-sericite alteration zone and shows some usefulness in helping to define the limits of this large alteration zone.

Silver shows a restricted anomalous pattern with only two zones evident. Along with lead and gold it outlines the same anomalous area from L12W through L16W which is postulated to be caused by an epithermal source under the ice to the northeast. Between L5W and L9W three spot highs at the edges of the grid area again show a strong correlation with lead values overlying both diorites and the pyritequartz-sericite alteration zone.

TREATY GOSSAN GEOPHYSICS

Ground geophysical surveys were performed over most of the Treaty Gossan grid utilizing the Scintrex IGS-2 instrument with readings taken at 12.5 m intervals along lines spaced 100 m apart. Coverage is complete on L0 to L21W, on L22W from BL to 2+37.5S with no surveys completed on L23W to L25W. The work included magnetic and VLF-EM electromagnetic surveys, utilizing the Hawaii (23.4 kHz) transmitting station. The last few lines were not surveyed due to time constrains caused by the shut down of the Hawaii station. Magnetic Survey

The magnetic survey did not reveal any broad or distinct trends nor does it appear to be that useful in determining lithologic contacts. The small anomaly at the northwest end of L2W to L5W cannot be explained by anything observed during the mapping program. The lows on L5W from 0+00 to 2+00S are in an area of talus and moraine debris masking any possible source for the anomalies. The only other area of significant anomalies, which consists of alternating highs and lows, lies within the diorite lens near the northwest end of L8W to L11W. Nothing was evident during the mapping program to explain these trends.

VLF-EM Survey

The VLF-EM survey revealed mainly spot conductors associated with either lithologic contacts or glacial features such as moraine ridges.

Three weak, two line conductors have been delineated by the survey which show no obvious topographic source and may indicate some weak structural features. Two of these conductors occur from L3W to L5W between the baseline and 1+50N. These appear to crosscut stratigraphy and show no strong correlation with the geochemistry in this area. A third weak conductor trends north across lines 14W and 13W at 3 and 4N respectively. This anomaly also cross cuts both the apparant stratigraphy and the trend of the geochemical anomalies in this area. The mapping program did not extend this far, however additional information may be available when this is completed.

The airborne survey flown in 1989 showed a similarly flat response over this portion of the property with only weak single station anomalies recorded.

BUDGET ESTIMATE

Mob/Demob \$ 18,000 Labour: Project Manager (1) 14 days @ \$550/day \$ 7,700 Project Geologist (1) 35 days @ \$450/day 15,750 Geologist (2) 50 days @ \$360/day 36,000 Geophysicist (1) 20 days @ \$400/day 8,000 Field Assistants (4) 54,000 <u>50</u> days @ \$270/day 355 days Subtotal \$121,450 Camp Support 355 days @ \$150/day \$ 53,250 drillers 60 days @ \$125/day 7,500 Helicopter 57,500 Geophysics IP 10 km @ \$1500/km 15,000 UTEM 10 km @ 1000/km 10,000 Analyses 12,500 Trenching 10 days @ \$500/day 5,000 Report 25,000 Drilling 1250 m @ \$150/m 187,500 SSubtotal \$512,700 GST @ 7% 35,890 Contingency @ 10% 54,860 Subtotal \$603,450 Management Fee (@ 16%, GST incl) 96,550 TOTAL BUDGET ESTIMATE \$700,000

STATEMENT OF QUALIFICATIONS

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

- I am a graduate of the University of British Columbia (1976) and hold a BSc. degree in geology.
- 2. I am presently employed as a consulting geologist with OreQuest Consultants Ltd. of 306-595 Howe Street, Vancouver, British Columbia.
- 3. I have been employed in my profession by various mining companies since graduation.
- 4. I am a Professional Geologist with the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- 5. I am a Fellow of the Geological Association of Canada.
- 6. The information contained in this report was obtained from a review of data listed in the bibliography, numerous visits to the property in 1989 and 1990, and knowledge of the area.
- 7. I have no interest, direct or indirect in the securities of Tantalus Resources Ltd.
- 8. I consent to and authorize the use of the attached report and my name in the Company's Prospectus, Statement of Material Facts or other public document.

Jim Chapman, F.G.A.C. Consulting Geologist

DATED at Vancouver, British Columbia, January 31, 1991.

