GEOPHYSICAL

	<u>SSESSMENT REPORT</u>
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Gold Commissioner's Office VANCOUVER, B.C. Y	TAL CLAIM GROUP
	<u>AC LA HACHE AREA</u>
<u>CLIN</u>	TON MINING DIVISION

by

MURRAY S. MORRISON, B.Sc.

<u>CLAIMS</u> :	Vital 5, 6, 8, 9, 11, 13-16, 57, 60 & 61 (12-units).	
LOCATION:	The Vital Claim Group is situated 5 km southeast of Rail Lake,	
	or 14 km northeast of Lac La Hache, B.C.	
	Lat. 51°55'; Long. 121°24';	
	N.T.S. Map 92-P-14W	
OWNER:	Doublestar Resources Ltd. and M. S. Morrison	
OPERATOR:	Doublestar Resources Ltd. and M. S. Morrison	
DATE STARTED:	August 29, 1999	
DATE COMPLETED:	September 2, 1999	





November 25, 1999

Kelowna, B.C.

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SUMMARY

During late August and early September, 1999, a ground VLF-EM survey was conducted by the writer over portions of the Vital Claim Group located 2 km west of Timothy Creek, 14 km northeast of Lac La Hache in the Clinton Mining Division of British Columbia.

The Vital Claim Group is jointly owned by the writer, M. Morrison, of Kelowna, B.C. (70%) and by Doublestar Resources Ltd. of Vancouver, B.C. (30%). The claim group consists of 12 contiguous 2-post mineral claims which cover much of the perimeter of a strong airborne magnetic anomaly that is outlined on a government aeromagnetic map.

The original staking of the airborne anomaly in 1991 was inspired by the success achieved at the well-known Mount Polley deposit which is located within similar geology 70 km northwest of the Vital property. The Mount Polley geology consists of an alkaline laccolith that is intrusive into Nicola Group rocks. The geology features a late breccia phase and mineralization that is made up of magnetite with economic values of chalcopyrite and gold (i.e. mineable reserves of 81.5 million tons of 0.30% copper and 0.414 grams of gold). This deposit is currently being extracted by open pit mining.

Encouraging drill results announced in May 1993 by GWR Resources Ltd. from their Peach Lake property, located 8 km northeast of the Vital property, further prompted interest in the Vital Claim Group. GWR Resources diamond drill hole 93-14 intersected 9.6 metres of skarn mineralization grading 0.86% copper, 47% magnetite and 0.26 g/t gold.

Ground magnetometer surveys conducted by the writer on the Vital property during the years 1992 - 95 have outlined several strong magnetic anomalies that form a ring pattern around the airborne magnetic anomaly. It is thought that the airborne anomaly might represent an alkaline or basic body that is intrusive into the Upper Triassic Nicola Group rock underlying

SUMMARY continued

the property and that the strong magnetic anomalies that surround the general anomaly could represent magnetite-enriched contact metasomatic deposits that border the inferred intrusive.

Some linear magnetic "lows" which cross the general magnetic high are thought to represent late faults along which the original magnetite of the intrusive has been altered by hydrothermal activity into non-magnetic minerals.

A percussion drilling program conducted under the supervision of the writer in February, 1996, was designed to test several of the strong magnetic anomalies as well as a couple of the magnetic lows. With the exception of three drill holes which failed to reach bedrock, all drill holes intercepted a massive, black andesite lapilli tuff and agglomerate of the Upper Triassic Nicola Group that is moderately magnetic. Good prophylitic and argillic alteration zones were encountered, along with some minor dyking in the drill holes, but no "basement" intrusives or contact metasomatic deposits were found.

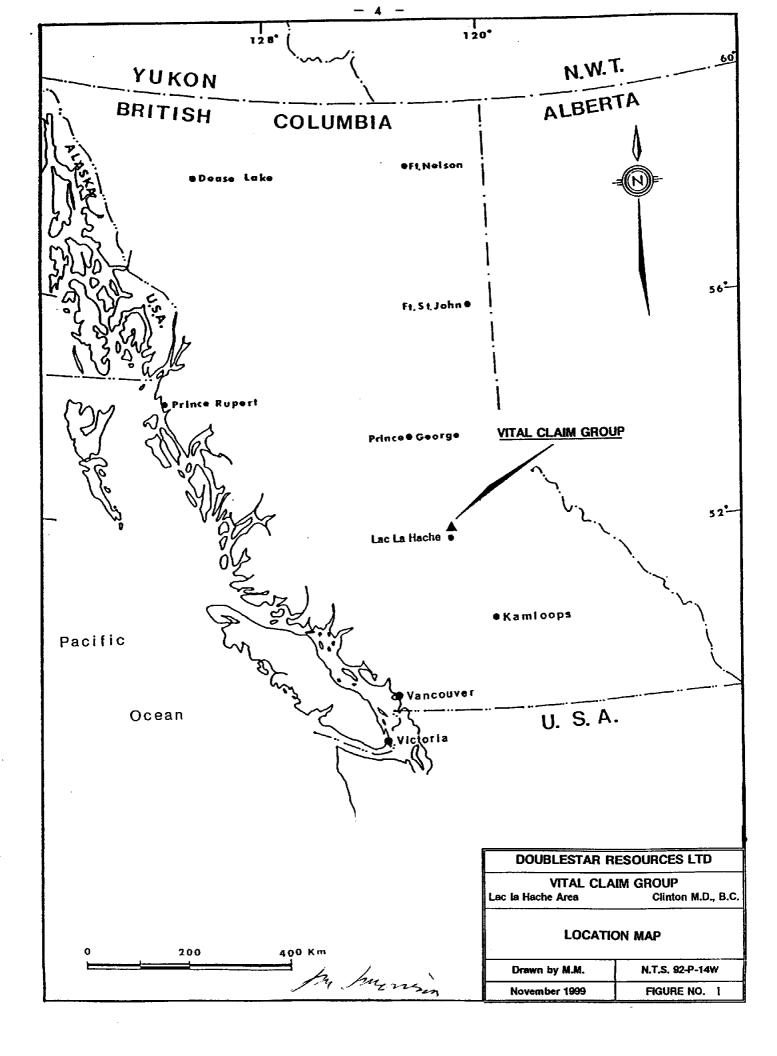
Elevated values of copper, arsenic and gold were obtained from some of the drill intersections, but nowhere were the numbers truly significant.

It is thought that the strong magnetic anomalies fringing the inferred intrusive may represent concentrations of magnetite lying below the depths reached by the 1996 drilling program, and that contact metasomatic deposits may still be found on the property.

