REPORT

on the

MURPHY LAKE PROPERTY

for:
CHELSEA MERCANTILE BANK CORPORATION
1006 Beach Ave, 7th Floor
Vancouver, B.C.
V6E 1T7

NTS 93A/3 and 92P/14

Lat: 52° 01' 00"N
Long: 121° 15' 00"W

by:
Linda Caron, P. Eng.
December, 1999

PROFESSIONAL PROVINCE OF L. J. CARON BRITISH COLUMBIA ENGINEER

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

26,221

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1.0 SUMMARY

This report summarizes the work to date on the Murphy Lake property, describes the results of the 1999 exploration program in detail, and makes recommendations for further work on the property. A $350,000 Phase 1 program consisting of line cutting, geophysics, geology and geochemistry is recommended, followed by a $230,000 Phase 2 program of drilling (in part contingent on the results of the Phase 1 program).

The Murphy Lake property is located about 25 km northeast of Lac La Hache, in Central British Columbia, with excellent year round road access to the property. The property consists of 10 claims, totalling 111 units, held under option by Churchill Resources Ltd.

The property is situated within the central part of the Quesnel Trough, a northwest trending belt of rocks, averaging 30-35 km in width and over 1000 km in length, which represents a regional basin formed at the Triassic continent-margin. The Quesnel Trough hosts numerous alkalic porphyry copper-gold and gold skarn occurrences and is of regional metallogenic importance.

The Triassic sediments and volcanics of the Quesnel Trough comprise the Nicola Group. High-level coeval alkalic intrusives of the Nicola Group are the host to the alkalic suite of porphyry copper gold deposits within the trough, as well as being related to gold skarn mineralization in the calcareous sediments and volcaniclastics. Intruding these rocks are Jurassic to Cretaceous intrusives, such as the Takomkane batholith which occurs on the eastern portion of the Murphy Lake property. Locally, Tertiary volcanics unconformably overlie the older rocks. As is typical of the area, the Murphy Lake property is covered by glacial till and glacio-fluvial deposits that reach considerable thicknesses. Rock exposure is generally quite limited.

Copper-gold porphyry style mineralization is known to occur in vicinity of the property, related to the intrusive phases in the Nicola Group (ie. Tim, Ann). Several important skarn occurrences are also known near the contact of the intrusives (both on and adjacent to the property) within the calcareous rocks of the Nicola Group (ie. Spout Lake, Peach-Melba, Nemrud). In addition, copper mineralization is also known to occur on the property within later intrusive phases (ie. Murphy Lake Cu-Au zone).

A significant amount of previous exploration has been completed on the Murphy Lake property, primarily by Regional Resources and GWR during the period 1993-95. This work included wide spaced IP and ground mag in the northern portion of the property. Geophysics was followed by drilling 7 holes and resulted in the discovery of the Murphy Lake Cu-Au zone, a 30-35 metre wide, steeply dipping zone of copper mineralization grading 0.2-0.3% Cu. The zone was intersected in two holes over a strike length of 115 metres and remains open on strike in both directions, as well as down dip. A major fault marks the western boundary of the mineralized zone, with higher grades immediately east of the bounding fault. The possibility of a western faulted offset to the zone remains untested. Further work on this zone is recommended.

A second area of mineralization on the property is the Nemrud area. More detailed exploration has been done in this area than in the northern portion of the property, including close spaced geophysics (IP, mag), soil sampling and geological mapping. A 20-25 metre thick skarn bed occurs within a limey horizon in the Nicola rock. Bornite mineralization occurs over an area of 600 metres by 100 metres within the skarn, with an average grade of 0.1% Cu, 0.03 g/t Au and 1 g/t Ag. Twenty diamond drill holes tested the skarn and several IP chargeability anomalies. A number of targets remain untested. One particular target requiring follow-up is an area of epidote-chlorite-magnetite skarn in mafic volcanics, with coincident Au soil geochemistry and a chargeability anomaly situated, about 800 metres northwest of the Nemrud bornite skarn. A second area which requires further work is the hole N95-17 area, where native copper occurs on fractures within andesite, over a width of about 35 metres. A chargeability anomaly is also associated with this zone and remains untested to the southeast.

During November and December, 1999 a program of linecutting, ground geophysics, and reconnaissance geology and geochemistry was completed on the Murphy Lake property. A total of $51,716.61 was spent on the property. This brings the total expenditures on the claims to present to in excess of $645,000.

A two phase exploration program is recommended for the property, with a total budget of $580,000. This work will include additional line cutting, ground geophysics, geology and geochemistry, followed by diamond drilling.

2.0 INTRODUCTION

2.1 Location, Access and Terrain

The Murphy Lake property is located about 25 km northeast of Lac La Hache, in Central British Columbia (see Figure 1). The property is centred at about 52° 01' 00"N latitude and 121° 15' 00"W longitude, on NTS 92P/14 and 93A/3.

Road access to the claims is excellent and year round road access exists within several kilometres of the property. The paved Forest Grove road, which heads northeast from Highway 97 about 3 km north of 100 Mile House is followed for about 22 km. From this point the Bradley Creek (500 rd) and 100 roads are followed north-northwest for a further 34 km. There are numerous secondary roads which provide further access to the property although they are generally not maintained through the winter months.

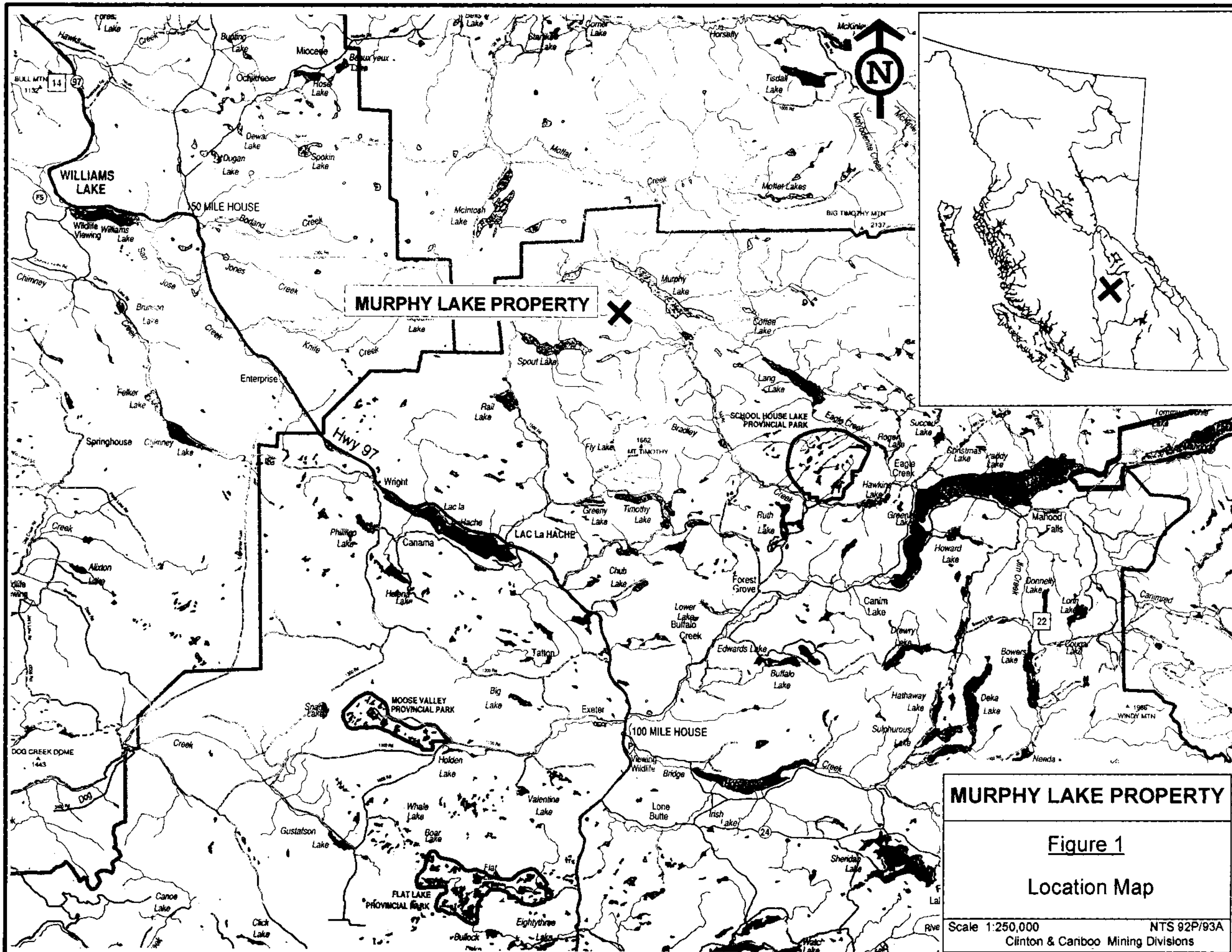
Elevations range from approximately 900 metres near Murphy Lake in the northern portion of the property, to about 1200 metres in the south, near the Nemrud zone. As is typical in the Fraser Plateau, the topography is very subdued with gentle rolling hills and swampy drainages.