STATEMENT OF QUALIFICATIONS

I, Wesley D.T. Raven, #108, 1720 W. 12th Avenue, Vancouver, British Columbia hereby certify:

- 1. I am a graduate of the University of British Columbia (1983) and hold a BSc. degree in geology.
- I am presently retained as a consulting geologist with OreQuest Consultants Ltd. of #306-595 Howe Street, Vancouver, British Columbia.
- I have been employed as an exploration geologist on a full time basis since 1983.
- 4. I am a Fellow of the Geological Association of Canada.
- 5. The information contained in this report was obtained during onsite property exploration supervision personally conducted by myself in 1990.
- I have no interest, direct or indirect, in the property nor in the securities of Tantalus Resources Ltd.
- 7. I consent to and authorize the use of the attached report and my name in the Company's Prospectus, Statement of Material Facts or other public document.

Wesley D.T. Raven, F.G.A.C. Geologist

DATED at Vancouver, British Columbia, January 31, 1991.

STATEMENT OF QUALIFICATIONS

I, Alojzy Aleksander Walus, of 4816 Joyce Street, Vancouver, British Columbia hereby certify:

- I am a graduate of the University of Wroclaw (Poland) and hold a MSc. degree in geology.
- I have three years experience as an exploration geologist in Poland.
- 3. In 1988 and 1989 I worked in British Columbia as a geologist with several exploration companies.
- 4. During the 1990 summer exploration season I was employed as a field geologist with OreQuest Consultants Ltd. of #306-595 Howe Street, Vancouver, British Columbia.
- 5. All information contained in this report was obtained during 1990 exploration program.
- I have no interest, direct or indirect, in the property nor in the securities of Tantalus Resources Ltd.
- 6. I consent to and authorize the use of the attached report and my name in the Company's Prospectus, Statement of Material Facts or other public document.

Alojzy Aleksander Walus, M.Sc.

DATED at Vancouver, British Columbia, January 31, 1991.
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APPENDIX I

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UTEM SURVEY ON GR-2 CLAIM

UTEM SURVEY

ON

GR 2 CLAIM TREATY CREEK PROJECT

FOR

TANTALUS RESOURCES LTD

BY

SJ GEOPHYSICS LTD. AND LAMONTAGNE GEOPHYSICS LTD.

SKEENA, M.D., B.C. N.T.S. 104 B/9E

DECEMBER 1990 Syd J. Visser SJ GEOPHYSICS LTD.

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INTRODUCTION

A UTEM survey was conducted on the, Tantalus Resources Ltd., Treaty Creek project, by SJ Geophysics Ltd. and Lamontagne Geophysics Ltd., at the request of Prime Explorations Ltd. and Orequest Consultants, during the later part of September, 1990. The survey grid is located on GR 2 claim which is approximately 80 kilometres north-northwest of Stewart, in the Unik River area of northern B.C. (N.T.S. 104B/9E).

The purpose of the UTEM survey was to search for massive sulfides or conductive (mineralized) shear or fault zones which may contain gold. The survey was conducted partially over a glacier and in topographically difficult terrain.

DESCRIPTION OF UTEM SYSTEM

UTEM is an acronym for "University of Toronto ElectroMagnetometer". The system was developed by Dr. Y. Lamontagne (1975) while he was a graduate student of that University.

The field procedure consists of first laying out a large loop, which can vary in size from less than 100M X 100M to more than 2Km X 2Km, of single strand insulated wire and energizing it with current from a transmitter which is powered by a 2.2 kW motor generator. Survey lines are generally oriented perpendicular to one side of the loop and surveying can be performed both inside and outside the loop.

The transmitter loop is energized with a precise triangular current waveform at a carefully controlled frequency (30.97 Hz for this survey). The receiver system includes a sensor coil and backpack portable receiver module which has a digital recording facility on cassette magnetic tape. The time synchronization between transmitter and receiver is achieved through quartz crystal clocks in both units which must be accurate to about one second in 50 years.

The receiver sensor coil measures the vertical or horizontal magnetic component of the electromagnetic field and responds to its time derivative. Since the transmitter current waveform is triangular, the receiver coil will sense a perfect square wave in the absence of geologic conductors. Deviations from a perfect square wave are caused by electrical conductors which may be geologic or cultural in origin. The receiver stacks any pre-set number of cycles in order to increase the signal to noise ratio.

The UTEM receiver gathers and records 10 channels of data at each station. The higher number channels (7-8-9-10) correspond to short time or high frequency while the lower number channels (1-2-3) correspond to long time or low frequency. Therefore, poor or weak conductors will respond on channels 10, 9, 8, 7 and 6. Progressively better conductors will give responses on progressively lower number channels as well. For example, massive, highly conducting sulfides or graphite will produce a response on all ten channels.