The results of this year's VLF-EM survey would appear to confirm that the magnetite zones lie at depth. Even the strongest magnetic anomalies failed to yield a response during this year's survey. The survey did, however, outline several weak north trending conductors, that are thought to represent late fault zones which cross the inferred intrusive body.

The conclusion, drawn from both the 1996 drilling program and this year's VLF-EM survey, is that the magnetite-enriched contact metasomatic deposits do not lie near surface on the property.

It is recommended that an experimental Induced Polarization survey be conducted over some of the strongest magnetic anomalies in an attempt to locate magnetite-enriched contact metasomatic zones adjacent the inferred intrusive at depths of 150 to 300 metres.



INTRODUCTION

This report, written for government assessment work requirements, discusses the results of a ground VLF-EM survey conducted over portions of the Vital 8, 9, 11 & 57 mineral claims by the writer during August - September, 1999.

The mineral claims, over which the survey was conducted, form a part of the Vital Claim Group which is comprised of 12 contiguous 2-post mineral claims. The mineral claims were staked by the writer, M. Morrison of Kelowna, B.C. over a period of eight years.

The property, which is located 2 km west of Timothy Creek, 14 km northeast of the Lac La Hache, B.C., has been expanded and reduced a few times over the past eight years. The present 12 mineral claims cover much of the perimeter of an oval-shaped airborne magnetic anomaly that is outlined on government aeromagnetic map 5232G-Lac La Hache.

Several detailed ground magnetometer surveys conducted by the writer from 1992 to 1995 outlined a series of strong magnetic anomalies in a circular pattern around the edge of the airborne magnetic anomaly. It is thought that the strong ground magnetic anomalies represent contact metasomatic concentrations of magnetite which are believed to fringe an alkaline or basic body that has intruded rocks of the Upper Triassic Nicola Group which underlie the property.

A shallow percussion drilling program was conducted on the property in 1996 under the direction of the writer. Fourteen drill holes, totalling 417 metres tested several of the strong magnetic anomalies to shallow depths. No high grade concentrations of magnetite were discovered, and it is now believed that most of the drill holes were too shallow to reach their objective. The drill holes did, however, provide samples of bedrock from scattered locations across the till covered property.

INTRODUCTION continued

It is thought that should magnetite-enriched metasomatic deposits be found on the Vital property that they might contain gold and/or copper values similar to those found on the Peach Lake property of GWR Resources Ltd. which lies 8 km to the northeast.

This year's experimental VLF-EM survey was designed to cross some of the stronger magnetic anomalies in the vicinity of the 1996 drill holes. It was hoped that the survey might better define the geometry of some of the magnetite zones that are believed to underlie the property. It was also thought that the survey might identify structures (i.e. faults and intrusive contacts) that are hidden by the till cover.

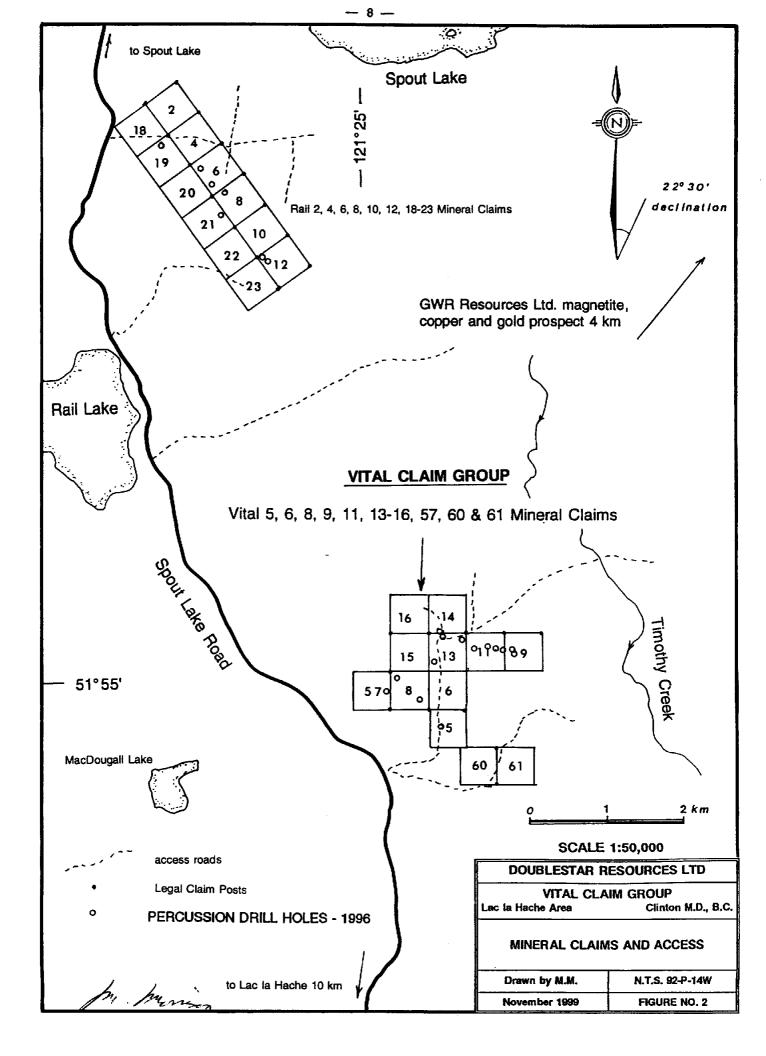
It was intended that the Annapolis, Maryland VLF signal station be used for surveying the east trending magnetic anomalies and that the Seattle, Washington VLF signal station be used for surveying the north trending magnetic anomalies, Unfortunately, the Annapolis signal was very weak and the Seattle signal was used for all of the surveys.

The VLF-EM data recorded this year is illustrated on Figures 3-7. Figures 3, 5 & 6 show the In-Phase Dip Angle and the Field Strength data for all of the surveys, while Figures 4 and 7 represent two of the surveys in the Fraser Filtered contour format.

LOCATION AND ACCESS

The Vital property is located near Timothy Creek, 5 km southeast of Rail Lake, or 14 km northeast of Lac La Hache, B.C. (Lat. 51°55': Long. 121°24'; N.T.S. Map 92-P-14W).

Access to the property from Highway 97 at Lac La Hache is via the Spout Lake Road (13.2 km) and the #151 logging road which transects the property as illustrated on Figure 2. Secondary dirt roads give access to most areas of the property.



PHYSICAL FEATURES AND CLIMATE

The Vital property covers an area of subdued relief at the 1140 metre elevation near the centre of the Fraser Plateau.