The property is generally covered by a thick layer of glacial till, known to exceed 20 metres in thickness in some parts of the claim block. Rock exposure is relatively scarce and is generally restricted to small areas of ice-scoured outcrop. Some 25-30% of the property area has been logged. The remainder of the claims are covered by dominantly lodge pole pine forest, with typically minimal undergrowth. Spruce and fir are confined to lower, swampy areas of the property. Where the ground has been disturbed by road building or logging activity, rock exposure tends to be greater than in forested areas.

The climate is moderate with cold winters and snowfall typically averages 1 - 2 metres. Summer temperatures range up to about 30° C. Water is available for drilling year round from Borthwick Creek, or seasonally from numerous smaller creeks or ponds on the property.

2.2 Property and Ownership

The property consists of 10 claims, totalling 111 units, as listed below and shown on Figure 2. The claims straddle the boundary of map sheets 93A/3E and 3W and 92P/14E and 14W, as well as straddling the boundary between the Cariboo and Clinton Mining Divisions. They are currently held under option by Churchill Resources Ltd.



MURPHY LAKE PROPERTY

Figure 1

Location Map

Scale 1:250,000 NTS 92P/93A

Clinton & Cariboo Mining Divisions

Claim Name	Tenure #	# of Units	Expiry Date	Registered Owner
Ace 1	373558	20	Nov 11, 2001	S. Hodges
Ace 2	373559	20	Nov 10, 2001	W. Markham
TT 1	373560	12	Nov 11, 2001	W. Markham
Riley	373561	20	Nov 11, 2001	W. Markham
TT	374024	20	Nov 28, 2001	S. Hodges
TT 2	374025	15	Nov 27, 2001	W. Markham
TT 3	374026	1	Nov 28, 2001	A. Molnar
TT 4	374027	1	Nov 28, 2001	A. Molnar
TT 5	374028	1	Nov 28, 2001	A. Molnar
TT 6	374029	1	Nov 28, 2001	A. Molnar

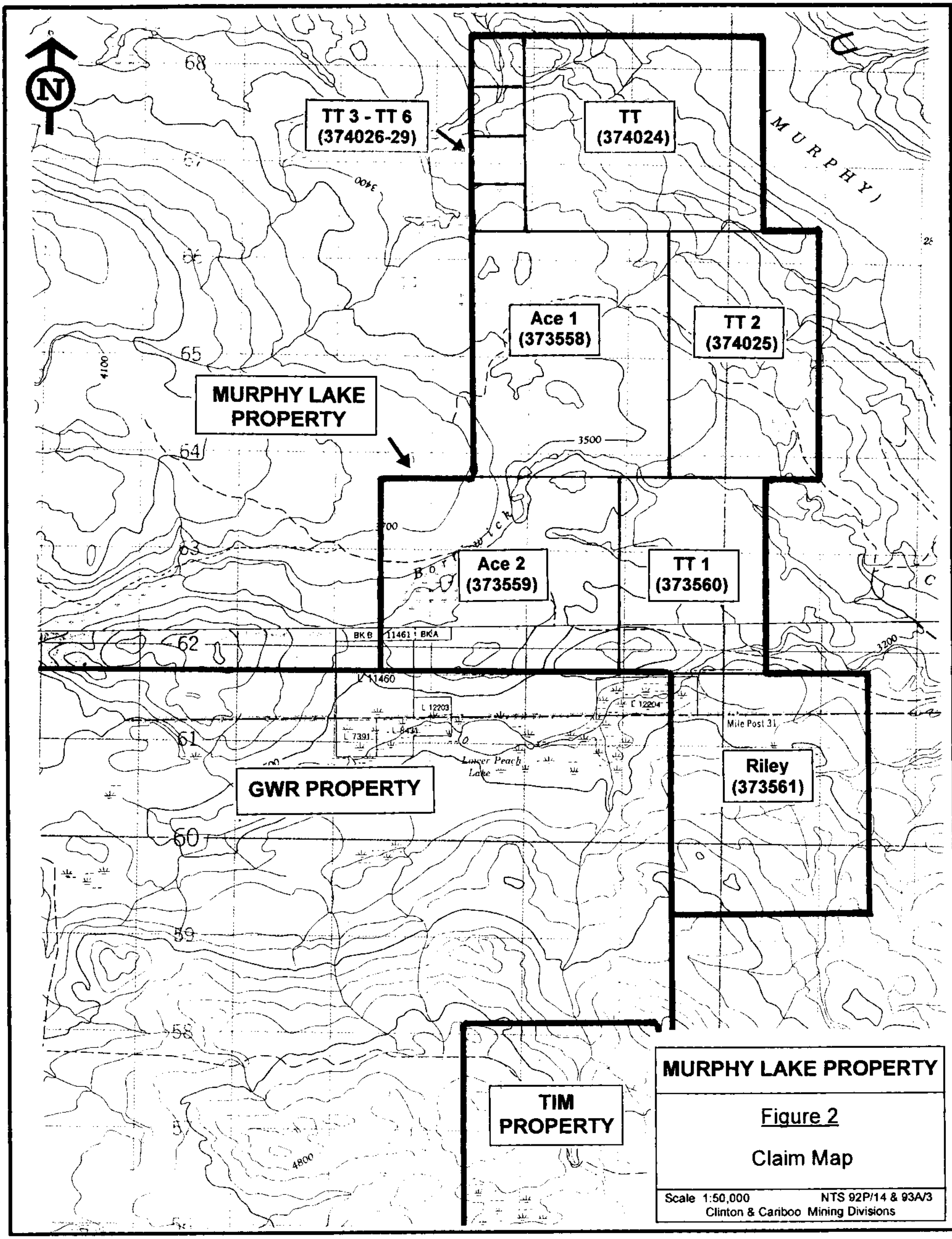
Expiry dates listed are after acceptance of this report.

2.3 History of Exploration

A regional airborne magnetic survey was flown by the Geological Survey of Canada in 1967 and a large annular shaped anomaly was delineated west of Murphy Lake (GSC Maps 5232G, 5234G - see Figure 10). Several years earlier, a similar aeromagnetic anomaly had been defined on Polley Mountain which contributed to the discovery of the Cariboo-Bell (Mt. Polley) alkalic copper-gold porphyry deposit (Hodgson et al, 1976). The Murphy Lake anomaly occurs in the same belt of Nicola rocks which hosts the Cariboo-Bell deposit, and hence attracted the attention of companies exploring for similar alkalic porphyry occurrences. Exploration efforts were mostly directed along the southern boundary of the aeromag anomaly, in the area south of Spout and Peach Lakes, and resulted in the discovery of numerous Cu-Au skarn and porphyry occurrences.

The first work recorded in the area of the current Murphy Lake property was a limited program of geology, geochemistry and ground geophysics by Cyprus Exploration in 1969 (Assessment Report 2370). This was followed by a significant exploration program between 1971 and 1973 by Amax Potash Ltd. Most of this work was completed to the southwest of the Murphy Lake property (on the current GWR claims) and included the discovery of the Tim showing and the WC (Spout Lake) copper-magnetite skarn. Figure 4 shows the location of these discoveries relative to the Murphy Lake property. Amax's work did include limited mapping in the area of the Murphy Lake property (Gagne et al, 1989). Craigmont Mines Ltd. completed follow-up to Amax's work in 1973, including further drilling on the WC occurrence.

