HECENELASSESSMENT REPORT

DEC U 8 1997

Gold Commissioner's Office VANCOUVER, B.C. on the

GHOSTPASS GROUP

(GP1-8 & Master Ace 1 & 2 Claims) (Reduced to 57 Units)

Sowaqua Creek Area Latitude 49°17'/Longitude 121°08' NTS 92H/6E New Westminster Mining Division

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Prepared by

September 15, 199

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SUMMARY

- The Shearer-Cardinal-Heino joint venture located the GP 1-8 and Master Ace I & II mineral claims in 1996 to cover previously known gold-silver showings and newly discovered Ghostpass Zone gold occurrence.
- 2) The Ghostpass gold occurrence is situated along the Southeasterly extension of the Coquihalla Gold Belt.
- The claims are located 42 road kilometres southeast of the town of Hope.
 Access is via the Coquihalla Highway to the Sowaqua Exit. The claims are 21 km south along the Sowaqua Forestry Road from the highway.
- 4) The East Hozameen Fault is related to a number of gold occurrences over a length of 100 kilometres from the International border north to Boston Bar.
- 5) To the west, the Master Ace claims are underlain by serpentinite lenses and Permian to Jurassic Hozameen Group, a deformed ophiolitic complex of altered chert, argillite and mafic volcanics.
- 6) To the east, the GP 1-8 claims are underlain by altered volcanics of the Early Triassic Spider Peak Formation and Jurassic Ladner Group greywackes, siltstone and conglomerate.
- 7) Anomalous gold and arsenic values in soils suggest that a bedrock source is presently obscured by overburden in the main Ghostpass Area.
- 8) The Master Ace and Newjay Zones are characterized by quartz filled, major shear zones with gold values up to 0.26 oz/ton Au and 5.52 oz/ton Ag.
- 9) The property is at an early stage of evaluation. A program of basic prospecting, geological mapping and trenching is recommended at a cost of \$126.469.00.

espectful J. T. Shearer, M.Sc., P.Geo.

D. G. Cardinal, P.Geo.

D. A. Heino

September 15, 1997

INTRODUCTION

The Coquihalla Gold Belt is a well defined geological trend extending 100 km in length from the 49th Parallel northwesterly to Boston Bar where the Gold Belt is truncated by the younger Fraser Fault System. It is likely that the Coquihalla Gold Belt was at one time continuous to the north on the west side of the Fraser with the Bralorne-Bridge River Gold Belt. Although no property is currently in production the former producers include:

• L	adner Creek Project (Carolin) Idaho Mine .	1,354.0 kg Au (42,000 oz Au)
♦ E	Emancipation	
• P	ipestem	8.5 kg Au
• V	Vard	
• A	lurum	16.5 kg Au

The Coquihalla Gold Belt is defined by the Hozameen Fault and associated ultramatic zone. Most of the many gold showings are hosted by Triassic Spider Peak Formation volcanics (Ray, 1990) or Lower Jurassic Ladner Group turbidities. Gold zones are known in a variety of geological environments from albite-quartz disseminated zones to quartz veins associated with felsic porphyritic dykes. The known gold zones are typically structurally complex.

During the late 1996 and early 1997 field seasons, reconnaissance geological and geochemical surveys were conducted on the Ghostpass Property. The work outlined anomalous gold-silver zones associated with fault-shear structures. A crew of three conducted the work which included line cutting, gridline surveys, soil sampling and bedrock mapping.

The property is situated in a rugged region of the northern Cascade Mountains approximately 19 km southeast of Hope, B.C. During the 1920's prospectors explored the area and located a major shear zone carrying anomalous amounts of gold, silver and gold tellurides.



LOCATION and ACCESS

The GP Mineral Claims are located some 42 road kilometres from the town of Hope, British Columbia. The first 20 km is via the Coquihalla Highway (No. 5), a 4-lane major highway which parallels the Coquihalla River valley corridor, leading to the interior of B.C. (Figure 1 and 2).

Near 20 km, where the Sowaqua Creek empties into the Coquihalla River, a highway off-ramp connects with a forestry service - logging road. The road is a well maintained, radio controlled active logging road. It follows the Sowaqua Creek valley southeasterly to its headwaters. The road intersects the north boundary of the GP claims near the 21 km sign and becomes part of the Ghostpass Mainline branch road.

The Ghostpass Mainline provides excellent access to the GP #1 claim where majority of the geological, prospecting and soil sampling surveys were conducted. It is about a 40 minute drive from Hope to the project site.

The Sowaqua Creek, a tributary of the Coquihalla River, bisects the Hozameen Range which forms part of the northern Cascade Mountains in southwestern B.C. The creek follows the path of a former alpine glacier, which has left behind a number of hanging valleys and glacial till terraces. Its drainage system originates near the Ghostpass Lake area, fed by several small mountain streams and lakes.

The GP and Master Ace claims cover rugged mountainous terrain along the eastern flank of Mount Outram and the low-lying areas of Ghostpass and Sowaqua creeks. The elevation on the claims rages from 1500m along Ghostpass Creek to 2100m along the western boundary of the Master Ace.

Climatically, the Sowaqua Creek valley is influenced more by coastal weather patterns. Generally receiving mild, warm summers with rainy seasons beginning late September. At lower elevations, the valleys can expect 6-7 months of snow-free conditions.



LIST of CLAIMS

The Ghostpass Property consists of 57 contiguous units, covering some 2,500 acres. The claims are currently owned by three individuals, J. T. Shearer, D. A. Heino and D. Cardinal as listed in Table I.

The property lies within the New Westminster Mining Division at Latitude 49°17' and Longitude 121°08' in N.T.S. map sheet 92H/6E, figure 3.