Timothy Creek, 2 km east of the property, drains an upland region lying to the northeast of the property. Rail Creek, originating at Rail Lake, 5 km northwest of the property, flows through a shallow valley 2 km to the southwest of the property.

Much of the property is mantled by a clay till or glacial drift believed to range from 3 to 10 metres thick. Rock exposures occur only on the Vital 61 mineral claim at the southeast corner of the property.

Forest cover on the property is a mix of Lodgepole pine, poplar, spruce, and Douglas fir. The forest cover reflects the drainage conditions on the property, with Lodgepole pine covering the well drained gravel drift covered regions, and spruce more abundant in low lying poorly drained regions. Mature poplar fringes the spruce forest, while large Douglas fir are most predominant in the rocky terrain on the southeast corner of the property.

A good deal of the pine forest on the property has been clear-cut logged in recent years, and the property is used as summer rangeland for livestock.

The Fraser Plateau has a moderate climate with summer highs seldom exceeding 30°C and winter lows usually not dropping below -30°C. Precipitation equals approximately 40 cm annually and one-third of it occurs in the form of snow. The snow begins to accumulate around the first of November and generally lingers in the forested areas until early April.

CLAIM STATUS

The Vital Claim Group is comprised of the Vital 5, 6, 8, 9, 11, 13-16, 57, 60 & 61 contiguous 2-post mineral claims which are located in the Clinton Mining Division.

The writer, M. Morrison of Kelowna, B.C., owns a 70% interest in the claim group, while Doublestar Resources Ltd., a listed company on the Vancouver Stock Exchange, maintains a 30% interest.

The mineral claims included in the Vital Claim Group are listed below:

CLAIM <u>NAME</u>	<u>UNITS</u>	TENURE <u>NUMBER</u>	DATE OF <u>RECORD</u>	EXPIRY DATE *
Vital 5	1	304249	September 6, 1991	September 6, 2000
Vital 6	1	304250	September 6, 1991	September 6, 2000
Vital 8	1	304252	September 6, 1991	September 6, 2005
Vital 9	1	304253	September 7, 1991	September 7, 2000
Vital 11	1	304255	September 7, 1991	September 7, 2000
Vital 13	1	304257	September 7, 1991	September 7, 2000
Vital 14	1	304258	September 7, 1991	September 7, 2000
Vital 15	1	304259	September 7, 1991	September 7, 2000
Vital 16	1	304260	September 7, 1991	September 7, 2000
Vital 57	1	320575	August 31, 1993	August 31, 2005
Vital 60	1	371837	September 22, 1999	September 22, 2000
Vital 61	1	371838	September 22, 1999	September 22, 2000

*Note: The Expiry Dates are based on the acceptance of this report for Assessment Work Credits.

HISTORY AND PREVIOUS WORK

The Vital property covers a portion of ground that was formerly covered by the WD mineral claims of Amax Exploration Inc. (1972-73) and the FF mineral claims of Anaconda American Brass Limited (1966-67). Both the WD and FF properties may have extended further south than the current Vital property.

Exploration work on the FF mineral claims by Anaconda included silt and soil geochemistry, geological mapping, and Induced Polarization (I.P.) surveying in 1966, and further mapping, geophysical surveying and trenching in 1967 (Lode Metals in British Columbia, 1966 & 67).

In 1972, Amax restaked some of the FF property with the WD 1-28 mineral claims and carried out geological, geochemical (soil) and geophysical (magnetometer and I.P.) surveys. Further I.P. surveys in 1973 were followed-up with the drilling of three percussion drill holes, totalling 275 metres, on the WD 5, 13, and 22 mineral claims (G.E.M. 1972&73). Apparently the results were negative and the ground was allowed to lapse.

There is no record of any work having been done on the property from 1974 until 1992. In 1992, the writer conducted a ground magnetometer survey over the Vital 9-14, 26, 28, 41-44 & 49-52 mineral claims on a 25 by 200 metre grid, and in 1993 & 94 expanded the survey to cover the Vital 1-8, 15 & 16 mineral claims on a 25 by 100 metre grid (Morrison, 1992, 93 & 94). In 1995, intermediate lines of 100 metre spacing were surveyed with the magnetometer across the Vital 9-14 mineral claims to better define some of the features outlined during the 1992 survey (Morrison, 1995).

Several of the strong magnetic anomalies identified during the 1992-95 surveys were tested with 14 percussion drill holes in February, 1996. A total of 417.4 metres of drilling were done on the Vital 5, 8, 9, 11, 13, 14, & 57 mineral claims. Most of the drill holes ranged from 15 to 47 metres, but on hole was drilled to 96 metres. None of the drill holes encountered enough magnetite to account for the strong magnetic anomalies.

REGIONAL GEOLOGY

The regional geology of the Lac La Hache area is illustrated on the Bonaparte Lake, 1"=4 mile, map sheet (#1278A) of the Geological Survey of Canada (Campbell and Tipper, 1971). Much of the Fraser Plateau to the west and south of Lac La Hache is mantled with thick Tertiary lava flows of Miocene and/or Pliocene age. However, a wide window in the Tertiary volcanics east of Lac La Hache exposes a 16 by 40 km belt of Upper Triassic Nicola Group volcanics and sediments. The western edge of the large Takomkane Batholith of Triassic or Jurassic age intrudes the Nicola Group rocks at Spout Lake, Mount Timothy, Timothy Lake and Spring Lake 17 km to the northeast and east of Lac La Hache. A 6.5 km wide dioritic and syenodioritic contact phase of the batholith extends 11 km north from Mount Timothy to Spout Lake.

A late fault coincident with Timothy Creek cuts through the centre of the Nicola Group belt on the Bonaparte Lake Map 2 km to the east of the Vital Claim Group.

A volcanic outlier of the Skull Hill Formation of Eccene and (?) Oligocene Age underlies a ridge immediately east of the property on the southwest side of the Timothy Creek Fault.

An outcropping of coarse grained monzonite on the Vital 61 mineral claim suggests that much of the large oval-shaped magnetic anomaly that underlies the Vital property could represent an alkalic to basic body that is intrusive into the Nicola Group rock that underlies the property.

Shallow Pleistocene boulder-clay till (3 to 10 metres) blankets the Vital property.