Work continued on the current GWR property through the early 1980's, including a program of soil sampling by BP Selco, and further testing of the Tim showings by Stallion Resources. Reserves of 75,000 tonnes averaging 2.15% Cu and 12 g/t Ag were reported for the Tim (Minfile 092P 034). During this time, reconnaissance work by Guichon Explorco Ltd. was also done. Follow-up prospecting of this work by prospectors Neils Kriberg and Don Fuller resulted in the discovery of the Miracle-Discovery showing, with grab samples from trenches at the showing returning over 50 g/t Au (Gagne et al, 1989).



MURPHY LAKE PROPERTY

Figure 2

Claim Map

Scale 1:50,000 NTS 92P/14 & 93A/3
Clinton & Cariboo Mining Divisions

In 1988 the Murphy Lake property area was covered by an airborne VLF-EM and magnetometer survey by Tide Resources Ltd. (Gagne et al, 1989). A mag high was identified in an area underlain by Nicola rocks (on the current TT-1 claim) which was believed to indicate the presence of a magnetic rich alkalic intrusion. A number of VLF-EM conductors were also identified in this area, which was recommended as a high priority for follow-up work.

Between 1987 and 1993 GWR Resources Inc. acquired a large land package in the area (by staking and by various option agreements) and completed drilling on the Spout Lake and Miracle occurrences. Drill indicated reserves of 554,000 tonnes grading 1.8% Cu and 0.17 g/t Au were reported for the Spout Lake copper-magnetite skarn (Minfile 092P 120). In 1993, Regional Resources staked additional ground to cover the newly discovered Nemrud bornite skarn, and formed a joint venture with GWR to explore the large block of ground covered by GWR and themselves (covering the current GWR and Murphy Lake properties).

Significant exploration programs were completed by the Joint Venture in 1993, 94 and 95. Work completed by the Joint Venture is described by von Guttenberg (1994, 1995, 1996 a, b, c and d), Cornock et al (1995), Klit et al (1994a, 1994b) and by various company news releases. The focus of the 1993 work was on ground south of Spout Lake, although reconnaissance geological and geochemical surveys were completed over the Murphy Lake property and an area of anomalous copper in monzonite was identified. A grid was established over the Nemrud zone, and geophysical (mag and IP), geochemical and geological surveys were completed. A number of anomalous areas were defined by this work (von Guttenberg 1994, 1995).

A major exploration program was done during 1995, with support from the Explore BC Program. Approximately 4600 metres of drilling was completed in six different parts of the property (including the Murphy Lake and Nemrud which form part of the present Murphy Lake property). Additional geophysical surveys and geological mapping were also completed.

A further 27 km of IP was done on wide spaced lines over the TT-1 and TT-2 claims (on the current Murphy Lake property). A number of IP chargeability anomalies were detected which were tested with 7 diamond drill holes (ML95-01 to -07), totalling 1146 metres. Drill holes are shown on Figure 5. Results of this work were encouraging, with a steeply dipping zone 30-35 m wide grading 0.2-0.3 % copper intersected in 2 holes spaced 115 metres apart (named the Murphy Lake Copper-Gold zone). A higher grade "footwall" zone returned 0.4 - 1.1% Cu over widths of up to 10 metres. The zone is tested by 2 holes and to a depth of 50 metres. It has a faulted western contact, is open on strike and at depth. There has been no exploration for a possible western faulted offset of the mineralized zone.

Work during 1995 was also done on the East Zone (Peach Melba) and on the Ann Claims on the current GWR property. At the East Zone, an 80 metre wide, steeply dipping zone of low grade copper-gold mineralization was identified (0.2% Cu, 0.13 g/t Au over 112 m core length). *Drilling on the Ann claims, returned a number of intersections with good gold grades (ie. ddh* A94-1: 12 m @ 1.2 g/t Au, 6 m @ 2.93 g/t Au, 18 m @ 0.7 g/t Au, 3.8 m @ 11.4 g/t Au, 2.6 m @ 3.6 g/t Au).

Twenty-two holes were drilled on the Nemrud bornite skarn (on the Riley claim of the current Murphy Lake property) in 1994 and 1995. Drilling delineated a 20-25 metre thick skarn bed, over a 600 x 100 metre area, which averaged 0.1% Cu, 0.03 g/t Au and 1 g/t Ag. The skarn remains open on strike and down dip. In addition, several other areas of interest were identified nearby, which require follow-up. Total expenditures by the Joint Venture (from 1993 - 1995) on the ground which comprises the current Murphy Lake property are reported at approximately $595,000.

During 1996 Regional Resources underwent re-organization to form Silvertip Mining Corp, and the option on the Lac La Hache properties was not maintained. GWR has continued to work the southern block of ground, including a 4 hole drill program on the Ann and Dora claims in 1998. The company has recently released information that it is drilling the 12th hole of a winter 1999-2000 drill program on the Ann and Dora claims, however no results of this work have been released to date.

The property was optioned to Churchill Resources in late 1999 and the work program described in this report was completed. In 1999, a total of $51,716.61 was spent on the property. This brings the total expenditures on the claims to present to in excess of $645,000.

2.4 Summary of Current Work Program

During November and December, 1999 a program of linecutting, ground geophysics, and reconnaissance geology and geochemistry was completed on the Murphy Lake property. Field work was done under contract to Rio Minerals Ltd. A total of 47 kilometres of flagged and picketed grid was established on the TT, TT-2, TT-3, TT-4, TT-5 and Ace 1 claims.

Coast Mountain Geological was contracted by Rio Minerals to complete ground geophysics mag and VLF-EM surveys over the grid. Geophysical maps and interpretations have been provided by Chris Basil of Coast Mountain Geological and are included in Appendix 1.

A total of eight man days was spent doing reconnaissance prospecting, rock and silt sampling. Five silt samples were collected and submitted for analysis. The reconnaissance work included a property examination by author, Linda Caron. The property was largely under snow cover during the time of this examination and this report is based largely on a compilation of available literature, supplemented by limited observations in the field.

3.0 GEOLOGY AND MINERALIZATION

3.1 Regional Geology

The Murphy Lake property is situated within the central part of the Quesnel Trough, within the Quesnellia Terrane. The regional geology of the general area is described by Campbell and Tipper (1972), Panteleyev et al (1996), Bailey (1990) and numerous others and is shown in Figure 3.

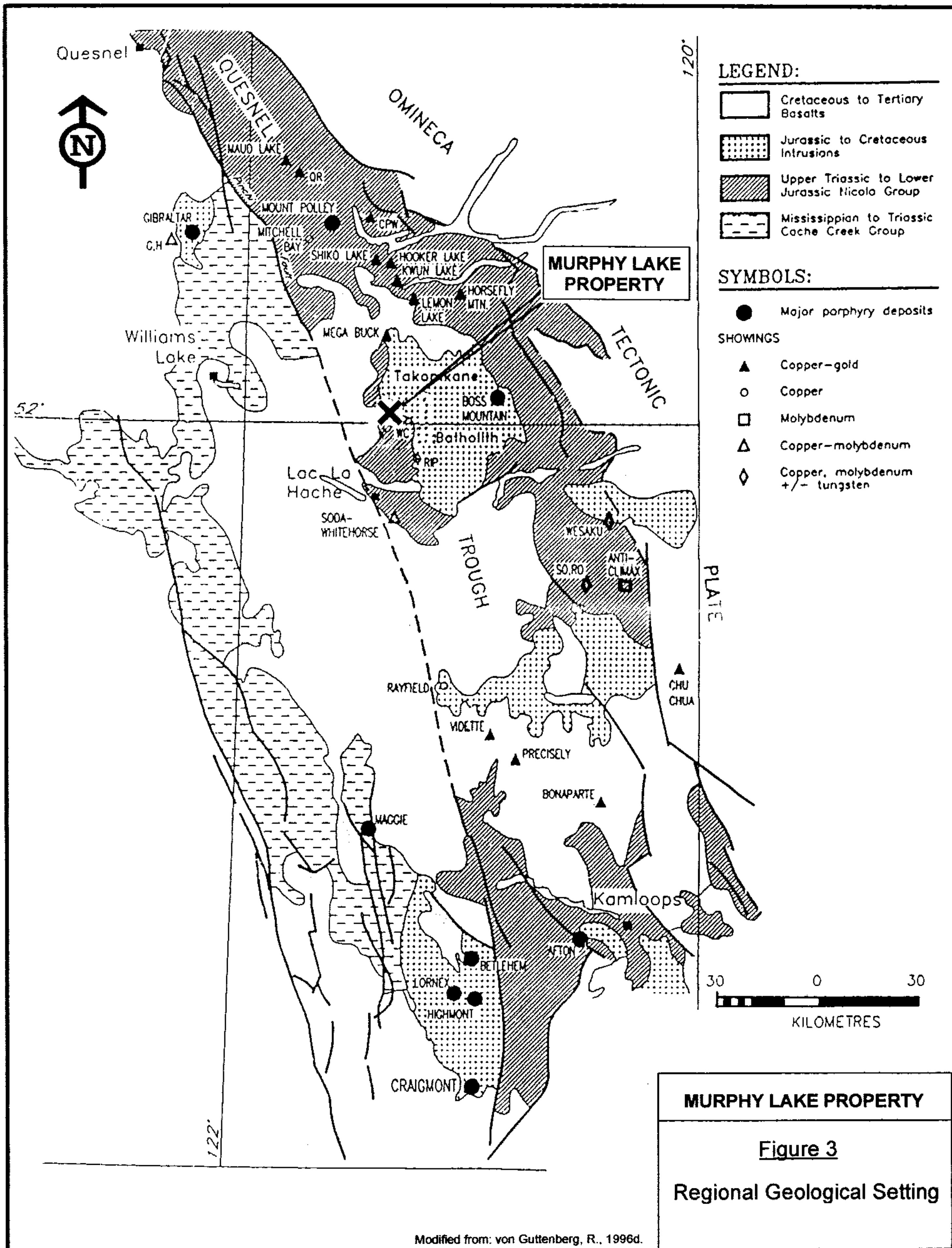
The Quesnel Trough is a northwest trending belt of rocks, averaging 30-35 km in width and over 1000 km in length, which represents a regional basin formed at the Triassic continent-margin. Infilling of the basin, first by Triassic sediments, and then by Triassic to Jurassic arc related volcanics (and coeval intrusives) formed the Quesnel Trough. The western boundary of the Quesnel Trough with the Cache Creek Terrane, is marked by the high angle, strike slip Pinchi fault system some 20 km west of the Murphy Lake property. To the east, Quesnellia rocks are thrust over the Omineca Belt by the Eureka Thrust. The Quesnel Trough, which extends from northern Washington State to north-central British Columbia, hosts numerous alkalic porphyry copper-gold and gold skarn occurrences and is of regional metallogenic importance.