TABLE I						
List of Claims Claim Tenure Original Reduced Reduced Date Located Current						
Name	Number	Size	Number	Size	Date Located	Anniversary Date *
GP1	350363	5N3W	15	no reduction	Sept. 9/96	Sept. 9, 1999
GP2	350364	5N2E	5	5N1E	Sept. 9/96	Sept. 9, 1999
GP3	350365	6S3E	5	1W3S	Sept. 9/96	Sept. 9, 1999
GP4	350366	3S3W	3	5S1E	Sept. 9/96	Sept. 9, 1999
GP5	351627	2 post	1	2 post	Sept. 27/96	Sept. 27, 1999
GP6	351628	2 post	1	2 post	Sept. 27/96	Sept. 27, 1999
GP7	355313	3S6W	9	3S3W	April 23/97	Apr. 23, 2000
GP8	355314	3S3E	3	1E3S	April 23/97	Apr. 23, 2000
Masterace 1	350361	4W5N	15	5N3W	Sept. 9/96	Sept. 9, 1999
Masterace2	350362	3S4W	6	2S3W	Sept. 9/96	Sept. 9, 1999
		Total	57 units			

* with application of assessment work documented in this report.

Subsequent to staking, the original claims were reduced pursuant to the Regulations of the Mineral Act. Mineral title is acquired in British Columbia via the Mineral Act and regulations which require approved assessment work to be filed each year in the amount of \$100 per unit per year for the first three years and then \$200 per unit per year thereafter to keep the claim in good standing.



FIELD PROCEDURES

For reconnaissance surveys and orientation work a 1:50,000 topographic map was used. For more detail work such as mapping and geochemical soil purposes, a 1:5,000 scale topographic map was utilized, supplied by Prettys' timber Co. Ltd. This map was most useful because of the detail logging access roads, cut block areas and topography.

A detail grid was layed out over the Ghostpass Zone project site. This consisted of establishing a baseline grid 1 kilometre in length roughly parallel to the overall trend of the bedrock, with crosslines established at 100m intervals for soil sampling purposes. A hip chain and compass were used to survey in the gridline.

For mapping purposes, the 1:5,000 scale map gave excellent control for surveys outside the grid area and all outcrops could easily be tied in. Soil sampling was concentrated over the grid with samples taken at 50m interval stations along crosslines. Each station was identified by numbered flagging. Soils were collected from the 'B' horizon where possible and stored in standard kraft sample bags. Any soils collected outside the grid area were controlled by topographic contours using an altimeter and tied-in to logging roads.

The limited gold panning conducted along the Ghostpass and Sowaqua creeks was conducted using a portal pack sack metal sluice. The heavys collected in the sluice were screened and panned for colours. Prospecting and reconnaissance surveys were also carried out along the creeks and along road sections where recently constructed logging roads cut through bedrock.

EXPLORATION HISTORY

Following the rediscovery and location of the old Master Ace gold showings, the ground was staked and subsequently acquired by Carlac Minerals Inc., a private, non-reporting company. In the early 1920's prospector/mine engineer, the late E. C. Rice and his associates from Coalmont, B.C., discovered gold on the ground now known as the Master Ace I and II. Between 1920-40, Rice and his group continued to explore and prospect the entire length of the Master Ace zone with a series of trenches, pits and short adits.

In 1932, Mining Engineer, P. B. Freeland in his report to the B.C. Minister of Mines stated his findings on the property, as follows:

"Along the southwest granite veins, another quartz vein, varying from 2 to 6 feet in width containing pyrite, arsenopyrite, and chalcopyrite is traceable for several miles. Many samples were taken from the outcrop of these veins over 5 foot widths and the results varied from a trace in gold and silver to Gold, 0.26 oz/ton; Silver, 5.52 oz/ton. Picked samples assayed as high as \$14.00 in gold per ton."

In the late 1940's an independent mining consultant, W. S. Ford, also examined the property and in a private letter/report concludes:

"From what the writer could observe over the length of the claims, more work should prove a large tonnage operation."

During his visit to the property, Ford observed quartz veins containing chalcopyrite, copper carbonate and some float carrying visible gold and silver tellurides. Other vein systems were also observed to carry "ribboned" or "banded" arsenopyrite in quartz. He also noted that sperrylite (arsenide of platinum) was believed to have been detected in some of the specimens.

During the 1986 field season Newjay Resources conducted systematic geological, geochemical and geophysical surveys on the property. The compiled field data shows the property to host several interesting gold, silver, copper and arsenic anomalies.

The Master Ace claims were relocated in 1996 and a number of Ghostpass claims were staked immediately to the east to cover interesting gold geochemical results. The Ghostpass claims cover the southward extension of the Coquihalla Gold Belt which hosts numerous gold deposits-showings such as Idaho-McMaster disseminated gold, Emancipation quartz vein, the Monument gold vein and the Pipestem breccia zone.

Between 1995 and 1996 over 3 million dollars were spent on advanced exploration on the Ladner Creek Gold Mine (Idaho-McMaster) with reserves as follows (Shearer, et. al., 1997):

- Idaho Underground...... 1,788,000 tonnes at 4.40 g/tonne
- McMaster Underground 240,000 tonnes at 4.42 g/tonne
- McMaster Surface (open pit) 186,000 tonnes at 1.89 g/tonne

A major exploration program has recently been completed on the Canam-AM Breccia zone by Imperial Metals near the south end of the Coquihalla Gold Belt, 10 km south of the Ghostpass Claims. The AM Breccia is a Au-Cu breccia pipe related to Tertiary intrusives and structures.



REGIONAL GEOLOGY

Regionally, the geological setting is characterized by a prominent structural linear feature known as the Hozameen Fault. The fault is represented by a semi-continuous band of serpentinized-ultramafic referred to as the Coquihalla Serpentine Belt. The serpentine belt, which is fault bounded by the East and West Hozameen Faults, separates two distinct crustal units (Ray, 1990) (Figure 4 &5).

The crustal unit of east of the serpentine (East Hozameen Fault) is composed of altered volcanics of the Early Triassic Spider peak Formation, which form an unconformable basement to the overlying turbidite successor basin groups; the Jurassic Ladner Group, Upper Jurassic Dewdney Creek Group and the Lower Cretaceous Jackass Mountain Group.

To the west of the serpentine belt (West Hozameen Fault) is the Permian to Jurassic Hozameen Group, a deformed ophiolitic complex, which is mainly represented by cherty argillites and volcanics.