It was mentioned above that the UTEM receiver records data digitally on a cassette. This tape is played back into a computer at the base camp. The computer processes the data and controls the plotting on an 11" x 17" graphics printer. Data are portrayed on data sections as profiles of each of the first nine or ten channels, one section for each survey line.

FIELD WORK AND DISCUSSION OF FIELD PARAMETERS

Syd Visser (chief geophysicist), Andrew Rybaltowski (Geophysicist) and Neil Visser (helper), all with SJ Geophysics Ltd., and the equipment were mobilized from Calpine camp for each day of the survey by helicopter. Because of weather conditions at this time of the year, at these elevations, it was deemed to risky to leave the equipment in the field during the night. The field survey parameters and local geology were discussed in the field with Mr. Wes Raven, project geologist with Orequest Consultants, before commencing the survey and during the survey period. Mr. Raven also aided in the field survey.

Approximately 2 Km, using a station spacing of 25M and 12.5M, were surveyed from 1 loops in a period of 3 production days (Sept 8, 9 and 12). Several attempts, during the remainder of the season, were made to extend the survey and one production day was lost due to snow and wind. It was not possible to retrieve the loop. Because most of the pickets were lost on the ice the majority of the lines were located with topofil and compass during the survey. The slope was taken at each station and the approximate horizontal distance calculated later by computer.

Because of the unequally spaced station on most of the lines the UTEM sections may be mislabeled and therefore the location should be correlated to the grid on the location map. The location of the survey loop and approximate location of the survey lines are shown on the enclosed figure G1. The purpose of using a close station spacing in the search for deeper conductors is to better locate and separate the short wavelength near surface conductors from the deeper long wavelength conductors.

DATA PRESENTATION

The results of the 1990 UTEM survey are presented on 10 data sections representing 5 lines of data (Appendix III) and one UTEM compilation map (Figure G1, Scale 1:5,000).

Legends for the UTEM data sections are also attached (Appendix II).

In order to reduce the field data, the theoretical primary field of the loop must be computed at each station. The normalization of the data is a follows:

a) For Channel 1:

% Ch.1 anomaly = $\underline{Ch.1 - PC}$ X 100 /PT/

Where:

PC is the calculated primary field in the direction of the component from the loop at the occupied station

Ch.1 is the observed amplitude of Channel 1

PT is the calculated total field

b) For remaining channels (n = 2 to 9)

Ch.n anomaly = (Ch.n - Ch.1) X 100

Ni

where Ch.n is the observed amplitude of Channel n (2 to 9)

N = Ch.1 for Ch1 normalized

N = PT for primary field normalized

- i is the data station for continuous normalized
 (each reading normalized by different primary
 field)
- i is the station below the arrow on the data sections for point normalized (each reading normalized by the same primary field)

Subtracting channel 1 from the remaining channels eliminates the topographic errors from all the data except ch.1.

If there is a response in channel 1 from a conductor then this value must be added to do a proper conductivity determination from the decay curves. Therefore channel 1 should not be subtracted indiscriminately.

The data from each line is plotted on at least 2 separate sections consisting of a continues normalized section to which interpretation was added and a point normalized section. Additional point normalized data sections were produced where more than one conductor is present on the same line. Point normalization data is the absolute secondary field at a "gain setting" related to the normalization point. The data is usually point normalize over the central part of the crossover anomaly to aid in interpretation.



DISCUSSION

The UTEM survey on the Treaty Creek project indicated a number of weak anomalies or conductive zones as indicated on the compilation map figure G1. The majority of the survey lines (300S, 200S, 150S and part of 100S) were established on the ice during the survey, since most of the original pickets had slid down the ice, therefore the lines as shown on the location map may not be accurately located.

The best anomaly, on the small survey area, is the conductive zone striking across the west end of lines 300S, 200S, 150S and possibly 100S. This anomaly appears to be a number of closely spaced weak (less than 1 mho) conductors or a wide conductive zone with the best conductivities on lines 300S and 150S. This conductive zone does not appear to extend north of 100S although the data on line 50S is very noisy due to extreme wind conditions during the survey. There appears to be a weak conductor on the extreme west end of line 200S but there is not sufficient data to confirm this.

A second very weak conductor or conductive zone strikes across the grid, close to the base line, from line 300S to line 50S. This conductor or conductive zone is possibly a very weak conductor such as a conductive fault, shear zone or a change in conductivity of the rocks. The very similar response seen on line 500S near the base line may be part of the same structure or conductor.