The Triassic sediments and volcanics (and coeval intrusives) of the Quesnel Trough comprise the Nicola Group, and have a total thickness in the order of 7 km. The basal sedimentary sequence consists of shale, argillite, phyllite, siltstone and limestone. These are overlain by subaqueous (and lesser subaerial) alkalic volcanics, deposited along a series of coalescing volcanic centres. The volcanic sequence includes olivine and pyroxene bearing flows, breccias and tuffs, as well as calcarerous tuffs and volcaniclastic sandstone and breccia. Many of the volcanic centres have cores of high-level coeval alkalic intrusives of syenite, monzonite and diorite compositions. These intrusions are the host to the alkalic suite of porphyry copper gold deposits within the trough, as well as being related to gold skarn mineralization in the calcareous sediments and volcaniclastics.

The Triassic-Jurassic rocks are intruded by intrusives of Jurassic to Cretaceous age which range in composition from quartz monzonite - quartz diorite - diorite. Local syenite and gabbro phases also occur. The zoned Takomkane batholith, dated at 193 Ma, belongs to this suite of intrusives. The batholith measures some 50 km in diameter, with its western margin near Murphy Lake on the eastern portion of the Murphy Lake property. The Takomkane batholith is cut by a younger quartz monzonite, host to the Boss Mountain molybdenum deposit situated about 50 km east of Murphy Lake.

Locally, Tertiary volcanics unconformably overlie the older rocks. These volcanics include both Miocene plateau and valley fill basalts as well as Eocene and Oligocene lavas.

The Quesnel Trough is a well mineralized belt, with good potential for gold and copper-gold deposits related to the alkalic volcanics and intrusives of the Nicola Group. Examples of alkalic porphyry copper-gold mineralization in the Trough are the Mt. Polley, Mt. Milligan and Afton-Ajax deposits. The QR deposit represents gold skarn mineralization in calcareous mafic



MURPHY LAKE PROPERTY

Figure 3

Regional Geological Setting

Modified from: von Guttenberg, R., 1996d.

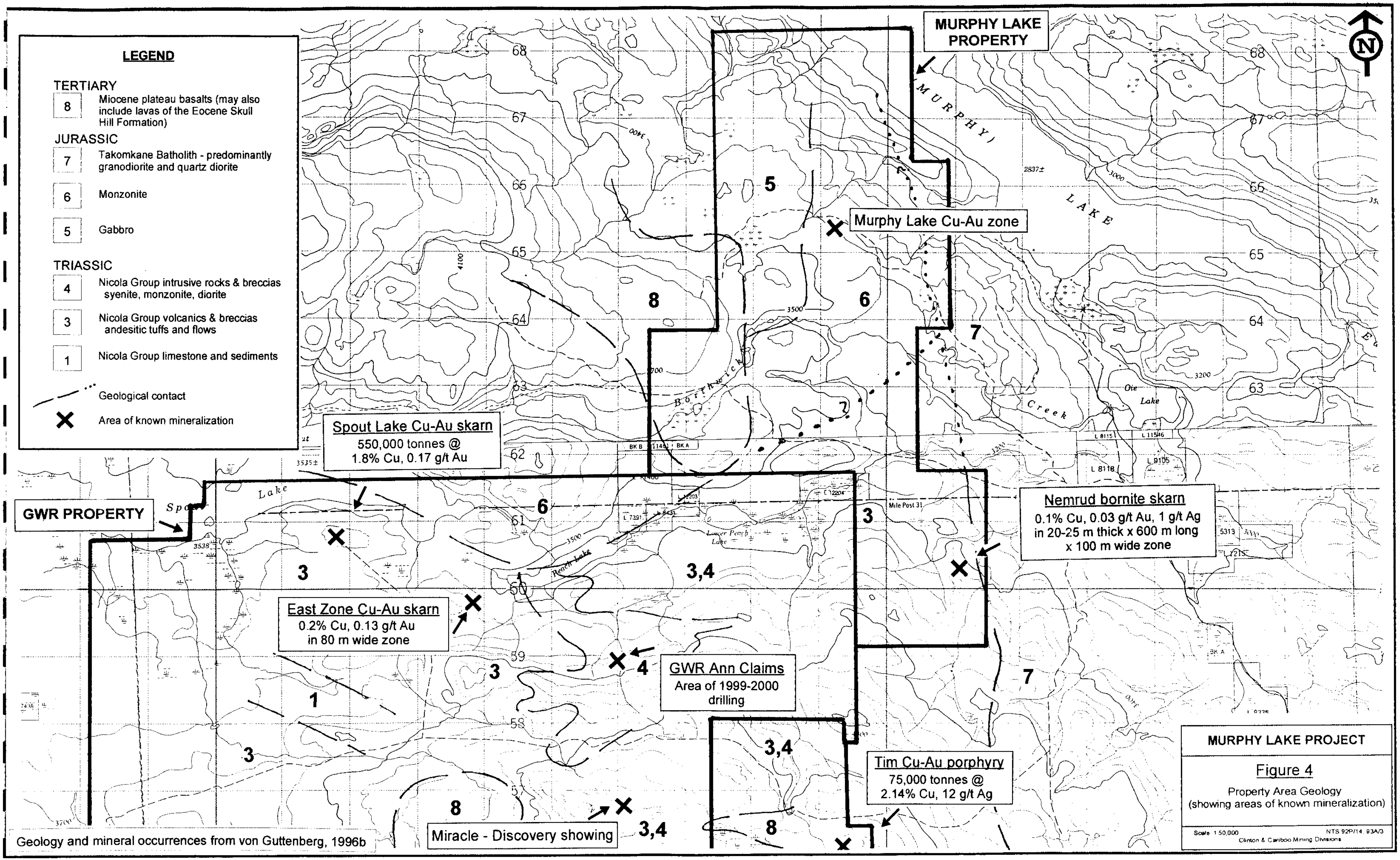
volcanics of the Nicola Group, resulting from the intrusion of an alkalic stock. In addition, there is potential for auriferous gold veins in the basal sediments of the Nicola Group (ie. Frasergold, Spanish Mountain).