REGIONAL MINERALIZATION

Copper occurrences are common east of the Timothy Creek Fault within basaltic and andesitic volcanic rocks of the Nicola Group, particularly where they are intruded by micro-dioritic, syenodioritic or monzonitic intrusive bodies. Mineralization consists of chalcopyrite or bornite and ranges from low grade disseminations to higher grade veinlets associated with shearing. Skarn development has also been noted at intrusive-volcanic contacts on the old WC property of Amax Exploration Inc. located immediately south of Spout Lake. Chalcopyrite occurs with magnetite at the skarn occurrences.

Similar chalcopyrite-magnetite mineralization occurs at the contact of an alkalic intrusive complex emplaced into Nicola Group rocks on the old Peach Lake property of Amax Exploration Inc. located just 4 km east of Spout Lake.

The Spout Lake and Peach Lake properties, located 8 km northeast of the Vital property, are presently owned by GWR Resources of Vancouver. A vigorous exploration effort was conducted on these properties in the early 1990's in an attempt to prove up an economic deposit of magnetite, copper and gold. In May, 1993, it was reported that diamond drill hole 93-14 had intersected 9.6 m of skarn mineralization grading 0.86% copper, 47% magnetite and 0.13 g/t gold.

Also, in the early 1990's, a discovery of native copper, chalcopyrite and chalcocite mineralization was announced by Liberty Gold Corp. from their Tim property located near Mount Timothy, 9 km southeast of the Vital property. In 1990, drill hole 90-1 on the Tim property returned 41 metres of 0.40% copper, including 7.0 metres of 2.05% copper, and drill hole 90-10 returned 51.8 metres of 0.25% copper, including 5.2 metres of 1.02% copper (Vancouver Stockwatch, October 17, 1991, p 39).

PROPERTY GEOLOGY

With the exception of the Vital 61 mineral claim, the Vital property is entirely blanketed with till ranging from 3 to 15 metres thick. Most of what is known about the bedrock geology was, therefore, discovered during the 1996 percussion drilling program (Morrison, 1996).

A coarse grained monzonite intrudes andesitic tuff and agglomerate of the Upper Triassic Nicola Group at road exposures on the Vital 61 mineral claim. The monzonite it thought to represent a phase of an inferred intrusion that is expected to underlie much of the property (Morrison 1992-96).

Eleven of the fourteen drill holes drilled in 1996 reached bedrock. These drill holes were located at scattered locations across the property (see Figure 2), but, in each case, the bedrock was comprised of a massive andesite lapilli tuff and agglomerate. The andesitic rock was often altered (e.g. prophylitic and argillic alteration) and in places faulted and intruded by late quartz feldspar porphyry or dioritic porphyry dykes.

The hydrothermal alteration and dyking suggest that an intrusive lies nearby and the hypothesis that it lies under much of the property is still considered valid.

Weak copper, arsenic and gold values were recorded from some of the 1996 drill intercepts, but high grade magnetite was not discovered, and it is now believed that the magnetite zones responsible for the strong magnetic anomalies lie at some depth below the shallow percussion drill holes.

VLF-EM SURVEY - 1999

<u>Grid</u>

Two areas were selected for this year's experimental ground VLF-EM survey. Each area had remnant flags from past survey lines, but these were not suitable for this year's survey. New grid lines were, therefore, established using the old grid numbering system.

Western Grid

This year's western survey is centred over the boundary between the Vital 8 & 57 mineral claims (see Figures 3 & 4). Baseline 40+50W was established over a length of 300 metres at 360 degrees. Four flagged grid lines, spaced at 100 metre intervals were then measured for distances of up to 200 metres to the east and west of the Baseline, as illustrated on Figures 3 & 4. Grid stations were marked at every 25 metre measure along the grid lines. Some of the grid lines were deflected by the strong magnetics in the area.

Eastern Grid

This year's eastern grid covers the northern portions of the Vital 9 & 11 mineral claims (see Figures 5-7). As indicated on Figure 5, Baseline 20+00N was established over a length of 700 metres at 270 degrees. Eight grid lines, spaced 100 metres apart, were then flagged for distances of 350 metres to the south of the Baseline. Grid stations were marked at each 25 metre measure along the grid lines. The strong magnetics in the area caused the defection of many of the compass lines.

Two east-west flagged grid lines (17+50N and 18+50N) were established across the same grid area as described above in order to identify north trending VLF-EM conductors defined with the Seattle, Washington VLF signal.

Grid continued

Eastern Grid continued

A Silva Ranger compass and a Topolite belt chain were use to establish the 6500 metres grid line and Baseline.

Program

The VLF (very low frequency) exploration method makes use of high-powered electromagnetic transmissions broadcast by naval radio communication stations distributed around the world. These transmissions induce electric currents in conductive bodies. The induced current produces secondary magnetic fields which can be detected by measuring deviations in the normal VLF fields. VLF-EM instruments are designed to detect these deviations.

The eastern grid was established across easterly trending linear magnetic highs with the intention of using the Annapolis, Maryland, VLF signal. Unfortunately, the signal was too weak to yield reliable results, so the much stronger Seattle, Washington VLF signal (24.8 kHz) was used for both the eastern and western grid areas. The Seattle signal was received from a direction of 180 degrees azimuth.

A Sabre, Model 27, VLF-EM instrument made by Scintrex was used to conduct the survey over 5.5 km of grid on the Vital property. In-Phase Tilt Angle readings were taken facing a direction 360 degrees at each survey station. East tilts were recorded as positive (+) and west tilts were recorded as negative (-). Field Strength readings were also recorded at each survey station with the instrument facing 090 degrees, azimuth, perpendicular to the Signal Station.