The East Hozameen Fault is spatially related to a number of gold occurrences and former producers (e.g. Carolin Mines, Pipestem and the Emancipation), which are primarily hosted in the basal (siltstone-wacke) Ladner Group. This gold camp parallels the East Hozameen Fault for some 20 km along northwesterly trend, between the Coquihalla River and Siwash Creek.

The mineralized zones consist of stockwork veins, sheeted vein zones and cymoidally distorted, en echelon vein sets, and pervasively disseminated sulfide-rich albite-quartz systems. Ore grade widths of up to 30m. have been defined in the Idaho No. 1 Zone.

The GP claim group, which is located in the Ghostpass Lake area, cover the southeastern extensions of the Hozameen Fault system and Coquihalla Serpentine-Gold Belt.



GHOSTPASS ZONE

Detailed Geology and Mineralization

During the late fall of 1996, reconnaissance soil sampling and prospecting surveys outlined an anomalous gold and arsenic zone (Ghostpass zone) along the western portion of the GP #1 mineral claim. Four soil samples collected in the general area returned anomalous values ranging from Au 145ppb to 760ppb and As 130ppm to 9375ppm. As well, structures noted in the area appeared to be related to the Hozameen fault system.

Consequently, the 1997 field exploration efforts were concentrated along the western part of the GP #1 claim in attempt to properly define the Ghostpass zone. A grid was established over the area for geological control and geochemical soil sampling purposes. Mapping surveys were carried out over the grid as well as along sections of the Ghostpass Mainline #1 logging road. Recent clear-cut logging has also helped to expose subsurface structures that otherwise may not have been noticed.

A thick unit of predominately argillite with minor siltstone, wacke and conglomerate which are occasionally intruded by concordant felsite sills, is exposed along sections of the road from Ghostpass Creek going west to the grid area (Figures 6). The argillite unit strikes northwest with beds dipping moderately to the southeast and is characteristically consistent to the Ladner Group rocks. Along the grid area, the argillite appears to occur as a series of localized imbreciated thrust faults as displayed by the surface topographic expressions. The argillite is in structural contact with a band of serpentine, which displays all the characteristic features of the East Hozameen Fault. The serpentine, which is approximately 150 metres wide and trends about 340 degrees, is traceable along the grid area for at least 1.5 kilometres before being lost in dense tree cover and overburden. The band of serpentine represents the southern continuation of Coquihalla Serpentine Belt.

The west side of the serpentine comes in fault contact (West Hozameen Fault) with cherty argillites and greenstones of the Hozameen Group.

The potential of the area to host gold-silver mineralization, as evidenced by the Hozameen Fault and the associated imbreciated faults found in the argillites appears to be very favourable. These structures may play an important role as potential mineralizers (as in the case of the Idaho and McMaster Zones) and are partly believed to be responsible for the anomalous gold and arsenic found in the area. Sub outcroppings of fuchsite-bearing listwanite rocks occur in the grid area which is also an important alteration mineral associated elsewhere in the Coquihalla Gold Belt.

As well, prospecting and limited gold panning conducted along Ghostpass Creek produced fine colours of angular gold. Mineralized float along the creek bed with subangular arsenopyrite quartz-breccia float and listwanite rocks was also noted. This evidence suggests the potential of auriferous-bearing structures occurring nearby possibly along the western side of Ghostpass Creek and the headwaters of Sowaqua Creek.

Mineralized, fine grain, cream colour, felsic sills and concordant with the argillites are exposed along sections of the mainline road. Some of the sills are up to a metre wide and carry finely disseminated cubic pyrite (<2%) with occasional fine arsenopyrite along fractures. Two closely spaced sills exposed along one section of the road, displayed iron staining and gossan-like appearance, were samples. Five chip samples obtained across the oxidized section returned 0.52 to 1.95 gram per tonne gold.



15 5 5 ς SCALE 1: 5000 5 200 100 J. Mart -----**GHOSTPASS GROUP** LEGEND: LADNER GROUP (JURASSIC) Slaty Argillite and minor Wacke 4866 1 **PROPERTY GEOLOGY** 5 HOZA MEEN GROUP (PERMIAN TOJURASSIC) 2 HOZA MEEN GAVY Argillite ٥, **GHOSTPASS CREEK AREA** 1,111,1 COQUINALLA SERPENTINE BELT (GP #1 Claim) -> 3 1 × 22 × 2 × 2 × Serpentinite and minor Talc schist Minerolized My Felsite Sill 5 121 06 55 Rock Outcrop Ċ Shearer - Cardinal - Heino Joint Venture strike/Dip of Bedding 5 58 -PPL AU ASPPH Sonple } Foliation (vertical) **New Westminster Mining Division** 50 meter 10 AV XASIM Soil - Contour Interval 50 X 130 Sample NTS 92H/6E Figure **6** - 1250 -

Geochemical Results

In 1996, two random grab samples (DH 96-18 & 19) collected within the grid area returned significantly high gold and arsenic values of 760ppb Au and 385ppb Au and As 1500ppm and 9375ppm.

In 1997, a grid pattern was established over the area to follow up the 1996 anomalous values. A total of 29 soil samples were taken from the grid and sent to a Min-En labs for gold and arsenic geochemical analysis.

The results were plotted on a 1:5,000 scale map (figure). No attempt was made to conduct a geostatistical analysis, or threshold values. However, based on past experience on geochemical surveys along the Coquihalla Gold Belt, a 40ppb can be considered as a threshold value for gold. Arsenic is characteristically a pathfinder element for gold along the belt and values of 150ppm or greater were also plotted.

Based on the plotted values, a weak geochemical pattern emerges (Ghostpass Zone) and the gold-arsenic geochemical anomalies are coincidental with the geological structures mapped in the area. although the anomalous values are not as high as the values obtained from the two 1996 samples, the gold-arsenic anomalies overlie and reflect the Hozameen Fault system. It is quite possible that the Ghost Zone, however subtle, may potentially reflect a deep seated mineralized system controlled by the fault system.

It should also be noted that soil profile over the grid area contains a substantially thick (>1-2m) impervious clay horizon. Since arsenic is a relatively mobile element, its wider distribution over the grid area reflects its mobility through the clays and supports the potential of a structurally controlled gold-arsenic bearing system at depth.

The fault system requires more work including additional geochemical and geological surveys along strike.