Both of these conductive zones further warrant investigation by trenching or drilling

Syd Visser F.G.A.C. Geophysicist

Geophysics LTD.

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, Syd J. Visser, of 11762 94th Avenue, Delta, British Columbia, hereby certify that,

- I am a graduate from the University of British Columbia, 1981, where I obtained a B.Sc. (Hon.) Degree in Geology and Geophysics.
- 2) I am a graduate from Haileybury School of Mines, 1971.
- 3) I have been engaged in mining exploration since 1968.
- 4) I am a Fellow of the Geological Association of Canada.

Syd J./Visser, B.Sc., F.G.A.C. Geophysicist

APPENDIX II

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UTEM SYSTEM MEAN DELAY TIME			
Channel Number	Delay Time (msec)	<u>Symbol</u>	
1	12.8		
2	6.4	\mathbf{i}	
3	3.2		
4	1.6	\vdash	
5	0.8	\rightarrow	
6	0.4	9	
7	0.2	\sim	
8	0.1	$\widehat{\wedge}$	
9	0.05	$\overline{\diamond}$	
10	0.025	·	
Base Frequency = 31 Hz			

...

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APPENDIX III

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CONDUCTED BY SJ GEOPHYSICS LTD, JOB 9003 BASE FREQ (HZ) 30,97 LOOP NO 100 LINE 500 S COMPONENT HZ SECONDARY FIELD CH1 CONTIN. NORM.



CONDUCTED BY SJ GEOPHYSICS LTD. JOB 9003 BASE FREQ (HZ) 30.97 LOOP NO 100 LINE 500 S COMPONENT HZ SECONDARY FIELD CH1 POINT NORM.



CONDUCTED BY SJ GEOPHYSICS LTD. JOB 9003 BASE FREQ (HZ) 30.97 LOOP NO 100 LINE 300 S COMPONENT HZ SECONDARY FIELD CH1 CONTIN. NORM.



CONDUCTED BY SJ GEOPHYSICS LTD. JOB 9003 BASE FRED (HZ) 30.97 LOOP NO 100 LINE 300 S COMPONENT HZ SECONDARY FIELD CH1 POINT NORM.



CONDUCTED BY SJ GEOPHYSICS LTD. JOB 9003 BASE FREQ (HZ) 30.97 LOOP NO 100 LINE 200 S COMPONENT HZ SECONDARY FIELD CH1 CONTIN. NORM.



CONDUCTED BY SJ GEOPHYSICS LTD. JOB 9003 BASE FREQ (HZ) 30.97 LOOP NO 100 LINE 200 S COMPONENT HZ SECONDARY FIELD CH1 POINT NORM.



CONDUCTED BY SJ GEOPHYSICS LTD. JOB 9003 BASE FREQ (HZ) 30.97 LOOP NO 100 LINE 150 S COMPONENT HZ SECONDARY FIELD CH1 CONTIN. NORM.



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CONDUCTED BY SJ GEOPHYSICS LTD, JOB 9003 BASE FREQ (HZ) 30,97 LOOP NO 100 LINE 150 S COMPONENT HZ SECONDARY FIELD CH1 POINT NORM.



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CONDUCTED BY SJ GEOPHYSICS LTD. JOB 9003 BASE FREQ (HZ) 30.97 LOOP NO 100 LINE 100 S COMPONENT HZ SECONDARY FIELD CH1 CONTIN, NORM.



UTEM SURVEY AT TANTALUS FOR PRIME EXPLORATIONS LTD. CONDUCTED BY SJ GEOPHYSICS LTD. JOB 9003 BASE FREQ (HZ) 30.97 LOOP NO 100 LINE 100 S COMPONENT HZ SECONDARY FIELD CH1 POINT NORM.



UTEM SURVEY AT TANTALUS FOR PRIME EXPLORATIONS LTD. CONDUCTED BY SJ GEOPHYSICS LTD. JOB 9003 BASE FREQ (HZ) 30.97 LOOP NO 100 LINE 50 S COMPONENT HZ SECONDARY FIELD CH1 CONTIN. NORM.

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UTEM SURVEY AT TANTALUS FOR PRIME EXPLORATIONS LTD. CONDUCTED BY SJ GEOPHYSICS LTD. JOB 9003 BASE FREQ (HZ) 30.97 LOOP NO 100 LINE 50 S COMPONENT HZ SECONDARY FIELD CH1 POINT NORM.