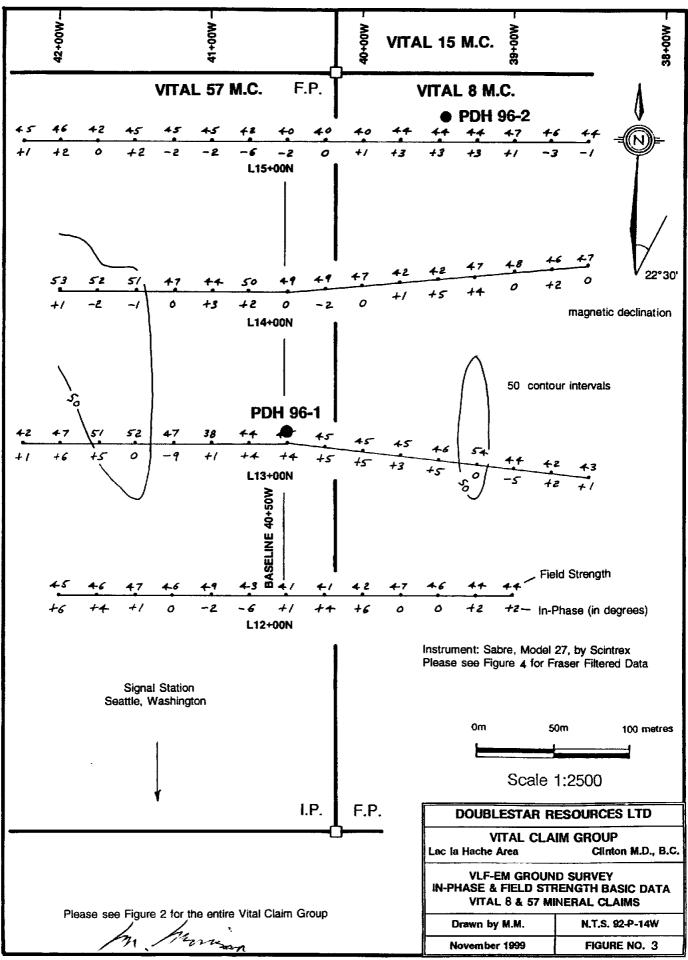
Program continued

Field Strength readings were taken along the Baseline and all grid station readings were then corrected for diurnal variation using the Base Stations along the Baseline in much the same manner as is used for magnetometer surveys. The corrected Field Strength values have been contoured on Figures 3 & 5, which also display the In-Phase Tilt Angles.

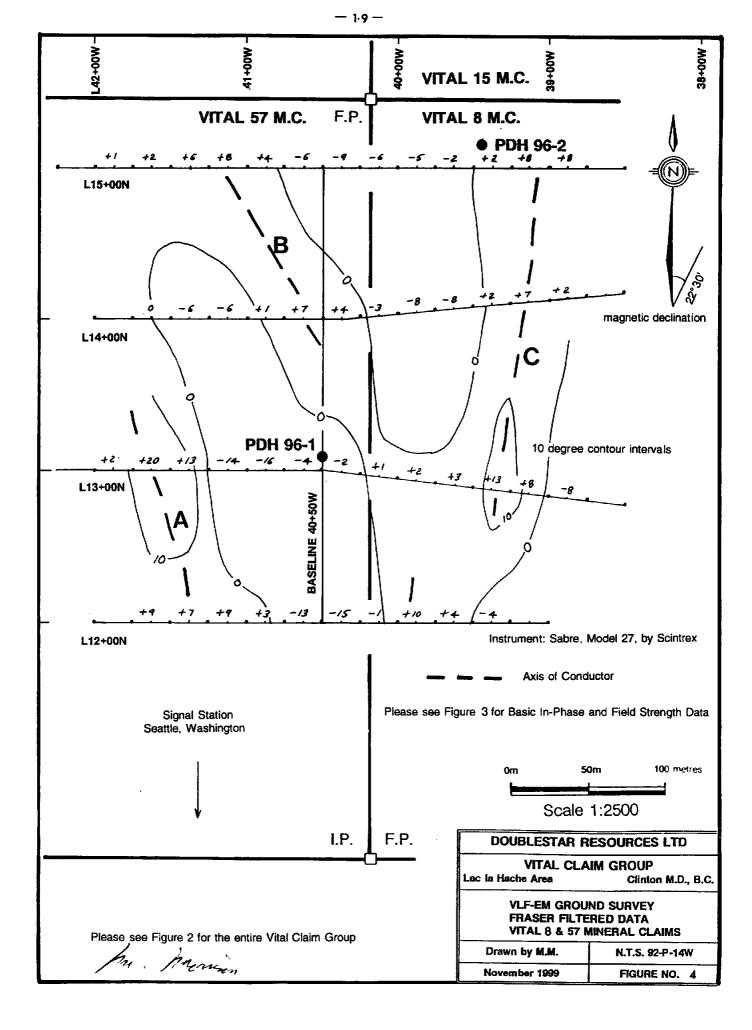
The In-Phase Tilt Angle values have been Fraser Filtered and contoured on Figures 4 & 7. Fraser Filtering of VLF-EM data has had widespread use for several years, and a full explanation of the technique is given in the geophysical paper by Peterson and Ronka that is listed with the references at the end of this report.

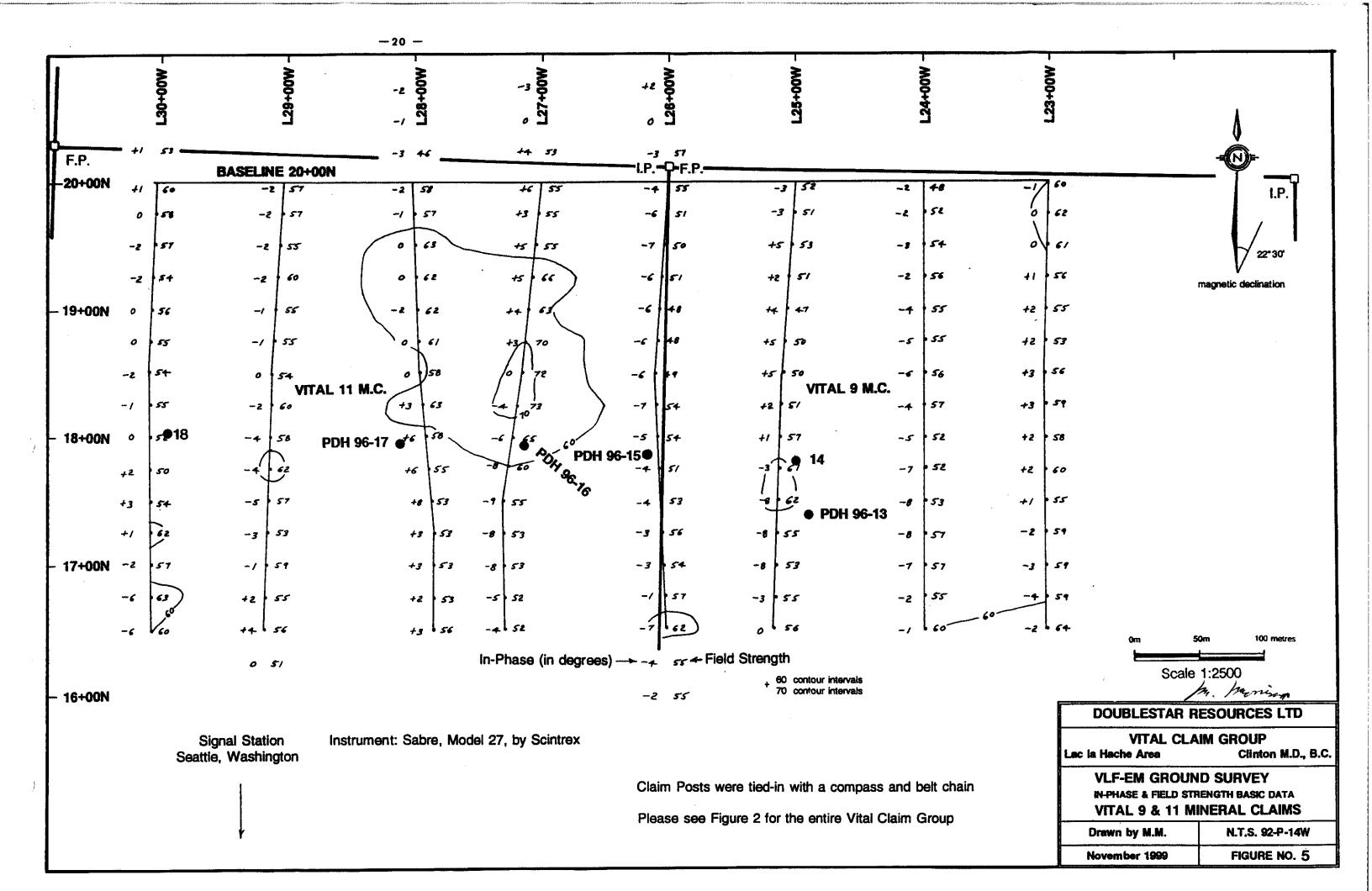
The Fraser filtering technique may be briefly summarized as follows: by means of simple mathematical operations, the tilt data can be transformed into contourable form, and the effects of noise and topography can be filtered from data. By averaging pairs of stations and taking differences between pairs separated by the appropriate distance, values may be plotted and contoured in plan that transform cross-overs into peaks, and a low-pass smoothing mathematical operator reduces noise.