MASTER ACE ZONE

Detailed Geology and Mineralization

The Master Ace Zone is a major fault/shear represented by an irregular belt of serpentinized-ultramafic rock which can be traced on the property for some 3.2 km (2 miles) along strike (Figure 8) and results are included for completeness (Cardinal, 1987). The belt varies in width ranging between 20m (65 ft.) to 100m (330 ft.) wide and strikes northerly with an average dip of 70° to the west. The west contact of the serpentine is faulted up against cherts and cherty argillites, both rock types appear to be mylonitic particularly near and along the fault zone. The fault consists of several paralleling intense, shear zones which is made up of, sub-paralleling quartz veins and serpentine that has been altered to talcose schist. The shear zone, where exposed, is strongly weathered and oxidized with widths of 10m - 20m (30 - 50 ft.). A gabbroic-diorite sill forms part of the ultramafic package and runs the length of the belt.

The east contact of the serpentine is also a fault contact but is not as intense or pronounced as the west. The rocks in contact with the serpentine consist predominantly of cherty volcanics and banded cherts which appear to have undergone less shearing or mylonization than the cherty argillite on the west. Also, no quartz veining or strong alternation was evident along the contact.

The fault/shear zone along the west contact is the primary exploration target that makes up the main Master Ace Zone. This zone, although having very limited bedrock exposure, has a surface trough-like expression and, combined with geophysics and geochem can be traced for at least some 760m (2,500 ft) along strike. The mineralization is hosted in sub-paralleling quartz veins and stringers which are associated with the talcose schist. The sheared quartz veins consistently carry chalcopyrite with malachite-azurite staining and lesser arsenopyrite. Both sulfides are associated with high anomalous gold and silver. Another element identified in the analysis is Bismuth, also hosted in the quartz veins. Bismuth does not appear to be directly related to the chalcopyrite and arsenopyrite but is related to very high anomalous values of gold and associated silver. As a result, the Master Ace shear zone appears to host at least two different types of mineralized assemblages, the chalcopyrite/arsenopyrite assemblage and a bismuth sulfide, with both types being highly anomalous in gold and silver. The talc schists and serpentine within the shear zone characteristically carry disseminated pyrrhotite, chalcopyrite, magnetite and lesser pyrite along with detectable platinum.

Geochemical and Geophysical Surveys

Geochemical and geophysical surveys were conducted over an established grid which has crosslines spaced every 50m (160 ft) and stations at every 20m (65 ft) intervals. The grid on the Master Ace zone is approximately 750m (2,500 ft) long and combined 11 line-kilometres (7 miles) of geophysics and geochem were run.

Soil samples were collected over the grid and analyzed for copper (Cu), arsenic (As), gold (Au), and silver (Ag). Cu-As elements were used as pathfinders for Au-Ag because of their close association and also to aid in outlining the shear zone. Both the copper and arsenic anomalies occur along the length of the grid as relatively long, narrow zones and having identical signatures, probably reflecting the underlying shear zone. The gold and silver geochem values are relatively low - this is believed to be due to thicker overburden masking the shear zone combined with the very low mobility of the Au and Ag elements. In areas where the shear outcrops, particularly north of the L 9 + 00 N, both the Au and Ag are highly anomalous along with Cu and As.



A detail VLF-EM survey was carried out over the grid employing a Sabre model 27 EM unit. All the dip angle readings were filtered using the Fraser Filter Method, plotted and then contoured. The survey outlined a very strong EM conductor having a similar signature and following the same trend as the geochem data. The conductor picked up by the EM survey is interpreted to be the shear zone which host the anomalous gold and silver. The EM anomaly can be traced for some 600m (1,900 ft) and appears to change or swing southeast, south of L 4 + 00 N, and also appears to be open to the north beyond L 9 + 00 N.

Numerous samples were collected over various parts of the shear zone (Figure 9). Some are float material believed to have traveled a very short distance and close to being in-place; others are from sub-outcrop or near surface bedrock and some were obtained from exposed bedrock on a saddle-like ridge near L 9 + 00 N. Majority of the rock samples collected are highly weathered and oxidized and, partly leached as a result, may tent to be lower in gold and silver content.

Between lines L 9 + 00 N and L 10 + 00 N on a ridge, at about elevation 1,980m (6,500 ft) and down steep, precipice face is a well exposed but highly oxidized section of the shear zone discussed above. A number of random rock samples collected from this area have returned values of up to 3,200 part per billion (ppb) Au; 22.0 parts per million (ppm) Ag; and 13,450 ppm Cu. Rock chips collected across 4.5m (15 ft.) to test a portion of the 10m - 12m (30 - 40 ft) wide shear zone assayed 0.12 oz/ton Au and 0.46 oz/ton Ag. Nickel (Ni) and Chromite(Cr) were also anomalous; platinum (Pt) within the detectable range, although low was found to be associated with the Ni and Cr.

Approximately 450m (1,500 ft) south between lines L 6 + 00 N and L 5 + 00 N and along strike with the shear zone are also other highly anomalous gold and silver values. The zone along this southern part is masked by overburden and alpine vegetation as a result, rock samples collected are from mineralized quartz float. The quartz float is believed to have transported for only a very short distance since it occurs adjacent to and over the shear itself. Two float grab samples assayed between 0.102 - 0.352 oz/ton Au and 0.10 - 0.52 oz/ton Ag. Other samples collected are also anomalous in Au, Ag, Cu, Arsenic (As) and including bismuth (Bi).

Thirty (30) shallow percussion holes were drilled using and Atlas Copco portable drill in attempt to get through the oxidized zone and into fresh bedrock and to try to get through the overburden were the shear zone is masked by alpine vegetation and debris. Majority of the shallow (3 - 5m) holes did not cut solid bedrock but in areas where bedrock was intersected, encouraging values of Au, Ag, and Cu were encountered. Two such holes occur near L 5 + 00 N (fig. 5) where vertical sections of 2.4m (8 ft) and 2.7m (9 ft) intersected 0.389 oz/ton Au and 0.59 oz/ton Ag and 0.155 oz/ton Au and 0.21 oz/ton Ag respectively.