The Mt. Polley alkalic copper-gold deposit is located about 60 km northwest of the Murphy Lake Property. It was discovered in 1964, in follow-up to a large aeromagnetic anomaly identified by the 1963 federal-provincial survey of the area. Ore reserves were quoted in 1995 to be 81.5 million tonnes at a grade of 0.3% Cu and 0.414 g/t Au, within a larger geological resource of 230 million tonnes averaging 0.25% Cu and 0.34 g/t Au. The deposit is situated primarily within the Polley intrusive complex, a 4.5 x 5 km syn-volcanic intrusive within sediments and volcanics of the Nicola Group. The intrusive complex consists of multiple phases, ranging from diorite to porphyry to monzonite. Intrusive and hydrothermal breccia phases in the stock are common and are good hosts for mineralization. Mineralization occurs as disseminations within breccia matrixes and as veins. The core of the deposit is comprised of a chalcopyrite-magnetite-bornite assemblage, which passes outwards into magnetite-pyrite-chalcopyrite. Potassic alteration is associated with the core of the deposit, with extensive propylitic alteration surrounding the core (Fraser et al, 1995; Pantelyev et al, 1996; Hodgson et al, 1976).

The QR gold skarn deposit, situated about 70 km northwest of the Murphy Lake Property, was discovered in 1975 in follow-up to geochemical dispersion anomalies in glacial till. A mineable reserve of 1.3 million tonnes grading 4.7 g/t Au was reported for the deposit in 1995. Mineralization is hosted in propylitically altered and epidote-chlorite skarned pyritic, calcareous mafic volcaniclastics of the Nicola Group and is related to the intrusion of the QR stock. The QR stock measures about 1 x 1.5 km in size and is similar in age (or slightly younger) than the volcanics which it intrudes. It consists of a diorite margin surrounding a core of monzonite and lesser syenite. The mineralized skarn halo extends outwards from the stock for up to 300 metres (Fox and Cameron, 1995; Fox et al, 1987; Pantelyev et al, 1996).

3.2 Property Geology

Very little information is available regarding the detailed geology of the Murphy Lake property. The limited information available is no doubt at least partially the result of the scarce outcrop on the property, although little time seems to have been spent mapping outcrop that does exist. Somewhat more detailed information is available for the Nemrud area and for the area southwest of the claims, on ground held by GWR. This information is helpful in understanding the local geology. As discussed in Section 5 of this report, the geophysical data collected during this program poses questions regarding the previous geological interpretation. Further geological mapping and examination of available drill core is recommended to provide a better geological picture of the property and to provide a better understanding as to the meaning of the geophysical responses. Figure 4 is a compilation of information, primarily from von Guttenberg (1996b), and shows the geology and zones of known mineralization both on the Murphy Lake property and in the general vicinity of the claims. The following discussion is based largely on information in von Guttenberg (1994, 1995, 1996a, b, c, d), Gagne and Woods (1989), various Minfile descriptions, and on limited observations from a property examination by the author.



LEGEND
TERTIARY
8 Miocene plateau basalts (may also include lavas of the Eocene Skull Hill Formation)
JURASSIC
7 Takomkane Batholith - predominantly granodiorite and quartz diorite
6 Monzonite
5 Gabbro
TRIASSIC
4 Nicola Group intrusive rocks & breccias syenite, monzonite, diorite
3 Nicola Group volcanics & breccias andesitic tuffs and flows
1 Nicola Group limestone and sediments
Geological contact
Area of known mineralization
MURPHY LAKE PROPERTY
GWR PROPERTY
Murphy Lake Cu-Au zone
Spout Lake Cu-Au skarn
550,000 tonnes @ 1.8% Cu, 0.17 g/t Au
Nemrud bornite skarn
0.1% Cu, 0.03 g/t Au, 1 g/t Ag in 20-25 m thick x 600 m long x 100 m wide zone
East Zone Cu-Au skarn
0.2% Cu, 0.13 g/t Au in 80 m wide zone
GWR Ann Claims
Area of 1999-2000 drilling
Tim Cu-Au porphyry
75,000 tonnes @ 2.14% Cu, 12 g/t Ag
Miracle - Discovery showing
Geology and mineral occurrences from von Guttenberg, 1996b
MURPHY LAKE PROJECT
Figure 4
Property Area Geology (showing areas of known mineralization)

In the extreme western portion of the GWR ground, a small area of limestone and sediments occurs, believed to represent part of the basal Triassic Nicola Group sediments. Overlying these sediments is a thick sequence of andesitic tuffs and flows of the Triassic Nicola Group. The volcanics are exposed in the southern portion of the Murphy Lake property, and on the adjoining ground to the west. Intruding these volcanics are coeval syenite, diorite and monzonite plugs and dykes. Textures of the volcanics and syn-volcanic intrusives are often similar, contacts indistinct and identification difficult.

Copper-gold porphyry style mineralization (ie. Mt. Polley type) is known to occur in the Murphy Lake area, related to the intrusive phases in the Nicola Group. At the Tim occurrence disseminated and fracture controlled chalcopyrite, pyrite and bornite occur in Nicola volcanics near syenodiorite dykes. Reserves of about 75,000 tonnes grading 2.14% Cu and 12 g/t Ag are reported. On the Ann and Dora claims, GWR is currently drilling a zone of porphyry style mineralization in propylitic and potassic altered monzodiorite although no results of the drill program have been released to date.

Previous workers have indicated that the Nicola rocks are intruded to the north by coarse grained monzonitic - gabbroic intrusions, and have interpreted these intrusives to represent a marginal phase of the Takomkane batholith. An alternate explanation may be that these units represent the results of intense alkali metasomatism (fenitization) of the country rocks, related to an alkalic intrusive complex. This model has been proposed for the Lorraine-Jajay alkalic Cu porphyry deposit in north central B.C. (Mustard, 1997), which shows many similarities to the Murphy Lake property. On the Lorraine property, an annular aeromagnetic anomaly exists, similar to that in the Murphy Lake area, and it has been postulated that this structure is related to a buried alkalic complex. Metasomatism related to the intrusion of the alkalic complex has affected the surrounding rocks, resulting in a core area of pyroxenite, surrounded by a rim of syenite. On the Lorraine property, areas of mineralizaton are concentrated along the aeromag high ring, similar to the situation on the GWR and Murphy Lake properties. The similarity between the Lorraine and the Murphy Lake areas suggest that this model should be considered for the Murphy Lake area.

Several important skarn occurrences are known near the contact of the monzonite and the calcareous rocks of the Nicola Group on the adjoining GWR claims. This contact is not well defined on the Murphy Lake property. At the Spout Lake/WC occurrence, about 5 km east of the Murphy Lake property, magnetite-chalcopyrite skarn occurs in two northwest trending zones immediately south of the monzonite/Nicola contact. The North Zone is a vertical zone up to 660 metres in strike length. The zone ranges from 1.2 to 50 metres in width and extends to a depth of at least 90 metres. A second zone, the South Zone is situated about 200 metres to the south of the North Zone. Chalcopyrite-magnetite-pyrite mineralization is related to garnet-epidote skarning of the volcanics and volcanic sediments. Reserves for the Spout Lake occurrence are quoted at 554,000 tonnes grading 1.8% Cu and 0.17 g/t Au.

A second area of skarn mineralization occurs at the East Zone (Peach Melba) about 2 km east of the Spout Lake occurrence. An 80 metre wide zone grading about 0.2% Cu and 0.13 g/t Au again occurs just south of the monzonite/Nicola contact. This same contact projects to the east across the central portion of the Murphy Lake property. There is good potential for the discovery of further zones of skarn mineralization along intrusive/Nicola.

In addition to developing skarn zones near it's contact, the monzonite intrusion is known to host copper mineralization at the Murphy Lake Cu-Au zone, on the Murphy Lake property. A 30-35 metre wide, steeply dipping zone of copper mineralization was discovered by drilling. The zone graded 0.2-0.3% Cu and was intersected in two holes over a strike length of 115 metres. A more detailed discussion of the zone is given below.

The gabbroic intrusive phase occurs in the northwest portion of the property, both in outcrop and in drill holes. Thicknesses of greater than 100 metres of coarse grained gabbro have been intersected in drill holes (ML 95-06), with local traces of chalcopyrite. Mafic phases of zoned alkalic intrusions represent a good environment for platinum and palladium mineralization, particularly where copper mineralization occurs within such intrusives (ie. Iron Lake, Franklin Camp, Dobbin). Future work on the Murphy Lake property should include testing for platinum and palladium in prospective rocks.