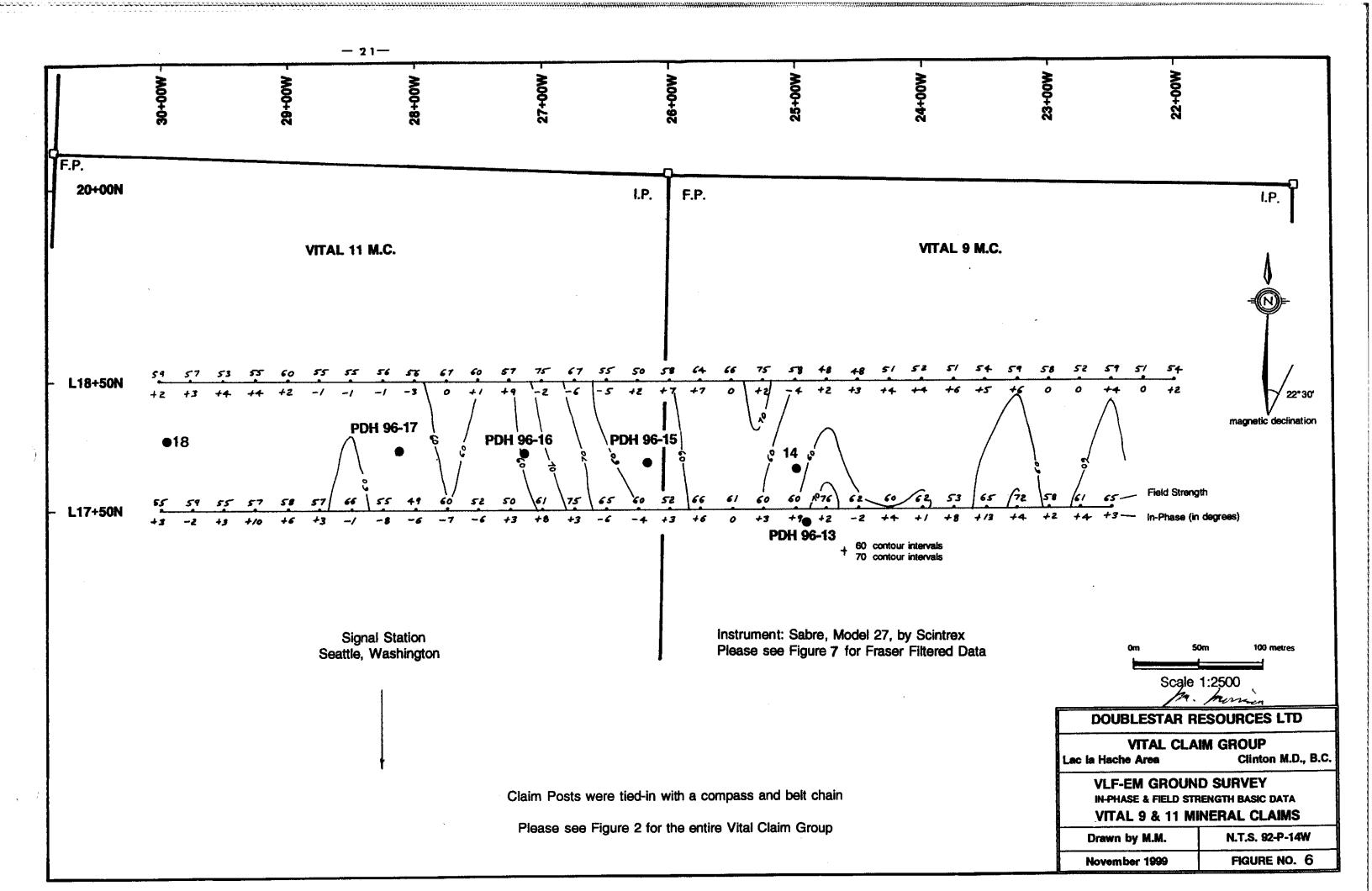
The In-Phase Tilt Angles shown on Figure 5 have not been Fraser Filtered, because the Tilt Angles were recorded parallel to the grid lines and the Fraser Filtering technique has no value in such a case.