Five old trenches were re-opened by hand but only two were managed to be excavated down to bedrock which consisted of rusty talk shears and weathered quartz. three other trenches were dug down to 2.4m (8 ft) without hitting any rock. The trenches are over half a century old and because of their location, along a steep slope following the shear zone, have all filled in by slide material and grown over by alpine vegetation. Machinery such as a bulldozer or backhoe is required to properly excavate the zone which would mean constructing a road into the property.



NEWJAY ZONE

Detailed Geology and Mineralization

The bedrock geology on the Newjay Zone is very similar to the Master Ace zone including the structures and alteration features and is also included in this report for completeness (Cardinal, 1987). Although the zones are at least 1 km apart and separated by a glacial scoured valley, both occur on strike and along the same serpentine-ultramafic fault zone.

The Newjay Zone has very little (<20%) rock exposure and is located within a heavy forested area and masked by overburden (Figure 10). Geologically, the serpentine is bounded on the west by cherty argillites and on the east by greenstone, cherty volcanics and banded chert (fig. 1h). The west contact is the exploration target along which the Newjay zone occurs, associated with intense shearing which, in turn, hosts a bleached and oxidized zone of talk schist and mineralized quartz veins. During mapping survey, at least seven old trenches were found that follow the shear zone along strike for some distance of 100m (300 ft). Because of the steep slopes ($30^\circ - 40^\circ$) all the trenches are caved in and mineralization trenched by the old timers is buried by slide material. Four (4) of the trenches were re-opened and hand dug down to a depth of 2.4m (8 ft); two encountered bedrock exposing decomposed talc schist and heavily mineralized and oxidized quartz veins. The shear zone was partly exposed for about a 3m (10 ft) section hosting 1m (3 ft) wide quartz veins.

The veins are well mineralized carrying, ribbons and bands of arsenopyrite, argentite (silver sulfide) and lesser sulfides of galena, sphalerite and chalcopyrite.

Geochemical and Geophysical Surveys

The soil profile on Newjay Zone is much better developed and the overburden not as thick as a result, gold and silver geochem analyses tend to be higher and more readily detectable. The grid pattern established over the zone for surveying is the same as the Master Ace grid described in the preceding section.

The soil samples collected over the grid were analyzed for Cu, As, Ag and Au, with all four elements showing coincidental anomalies over the shear zone mentioned above. The Ag-Au anomalies (Figure 11) compliment each other and tend to be more confined whereas the Cu-As anomalies show more of a dispersed pattern probably due to their more mobile nature. Each anomaly occurs along the same area reflecting the trend of the shear zone and its direct relationship with the above metals, more importantly with the gold and silver. All four geochem anomalies trend north-south and can be traced at least 500m (1,600 ft) along strike occurring between lines L 1 + 00 S and L 5 + 00 S.

A geophysical, VLF-EM survey conducted over the grid also outlined an EM anomaly coincident with the geochemical surveys. A main conductor extending for some 800m (2,600 ft) was traced within which tree (3) sub-conductors have been identified, striking approximately north-south. At L 6 + 00 S a second strong anomaly was also picked up adjacent to and paralleling the main conductor - anomaly. The geophysical anomaly obviously reflects the shear zone identified in the old trenches and that the zone, in part, is highly anomalous in silver and associated gold along with related base metals (Cu, Pb, Zn, and As), as shown by the geochemical surveys. The EM anomaly is open and appears to continue to the south.



A number of rusty and weathered samples were collected form the old trenches with more of the encouraging results assaying up to 6.41 oz/ton Ag and 0.046 oz/ton Au across 1.2m (4 ft) of mineralized quartz. Samples obtained from decomposed, rusty talc schist had geochemical results as high as 447 ppm Cu, 3,111 ppm As, 4,971 ppm Pb, 451 ppm Zn, 152.3 ppm Ag, and 585 ppb Au across 3m (10 ft). Unfortunately, as mentioned previously, fresh or unweathered samples are difficult to collect because of the relatively thick oxidized zone. It is quite evident that the associated base metals, especially arsenic, is a good pathfinder for the Au and Ag. An from the Geochemical surveys, both As and Cu are strongly anomalous, extending the potential for Ag and/or Au along strike and at depth.



D.G.C. P.Geol. FIGURE 11

CONCLUSIONS and RECOMMENDATIONS

The object of this reconnaissance program was to attempt to outline or define potential anomalous areas on the Ghostpass property. The combined geological and geochemical surveys indicate this area to contain potentially economic values of precious metals.

Geological mapping shows a major north-northwest striking fault zone (Hozameen Fault) occurring at the contact between serpentinite and Ladner Group coarse clastics. The faulted zones several sub-parallel, mineralized felsic dykes that are anomalous in gold and silver. Geochemical anomalies have further defined the fault structure. The Ghostpass area near the Hozameen Fault is presently obscured by overburden. Geochemical surveys also reflected the fault structure as indicated by the anomalous zones. The objective was achieved in that encouraging results were obtained from the surveys and follow up work is planned for the 1998 field season consisting of prospecting, geological mapping, geophysics and trenching.

Respectfully Submitted, J. T. Shearer, M.Sc., P.Geo. D. G. Cardinal, P.Geo.

D. A. Heino

September 15, 1997

COST ESTIMATE for FUTURE WORK

This property requires basic geological mapping, prospecting and geochemical sampling.