The main body of the Takomkane batholith consists of medium to coarse grained porphyritic quartz monzonite. The western edge of the batholith occurs near the eastern property boundary, with a near north-south contact between the batholith and the older rocks. Skarn mineralization related to the intrusion of the main body of the Takomkane batholith into the Nicola rocks may also occur. As discussed in more detail below, the Nemrud skarn is in calcareous metasediments and metavolcanics of the Nicola Group near the contact with the batholith. A 20-25 metre thick bed, up to 600 metres long by 100 metres wide has been defined by drilling, with an average grade of 0.1% Cu, 0.03 g/t Au and 1 g/t Ag.

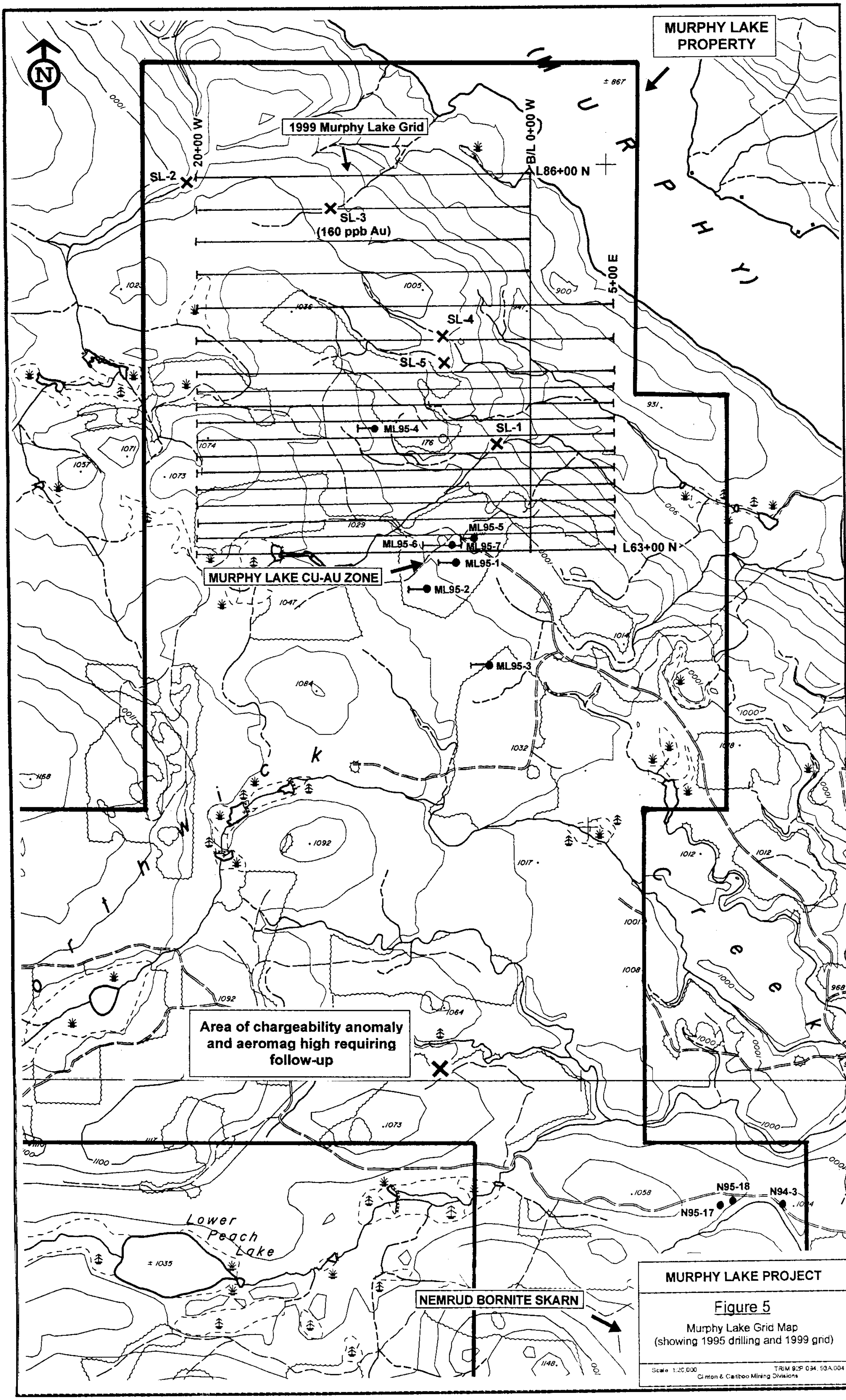
Tertiary lavas unconformably overlie the older rocks in the southeast portion of the Murphy Lake property, as well as in the southern portion of the GWR claims.

The Murphy Lake property is covered by glacial till and glacio-fluvial deposits of varied thickness. Rock exposure is generally quite limited. In the Nemrud area, till is typically less than 3 metres in thickness, while north of this one drill hole intersected 64 meters of glacio-fluvial sediments before encountering bedrock. An understanding of the Quaternary geology of the property, followed by a program of geochemical sampling, would greatly benefit future exploration.

3.2.1 Murphy Lake Copper-Gold Zone (see Figures 4, 5, 6)

Seven holes were drilled on the Murphy Lake property by GWR/Regional Resources in 1995 to test anomalous areas defined by IP and magnetometer surveys (Klit et al, 1994b; von Guttenberg, 1996b). Drill hole locations are shown on Figure 5. Anomalous copper values, from 200 - 400 ppm, are widespread throughout the drilling, however the higher grade zone discovered appears to be associated with a weak chargeability anomaly and corresponding mag low. The lower magnetic response is believed to represent the destruction of primary magnetite in the monzonite during alteration.

Two holes (ML95-01 and ML95-06) intersected a zone of fracture controlled copper mineralization hosted in coarse grained, magnetic monzonite under about 20 metres of overburden (Figure 6). Locally, the monzonite shows moderate potassic alteration.