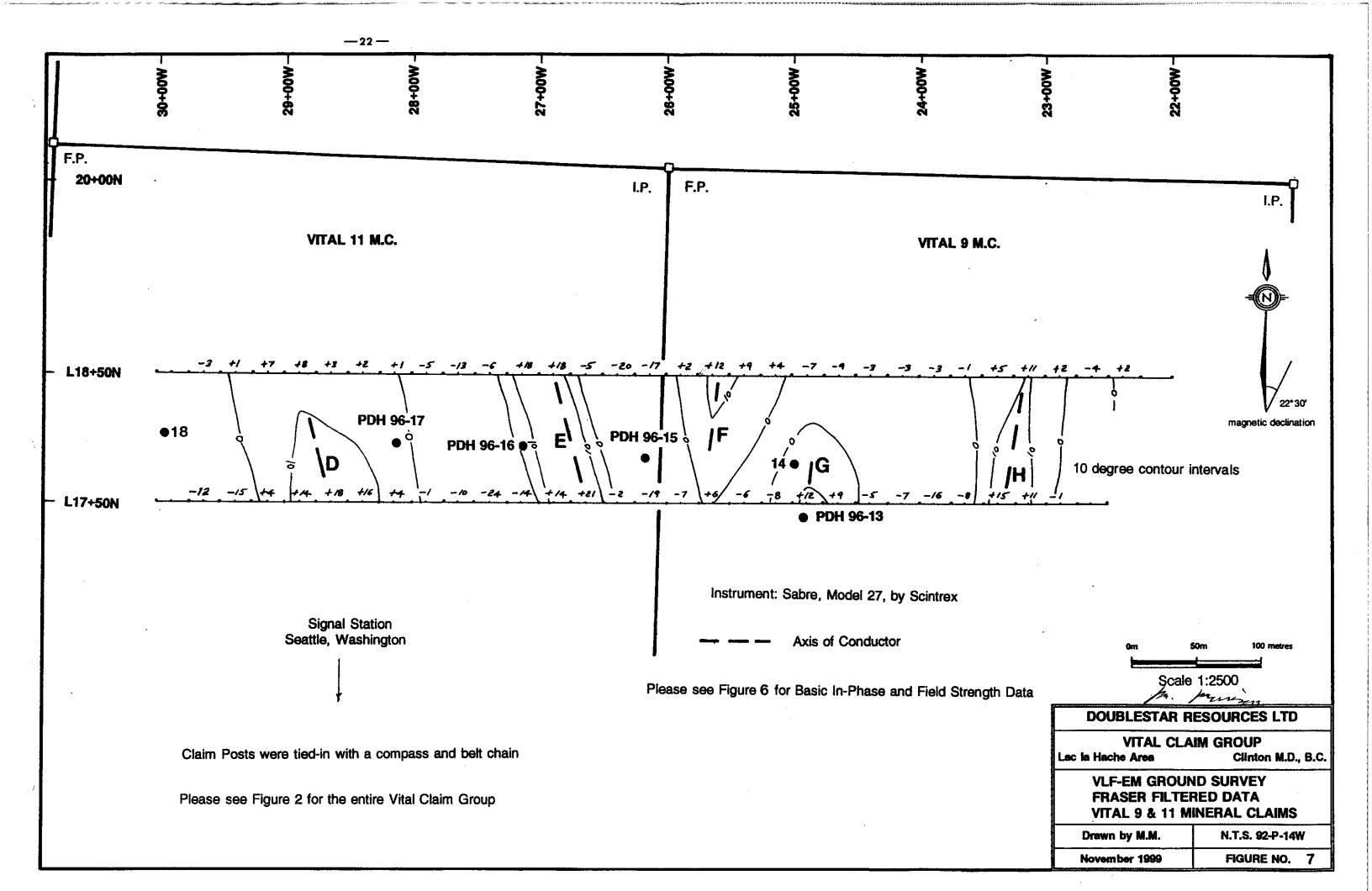


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Results

Field Strength Data

The Field Strength data for the western and eastern grids is illustrated on Figures 3, 5 & 6. The values range from only 38 to 54 on the western grid and from 46 to 76 on the eastern grid. The range of the values is surprisingly low considering the high magnetics in both survey areas. The high magnetite content in the bedrock is not represented in the Field Strength data.

The Field Strength values on Figure 3 have been contoured at 50, while those on Figures 5 & 6 have been contoured at 60 and 70. The larger area outlined with the 50 contour on Figure 3 coincides with the axis of Conductor A on Figure 4. There is also a good correlation between the high Field Strength values on Figure 6 with the axes of conductors on Figure 7. The Field Strength data on Figure 5 indicates that Conductor E on Figure 7 could extend at least another 100 metres to the northwest.

Fraser Filtered In-Phase Data

Western Grid - Figure 4

Conductor A

Conductor A is well defined where it crosses L13N at 41+65W. It is less well defined on L12N at 41+35W where the overburden may be deeper. The conductor is coincident with a magnetic low adjacent a very strong magnetic high. The magnetic gradient is 32000 gammas over a distance of only 100 metres (Morrison, 1995).

Conductor A quite possibly defines the western edge of the inferred intrusive body that is believed to underlie the property (see Property Geology).

Fraser Filtered In-Phase Data continued

Western Grid - Figure 4 continued

Conductor B

Conductor B which extends 100 metres from L14N, 40+65W to L15N, 41+15W is weak, but like Conductor A it coincides with a sharp magnetic gradient outlined during the 1995 magnetic survey. This conductor may also define the western edge of the inferred intrusive.

Conductor C

Conductor C extends 300 metres from L12N, 39+85W to L15N, 39+15W. The conductor crosses a series of magnetic highs that were measured during the 1995 survey. The conductor may represent a high magnetite content in the bedrock.

Eastern Grid - Figure 7

All of the conductors on Figure 7 are short or open to the north or south due to the limits of the grid.

Conductor D

Conductor D is strong, but it extends off of the grid to the south. The conductor aligns with a notable offset of the magnetic contour lines on a map from a 1995 magnetic survey. The conductor may represent a cross-cutting fault.

Conductor E

Conductor E is a strong feature that extends both northwest and southeast from this year's survey area. It coincides with a zone of high magnetic values (1995 survey).

Fraser Filtered In-Phase Data continued

Eastern Grid - Figure 7 continued

Conductor E continued

The conductor is subparallel Conductor D, and like Conductor D, it aligns with a series of offset magnetic lines and it too may represent a cross-cutting fault.

Conductor F

Conductor F is of moderate strength and it extends off of the grid to the north. This conductor does not coincide with any particular feature outlined during the 1995 magnetic survey.

Conductor G

Conductor G is of moderate strength and it extends off of the grid to the south. Conductor G coincides with some high magnetic zones outlined during the 1995 magnetic survey

Conductor H

Conductor H is of moderate strength and it appears to strengthen to the south and off of the grid area. The conductor coincides with the eastern side of a zone of high magnetics (1995 survey) and it may mark the eastern edge of the inferred intrusive (see Property Geology).

Conductors F, G & H are all subparallel and like Conductors D & E they may represent late cross-cutting faults which transect the inferred intrusive.