Personnel:		
Geologist - Supervisor 50 days at \$350/day		\$17,500.00
Geologist 60 days at \$350/day		\$21,000.00
Prospector/Sampler 75 days at \$250/day		\$18,750.00
Field Assistant 75 days at \$150/day		<u>\$11,250.00</u>
	Subtotal GST	\$68,500.00 \$ 4,795.00
Mobilization:		
Helicopter, Jet Ranger 206, \$850/	hr at 12 hours	\$10,200.00
Truck Rental 75 days @ \$74.32		\$ 5,574.00
Camp:		
Groceries, fuel, field gear (axes, flagging, sample bags,	etc.)	\$ 4,500.00
Field Equipment:		
VLF-EM Rental, 60 days at \$25/da	ay	\$ 1,500.00
Magnetometer Rental		\$ 1,200.00
Trenching 80 hours @ \$130/hr plus mo	ob. & demob.	\$13,400.00
Analysis:		
Assay - Rock (Au, Ag, Cu, As, Pt) 200 samples at \$24/sample		\$ 4,800.00
Geochem - Soil (Au, Ag, Cu, As, Pt 600 Samples at \$15/sample	, Sb)	\$ 9,000.00
Office:		
Report writing, typing, drafting, Xe	rox	<u>\$ 3,000.00</u>
	TOTAL	<u>\$126.469.00</u>

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REFERENCES

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Freeland, P. B., 1932:

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Shearer, J. T., 1982A:

Geological Geochemical and Geophysical Report on the Ladner Creek North Project. Private Carolin Mines Report, 117 pp., April 30, 1982

1982B:

Preliminary Investigation on Sulfide Distribution, Idaho Orebody, Progress Report 1. Private Carolin Mines Report, 22 pp., 5 figures.

1982C:

Summary Report on the Ladner Creek North Project. Private Carolin Mines Report 51 pp., Nov., 23, 1982

1982D:

800 Track Level, 850N to 867N, December 8, 1982, Memorandum, Carolin Mines Files, 1 pp., 1 map

1983A:

Geological Mapping on 800 Track Level to Accompany Figures 1, 2 and 3. Memorandum, February 22, 1983, Carolin Mines Files, 8 pp., 3 maps

1983B.

Geological Mapping of the Crusher Decline and AURUM MINE EXPLORATION PROPOSAL, Memorandum, Mar. 23, 1983, Carolin Mines Files, 5 pp., 1 map

1983C:

Re-logging Idaho Mine Drill Core, Cross Sections 733N, 750N, 934N, 966n, Memorandum, May 30, 1983, Carolin Mines Files, 2 pp.

1983D:

North Exploration, 800 Level, Proposal Memorandum, June 23, 1983, 3 pp., Carolin Mines Files.

1983E:

North Exploration, 800 Level, Budget Memorandum, July 7, 1983, 1 pp. Carolin Mines Files.

1983F:

Geological and Diamond Drilling Report on the Ladner Creek North Project, B.C.D.M. Assessment Report, July 20, 1983

1983G:

Possible ore zones above #2 zone near 1050 elevation at Surface. Memorandum August, 1983, 2 pp., Carolin Mines Files.

1983H:

Data File from D. R. Cochrane, Memorandum, August 8, 1983, 1 pp., Carolin Mines Files.

1983I:

Preliminary Cost - Benefit Comparison 862 Level vs. 800 Level Idaho North Exploration and Diamond Drilling. Memorandum, Aug. 24, 1983, 4 pp., Schedule and Map.

1983J:

Idaho, North Exploration, Diamond Drilling for the Month of September, Memorandum, October 11, 1983, 3 pp. and 2 maps, Carolin Mines Files.

1983K:

Report on Detail Sample Test Program, 79 Stope No. 1 Zone, Idaho Orebody, Feb. 7 to Feb. 19, 1983. Private Carolin Mines Report, Feb. 25, 1983, 6 pp.

1983L:

Detail Sampling Program on the Rod Mill Discharge and Rod Mill Feed. Private Carolin Mines Report, June 15, 1983, 10 pp.

1983M:

Re-Processing and Gold Recovery from Tailings within the Tailings Pond, August 14, 1983, Private Carolin Mines Report, 6 pp. plus maps

1983N:

Month-end Geological Report - July 1983, Private Carolin Mines Report, Aug. 7 1983, 4 pp.

1988:

Diamond Drilling Report on the Aurum Project, February 29, 1988, 28 pp. for Carolin Mines Ltd.

1989A:

Preliminary Summary Report on the McMaster Zone, Private Carolin Mines Report, 5 pp., November 20, 1989

1989B:

Geological, Geochemical, Geophysical and Diamond Drilling Report on the McMaster Zone, Private Carolin Mines Ltd. Report, 24 pp., December 6, 1989.

1990A:

Diamond Drilling Report on the Idaho Zone, Private report for Anglo Swiss Mining Corp., January 4, 1990, 23 pp.

1990B:

Progress Report No. 2 - Key Geological Concepts concerning the Idaho Mine and Proposed North Exploration - January 1990.

1990C:

Trenching Report on the McMaster Zone. Private report for Anglo Swiss Mining Corp.

1993:

Geological and Diamond Drill Assessment Report on the Emancipation Mine. Private report for Homegold Resources Ltd.

1995:

Geological and Geochemical Assessment Report on the McMaster 1 - 112 Claims. Private report for Athabaska Gold Resources Ltd. August 15, 1995., 28 pp.

1996:

Geological Report on Underground Development and Diamond Drilling, Idaho Gold Deposit, Private Report for Athabaska Gold Resources Corp. Dated June 1, 1996, 100 pp.

Shearer J. T., Niels, R. J. E., 1983:

Carolin Mines: A Geological Update, Western Miner, November, pages 21 - 24

Shearer J.T., Dickson, M. P., Kermeen, J., 1997:

The Geology of the Idaho-McMaster Zone, Ladner Creek Project. Abstract and CD-ROM, CIM 97 April 29, 1997. Canadian Institute of Mining, Metallurgy and Petroleum.

APPENDIX I

STATEMENT of QUALIFICATIONS

J.T. Shearer

D.G. Cardinal

D.A. Heino

September 15, 1997

APPENDIX I

STATEMENT OF QUALIFICATIONS

I, JOHAN T. SHEARER, of 1817 Greenmount Avenue, in the City of Port Coquitlam, in the Province of British Columbia, do hearby certify:

- 1. I am a graduate of the University of British Columbia (B.Sc., 1973) in Honours Geology, and the University of London, Imperial College (M.Sc., 1977).
- 2. I have over 25 years of experience in exploration for base and precious metals and industrial mineral commodities in the Cordillera of Western North America with such companies as McIntyre Mines Ltd., J. C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd.
- 3. I am a fellow in good standing of the Geological and Geochemical Association of Canada (Fellow No. F439) and I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (Member No. 19,279).
- 4. I am an independent consulting geologist employed since December 1986 by Homegold Resources Ltd. Unit #5-2330 Tyner Street, Port Coquitlam, British Columbia.
- 5. I am a co-author of this report entitled "Geological and Geochemical Assessment Report on the Ghostpass Group" dated Sept. 15, 1997.
- 6. I have visited the property in September 14 16, October 2-5, 1996, May 2-4, June 5 and July 1, 1997 and carried out geological mapping and sample collection. I am familiar with the regional geology and geology of nearby properties. I have become familiar with the previous work conducted on the Ghostpass property by examining in detail the available reports, plans and sections, and have discussed previous work with persons knowledgeable of the area.
- 7. I own a part interest in the property described herein.