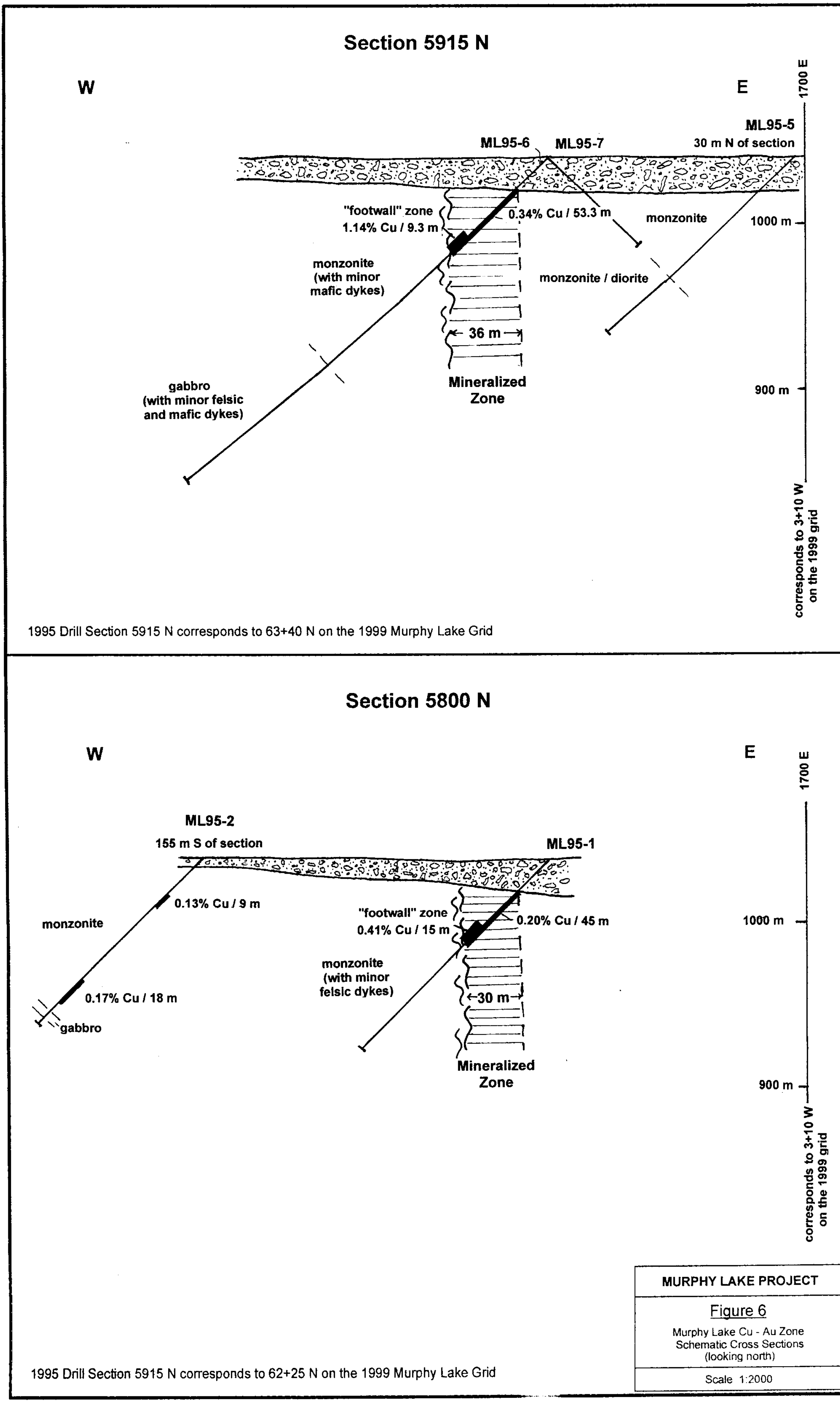


MURPHY LAKE PROJECT

Figure 5

Murphy Lake Grid Map
(showing 1995 drilling and 1999 grid)

Scale 1:20,000 TRIM 92P 034, 93A 004
Clinton & Cariboo Mining Divisions



MURPHY LAKE PROJECT

Figure 6

Murphy Lake Cu - Au Zone
Schematic Cross Sections
(looking north)

Scale 1:2000

Chalcopyrite occurs on steeply dipping hairline fractures in fresh looking monzonite, as blebs within Kspar veins, and less frequently, disseminated. In hole ML95-06, massive chalcopyrite-chlorite-quartz veins up to 10-15 cm were intersected.

Mineralization appears to be confined to a steeply dipping zone, and in both holes that intersected it (115 metres apart on strike) the western limit of mineralization was marked by a strong fault. Grades averaged 0.2-0.3% Cu across a 30-35 metre wide vertically dipping zone, with higher grades in the "footwall" zone. Hole ML95-01 intersected 45 metres of 0.2% Cu, including 0.41% Cu over 15 metres immediately east of the western faulted contact. Hole ML95-06, located 115 metres to the north, returned 0.34% Cu and 0.04 g/t Au over 53 metres. The "footwall" portion of the zone returned 1.14% Cu over 9 metres.

The mineralized zone is open on strike in both directions, as well as at depth below 50 metres. In addition, there is potential to for a western faulted offset to the zone. One hole drilled in the area west of the mineralized zone (ML95-02, located 155 metres south of ML95-01) intersected two zones of low grade copper mineralization, including 0.13% Cu over 9 metres and 0.17% Cu over 18 metres, which supports this possibility.

The 1995 IP survey completed over the Murphy Lake property was done on wide spaced lines (400 metre line spacing). There was a suggestion that the IP anomaly tested by holes ML95-01 and -06 continued to the north beyond the point tested in ML95-06, however the anomaly definition was poor because of the wide line spacing. Previous recommendations for the zone were to extend the grid to the north, beyond the Murphy Lake Cu-Au zone, with close spaced lines, and to complete geophysics (mag, VLF/EM and IP) over this grid extension. In follow-up to this recommendation, the grid has now been extended to the north, with 100 metre spaced lines for 1 km north of the mineralized zone, then 200 metres spaced lines beyond this. Ground mag and VLF/EM surveys have been completed over this grid extension. IP remains to be completed, and it is recommended that the next phase of work on the property include IP over this grid extension.

Detailed geological mapping, prospecting and a program of geochemical sampling are also recommended for the next work program on the property. This will help to further define drill targets aimed at follow-up testing of the Murphy Lake Cu-Au zone.

3.2.2 Nemrud Bornite Skarn (see Figures 4, 7, 8)

The Nemrud zone, discovered in 1993, consists of bornite skarn mineralization developed near the contact of Nicola group volcanics and sediments with the Takomkane batholith. Outcrop is more prevalent in this portion of the property than in the area to the north, and till cover in the Nemrud area is typically less than 3 metres.

Work during 1993 resulted in the identification of an area of bornite mineralization in garnet-diopside and epidote skarn. Most of the copper mineralization seems to be related to skarn developed in remnants of limestone horizons within the Nicola rocks. A strong copper soil anomaly marked the exposed skarn horizon, with values to 4054 ppm Cu. Several significant copper (and lesser gold) anomalies occurred outside the known bornite skarn, and remain unexplained. Weak to moderate chargeability anomalies were identified west, south and north of the outcropping skarn zone (von Guttenberg, 1994 - see Figure 7). The bornite mineralization did not correspond with any significant chargeability anomalies.

Twenty holes were drilled in the Nemrud area (13 on the skarn bed and 7 to test geophysical anomalies) during 1994-95. Drilling delineated a 20-25 metre thick, moderately east dipping skarn zone (Figure 7, 8), some 600 metres in strike by 100 metres in width. An average grade of 0.1% Cu, 0.03 g/t Au and 1 g/t Ag was returned for the zone, with grab samples returning up to 3.57% Cu, 1.26 g/t Au and 82 g/t Ag (von Guttenberg, 1995).

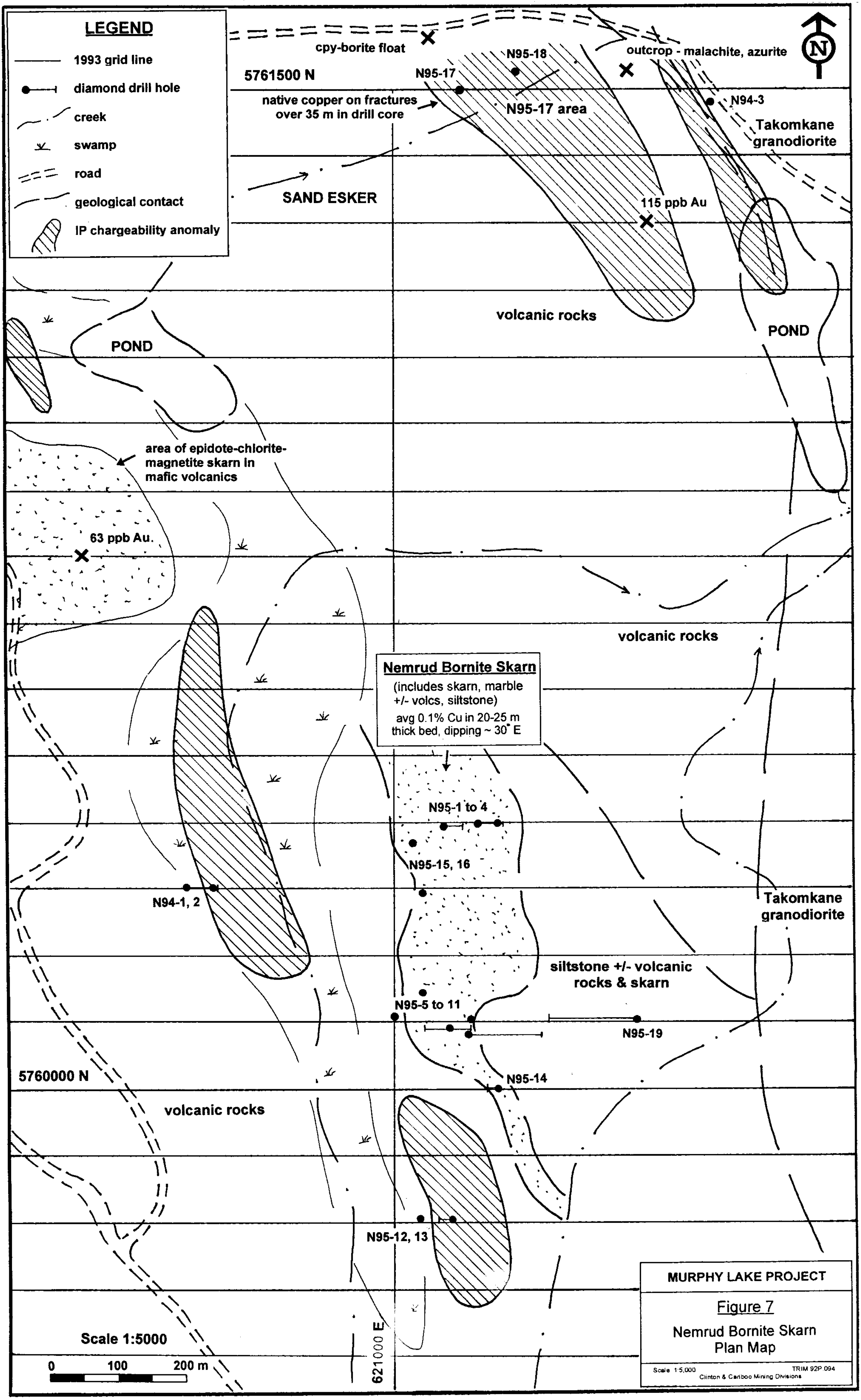
The zone outcrops about 350-400 metres west of the Takomkane intrusive contact and the majority of the drilling tested the zone within about 50 metres of surface. Two holes (N95-11, -19) were drilled to test the zone at depth to the east, as shown in Figure 8. The zone of copper skarn mineralization continued to the east at depth towards the intrusive contact, with hole N95-11 returning 0.1% Cu across 45.3 metres. Hole N95-19 tested the skarn approximately 100 metres down dip from this intercept, confirming the presence of the skarn horizon, but with copper values much lower than to the west.