DISCUSSION

This year's western and eastern grid surveys covered areas with strong magnetic anomalies and shallow overburden. In spite of this, Field Strength values are relatively flat across both survey areas, and many of the VLF-EM conductors are not coincident with the strongest magnetic highs. The strongest magnetic high of all at drill site PDH 96-1 (see Figures 3 & 4) does not show up in the VLF-EM data. Conductors C, E & G are coincident with magnetic highs, but they are also coincident with other magnetic features (e.g. offset contour lines) which suggest that the conductors may represent cross-cutting faults.

In general, it appears that the magnetite content of bedrock geology has had little effect on the results of the VLF-EM survey. The main value of the survey appears to be in defining cross-cutting features such as transverse faults (e.g. Conductors D, E, F & G) and possible intrusive contracts (Conductors A, B & H).

Although it is of interest to know the locations of the inferred intrusive contacts and transverse faulting, these are not primary objectives at this time. The strong magnetic anomalies that fringe the inferred intrusive are still the key targets for exploration. This year's survey results, along with the 1996 drill hole results, suggest that the concentrations of magnetite that have caused the magnetic anomalies lie at some moderate depth on the property and they have yet to be tested.

It is recommended that a deep-penetration induced polarization survey be conducted over some of the strong magnetic anomalies. It is thought that the I.P. survey might outline the geometry of some of the magnetite-enriched metasomatic deposits which are believed to lie at depth on the Vital Claim Group.

CONCLUSIONS AND RECOMMENDATIONS

This year's ground VLF-EM survey conducted over portions of the Vital 8, 9, 11 & 57 mineral claims identified several weak northerly trending conductors. Most of the conductors are thought to represent late fault zones that transect the inferred intrusive which is believed to underlie the property. Some of the conductors may also define the western and eastern borders of the inferred intrusive (see Discussion).

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The VLF-EM survey failed to show any response over some of the strongest magnetic anomalies on the property, and displayed questionable responses over some of the other magnetic anomalies. The failure of the VLF-EM survey to respond to the strongest magnetic anomalies suggests that the concentrations of magnetite responsible for the magnetic anomalies lie at some considerable depth below surface. This observation supports the hypothesis that the drill holes of the 1996 drilling program (Morrison, 1996) were too short to reach the magnetite-enriched contact metasomatic deposits that are believed to fringe the inferred intrusive.

It is recommended that at experimental Induced Polarization survey be conducted over the stronger magnetic anomalies in an attempt to develop a three dimensional geological picture (see Discussion). It is expected that the inferred intrusive will he resistive and that the contact metasomatic deposits enriched with magnetite will be very conductive.

If the I.P. survey is successful, then a drilling program can be initiated to test conductors identified at depth.

It is considered that any magnetite-enriched contact metasomatic deposits found on the Vital property could be expected to carry copper and gold values just as they do elsewhere in the district (see Regional Mineralization).

The property is readily accessible, and water for drilling purposes is close at hand.

Merron munant

November 25, 1999 Kelowna, B.C.

Murray Morrison, B.Sc.

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1 966 :	Lode Metals in British Columbia	pp. 126-131, p. 135.

Morrison, M.S.

1992 &	Two Geophysical Assessment Reports on the Rail Claim Group, Lac La
1993:	Hache Area, Clinton Mining Division, British Columbia.*
1992:	Geophysical Assessment Reports on the Vital Claim Group and Vital Claim
1993, 94	Group II, Lac La Hache Area, Clinton Mining Division, British Columbia.*
& 1995:	Three Geophysical Assessment Reports on the Vital Claim Group, Lac La
	Hache Area, Clinton Mining Division, British Columbia.*
1996:	Percussion Drilling Assessment Report on the Rail Claim Group. La
	Hache Area, Clinton Mining Division, British Columbia.*
1996:	Percussion Drilling Assessment Report on the Vital Link Claim Group, Lac
	Hache Area, Clinton Mining Division, British Columbia.*

<u>REFERENCES</u> continued

- Nikic, Z.T., Pesalj, R., Gorc, D.
 - 1992: Mount Polley Summary Report, Imperial Metals Corporation, public company report for the Cordilleran Round-up.
- Peterson, N. R. and Ronka, V.
 - 1969: Five Years of Surveying with the VLF-EM Method, a paper presented at the 1969 Annual Meeting, Society of exploration Geophysicists.
- * Assessment Reports on file with the Ministry of Energy and Mines of British Columbia

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, Murray Morrison, of the City of Kelowna, in the Province of British Columbia, do hereby state that:

- 1. I graduated from the University of British Columbia in 1969 with a B.Sc. Degree in Geology.
- 2. I have been working in all phases of mining exploration in Canada for the past thirty years.
- 3. During the past thirty years, I have intermittently held responsible positions as a geologist with various mineral exploration companies in Canada.
- 4. I have conducted several geological, geochemical, and geophysical surveys on mineral properties in Southern British Columbia during the past thirty years.
- 5. I conducted the VLF-EM ground survey on the Vital 8, 9, 11 & 57 mineral claims.
- 6. I own a 70% interest in the Vital Claim Group.

marian hong

Murray Morrison - B.Sc.

November 25, 1999 Kelowna, B.C.

APPENDIX B

STATEMENT OF EXPENDITURES - ON THE VITAL CLAIM GROUP

Statement of Expenditures in connection with a VLF-EM Survey carried out on the Vital Claim Group, located 14 km northwest of Lac La Hache, B.C. (N.T.S. Map 92-P-14W) for the year 1999.

VLF-EM SURVEY (5.5 km)

M. Morrison, geologist	2 days @ \$300.00/day	\$ 600.
Truck, 4 x 4 (including gasoline and insurance)	2 days @ \$45.00/day	90.
Meals and Lodging	2 days @ \$55.00/day	110.
Instrument Rental	2 days @ \$35.00/day	70.
Flagging and belt chain thread		 <u>15.</u>
	Sub-total	885.

REPORT PREPARATION COSTS

M. Morrison, geologist (Fraser Filter calculations; plotting and contouring results; analyzing data and writing report.	2 days @ \$300.00/day	\$	600.
Drafting			53.
Typing			107.
Copying Reports		_	<u> 20.</u>
	Sub-total	\$	780.

GRAND TOTAL

\$1,665.

I hereby certify that the preceding statement is a true statement of monies expended in connection with the VLF-EM Survey conducted August 29 to September 2, 1999.

Murray Morrison, - Geologist

November 25, 1999 Kelowna, B.C.