Dated at Port Coquitlam, British Columbia, the 15th day of September, 1997.

J. T. Shearer, M.Sc., F.G.A.C., P.Geo.

STATEMENT OF QUALIFICATIONS

I, DANIEL G. CARDINAL, of the Municipality of Hope, in the Province of British Columbia, do hearby certify that:

- 1. I am a professional geologist residing in Hope, B.C. Mailing address, P. O. Box 594, Hope, B.C., VOX 1LO.
- 2. I am a graduate of the university of Alberta (1975) and hold a B.Sc. degree in Geology.
- 3. I am registered as a Fellow of the Geological Association of Canada, (F.G.A.C.) and a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta. (P.Geo.)
- 4. I have been practicing my profession for the past twenty-one years.
- 5. The findings in this report are from data acknowledged and from a personal property examination of the Ghostpass Claim Group between September 14, 1996 and July 1997.
- 6. I own a part interest in the property described herein.

Dated at Hope, British Columbia, the 15th day of September, 1997.

Daniel G. Cardinal, P.Geo.

STATEMENT OF QUALIFICATIONS

I, David A. Heino, of 521 - 3rd Ave., Hope, in the Province of British Columbia, do hearby certify that:

- 1. I prospected for Mastodon-Highland Bell Mines LTD. from 1963 to 1969.
- 2. I was a self-employed Prospector-Exploration Contractor from 1969 to 1971.
- 3. I prospected for Carolin Mines, Cochrane Consultants Ltd., Precambrian Shield Resources Ltd. and Aquarius Resources Ltd. from 1973 to 1978.
- 4. I was Chief Prospector for Welcome north mines Ltd., Esperanza Explorations Ltd., Columbia Gold Mines Ltd. from 1978 to 1992.
- 5. I am a self-employed Prospector-Exploration Contractor from 1992 to the present.
- 6. I am an Underground Shift Boss, Certificate Number UG895.
- 7. I worked on the Ghostpass Claims between September 14, 1996 and July 4, 1997.
- 8. I own a part interest in the property described herein.

Dated at Hope, British Columbia, the 15th day of September, 1997.

David A. Heino, Prospector

APPENDIX II

STATEMENT of COSTS

September 15, 1997

APPENDIX II

STATEMENT OF COSTS

Wages & Benefits:		
J.T. Shearer, M.Sc., P.Geo., Geologist Sept. 14-16 & Oct. 2-5, 1996, May 2-4, June 5 & July 1, 1997 12 days @ \$300/day	\$	3,600.00
Dan Cardinal, P.Geo., Geologist Sept. 14-16 & Oct. 2-5, 1996, May 2-4, June 5-7 & July 1-3, 199 16 days @ \$300/day		4,800.00
Dave A. Heino, Prospector Sept. 14-16 & Oct. 2-5, 1996, May 2-4, June 5-7 & July 1-3, 199 16 days # \$250/day	7 \$	4,000.00
Subtotal	\$	12,400.00
Mobilization:		
4x4 Fully equipped Truck, plus gas 16 days @ \$74.32/day	\$	1,189.00
Meals & Accommodation 12 man days @ \$60/man day	\$	720.00
Analytical Min En Labs, Soils & Rocks	\$	2,601.00
Radio Rental 16 days @ \$20/day	\$	320.00
Base map and Drafting	\$	400.00
Report Preparation & Word-processing	\$	1,200.00
Reproduction	<u>\$</u>	125.00

TOTAL

\$18.955.00

APPENDIX III

ANALYTICAL DATA

September 15, 1997

FL.F ND: 7V-0504-SJ1+2+3

MIN-EN LABS - ICP REPORT 8282 SHERBROOKE ST., VANCOUVER, B.C. V5X 4EB

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SPECIALISTS IN MINERAL ENVIRONMENTS CHEMISTS + ASSAYERS + ANALYSTS + GEOCHEMISTS

Geochemical Analysis Certificate

VANCOUVER OFFICE: 8282 SHERBROOKE STREET VANCOUVER, B.C., CANADA V5X 4E8 TELEPHONE 16041 327-3436 FAX (604) 327-3423

SMITHERS LAB: 3176 TATLOW ROAD SMITHERS, B.C., CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

6V-0932-SG2

Date: NOV-01-96

Company: **D.HEINO** Project: Attn: **D.HEINO**

We hereby certify the following Geochemical Analysis of 24 SOIL/SILT samples submitted OCT-28-96 by D.HEINO.

Sample	Au-wet	As	Cu	
Number	PPB	PPM	PPM	
DH-96-25	15	108	51	
DH-96-26	5	84	26	
DH-96-27	5	52	35	
DH-96-28	5	25	29	
DH-96-29	5	29	28	
DH-96-30	10	50	41	
DH-96-31	5	17	16	
DH-96-32	5	79	35	
DH-96-33	5	33	26	
DH-96-34	5	21	30	
DH-96-35	5	65	28	······································
DH-96-36	5	124	40	
DH-96-37	5	350	49	
DH-96-38	5	119	57	
DH-96-39	5	27	24	
DH-96-40	5	37	29	
DH-96-41	5	48	36	
DH-96-42	10	105	40	
DH-96-43	5	25	27	
DH-96-44	20	54	20	
DH-96-45	5	33	14	
DH-96-46	10	300	25	
DH-96-47	. 15	47	23	
DH-96-48	10	101	74	
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FIL. Certified by

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Geochemical Analysis Certificate

D.HEINO Company: Project: D.HEINO Attn:

We hereby certify the following Geochemical Analysis of 23 SOIL samples submitted JUN-24-97 by D.HEINO.

Sample Number	au-wet PPB	as Ppm	
BL50+500N-50+000E	45	400	
BL50+600N-50+000E	10	32	
BL50+700N-50+000E	20	63	
BL50+600N-50+000E	20	31	
BL50+900N-50+000E	10	43	
BL51+000N-50+000B	20	35	
DH97-22	15	22	
DH97-23	15	45	
DH97-24	10	59	
DH97-25	20	69	
DH97-26	80	64	
DH97-27	25	150	
DH97-28	150	325	
DH97-29	15	175	
DH97-30	20	34	
DH97-31	610	275	
DH97-32	755	700	
DH97-33	595	900	
DH97-34	45	525	
DH97-35	45	66	
DH97-36	70	68	
DH97-26-1	95	86	
DH97-28-1	105	775	

Certified by

MIN-EN LABORATORIES

604 327 3423 P.02

VANCOUVER OFFICE: 8282 SHERBROOKE STREET VANCOUVER, B.C., CANADA V5X 458 TELEPHONE (604) 327-3436

SMITHERS LAB: **5175 TATLOW ROAD** SMITHERS, B.C., CANADA VOI 2NO ... TELEPHONE (504) 847-3004

7V-0542-SG1

Date: JUL-04-97

MIN-EN LABS



SPECIALISTS IN MINERAL ENVIRONMENTS CHEMISTS + ASSAYERS + ANALYSTS + GEOCHEMISTS

Quality Assaying for over 25 years

Assav Certificate

D.HEINO Company: Project: D.HEINO Attn:

We hereby certify the following Assay of 7 ROCK samples submitted JUN-24-97 by D.HEINO.

	Sample Number
 104 .01	0-65104
105 .01	0-65205
ê 1.95	11408
9 , 56	11409
 0 1.57	11410
 1 1.31	11411
2	11412
 105 .01 0 1.95 0 1.57 1 1.31	0-65105 11408 11409 11410 11411

604 327 3423

VANCOUVER OFFICE: 6282 SHERBROOKE STREET VANCOUVER, B.C., CANADA VSX 4EE TELEPHONE (804) 327-3438 FAX (804) 327-3423

SMITHERS LAB: 3176 TATLOW ROAD SMITHERS, S.C., CANADA VOJ 2ND TELEPHONE (604) \$47-3004 FAX (604) \$47-5005

7V-0542-RA1

P.03

Date: JUL-04-97

Certified by



SPECIALISTS IN MINERAL ENVIRONMENTS CHEMISTS • ASSAYERS • ANALYSTS • GEOCHEMISTS VANCOUVER OFFICE: 8282 SHERBROOKE STREET VANCOUVER, B.C., CANADA V5X 4E8 TELEPHONE (604) 327-3436 FAX (604) 327-3423

SMITHERS LAB: 3176 TATLOW ROAD SMITHERS, B.C., CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

Geochemical Analysis Certificate

6V-0932-RG1

Date: NOV-01-96

Company: **D.HEINO** Project:

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Attn: D.HEINO

We hereby certify the following Geochemical Analysis of 4 ROCK samples submitted OCT-28-96 by D.HEINO.

Sample	Au-wet	
Number	PPB	
61309	175 - 2+2 +++++ 200 + 10 5.14, +13.114 - 24.12+ 10 5.14, +13.114 - 24.12+	
61310	10 s. Ity org. It te 124. 120	
61311	45	
61312	60 1	

Certified by

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SMITHERS LAB: 3176 TATLOW ROAD SMITHERS, B.C., CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX 1604) 847-3005

Geochemical Analysis Certificate

6V-0932-SG1

Date: NOV-01-96

Company: **D.HEINO** Project: Attn: **D.HEINO**

We hereby certify the following Geochemical Analysis of 24 SOIL/SILT samples submitted OCT-28-96 by D.HEINO.

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<u>.</u>

Sample	Au-wet	As	Cu	
Number	PPB	PPM	PPM	
DH-96-01	10	84	50	- Al CI town
DH-96-02	20	105 '	69	South Ghaspass
DH-96-03	70	500	67	
DH-96-04	10	60	36	
DH-96-05	5	46	40	
DH-96-06	5	69	32	
DH-96-07	40	114	50	
DH-96-08	5	35	20	
DH-96-09	10	31	12	
DH-96-10	5	27	11	
DH-96-11	20	105	39	
DH-96-12	10	129	40	
DH-96-13	10	41	37	
DH-96-14	10	44	38	
DH-96-15	10	39	43	
DH-96-16	15	450	35	
DH-96-17	5	122	26	2 Ghostpass
DH-96-18	760	1500	78	2 claters
DH-96-19	385	9375	57	6 GNOS (Pass
DH-96-20	210	130 -	182) (
DH-96-21	145	1175	43	
DH-96-22	10	78	33	
DH-96-23	10	54	20	
DH-96-24	45	56	39	

Certified by



SPECIALISTS IN MINERAL ENVIRONMENTS CHEMISTS + ASSAYERS + ANALYSTS + GEOCHEMISTS

VANCOUVER OFFICE:

8282 SHERBROOKE STREET VANCOUVER, B.C., CANADA V5X 4E8 TELEPHONE (604) 327-3436 FAX (604) 327-3423

SMITHERS LA8: 3176 TATLOW ROAD SMITHERS, B.C., CANADA VOJ 2NO TELEPHONE (604) 847-3004 FAX (604) 847-3005

Geochemical Analysis Certificate

6V-0932-SG3

Date: NOV-01-96

Company: **D.HEINO** Project: Attn: **D.HEINO**

We hereby certify the following Geochemical Analysis of 8 SOIL/SILT samples submitted OCT-28-96 by D.HEINO.

Sample	Au-wet	As	Cu	
Number	PPB	PPM	PPM	
DH-96-49	5	38	29	
DH-96-50	70	500 ·	24	
DH-96-51	10	34	15	
DH-96-52	5	700	21	
DH-96-53	5	39	23	
DH-96-54	5	68	27	
DH-96-55	20	350	35	
DH-96-56	35	325	55	

Certified by_____

MIN-EN LABORATORIES



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