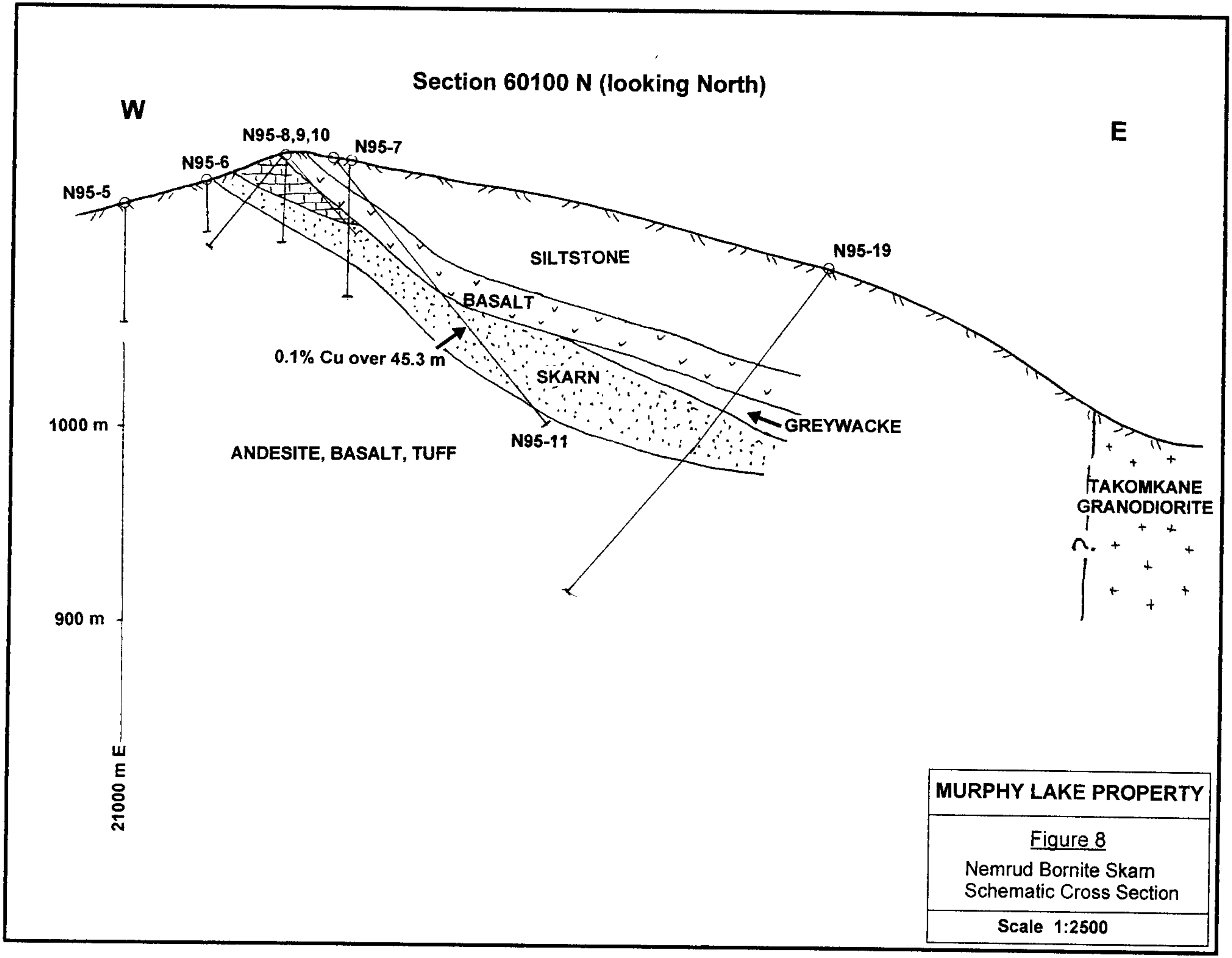
Typically in skarn deposits, calc-silicate alteration has a strong stratigraphic control, as is seen with the east dipping skarn bed at the Nemrud. Mineralization is not, as a rule however, uniformly distributed within the skarn. This is well illustrated in Figure 9. A cross section through the Main Zone at QR shows a thick unit of epidote skarn, with gold mineralization concentrated along the skarn front. A similar scenario occurs at the West Zone at QR (also illustrated in Figure 9). Exploration of the Nemrud skarn has been relatively tight spaced, near surface drilling of one particular stratigraphic horizon. Skarn alteration is known to extend east of the area of close spaced drilling (as intersected in N95-11, 19) as well as to the north and south on strike.

Other targets in the Nemrud area

Mafic volcanic skarn zone (Figure 7)

The Nemrud bornite skarn horizon has been eroded away west of its surface expression. As a result, exploration, which largely targeted this particular horizon, has been primarily to the east of the surface exposure. An area of strong epidote-chlorite-magnetite skarn was identified in mafic volcanics about 800 metres to the northwest of the Nemrud zone, marking skarn alteration in an underlying volcanic horizon (see Figure 7). A gold soil anomaly (to 62 ppb) coincides with the mafic volcanic skarn, as well as a N-NW trending chargeability anomaly (von Guttenberg, 1994). The chargeability anomaly was drilled 600 - 1200 metres to the south by holes N94-1, -2 and N95-12, -13, and was explained by the presence of disseminated pyrite in the mafic volcanics. The combination of epidote-chlorite-magnetite skarn, with pyrite and with anomalous gold is a characteristic of the mineralization at the QR skarn deposit. Further testing of this area, particularly the northern portion of the chargeability anomaly, is recommended. Detailed mapping and rock chip sampling should initially be done. Favourable areas could be tested by trenching, if till cover is thin enough, or by drilling.


LEGEND
1993 grid line
diamond drill hole
creek
swamp
road
geological contact
IP chargeability anomaly
cpy-borite float
N95-18
outcrop - malachite, azurite
5761500 N
N95-17
N94-3
native copper on fractures
over 35 m in drill core
N95-17 area
Takomkane
granodiorite
SAND ESKER
115 ppb Au
volcanic rocks
POND
POND
area of epidote-chlorite-
magnetite skarn in
mafic volcanics
63 ppb Au.
volcanic rocks
Nemrud Bornite Skarn
(includes skarn, marble
+/- volcs, siltstone)
avg 0.1% Cu in 20-25 m
thick bed, dipping ~ 30° E
N95-1 to 4
N95-15, 16
N94-1, 2
Takomkane
granodiorite
siltstone +/- volcanic
rocks & skarn
N95-5 to 11
N95-19
N95-14
5760000 N
volcanic rocks
N95-12, 13
Scale 1:5000
0
100
200 m
621000 E
MURPHY LAKE PROJECT
Figure 7
Nemrud Bornite Skarn
Plan Map
Scale 1:5,000
TRIM 92P 094
Clinton & Cariboo Mining Divisions



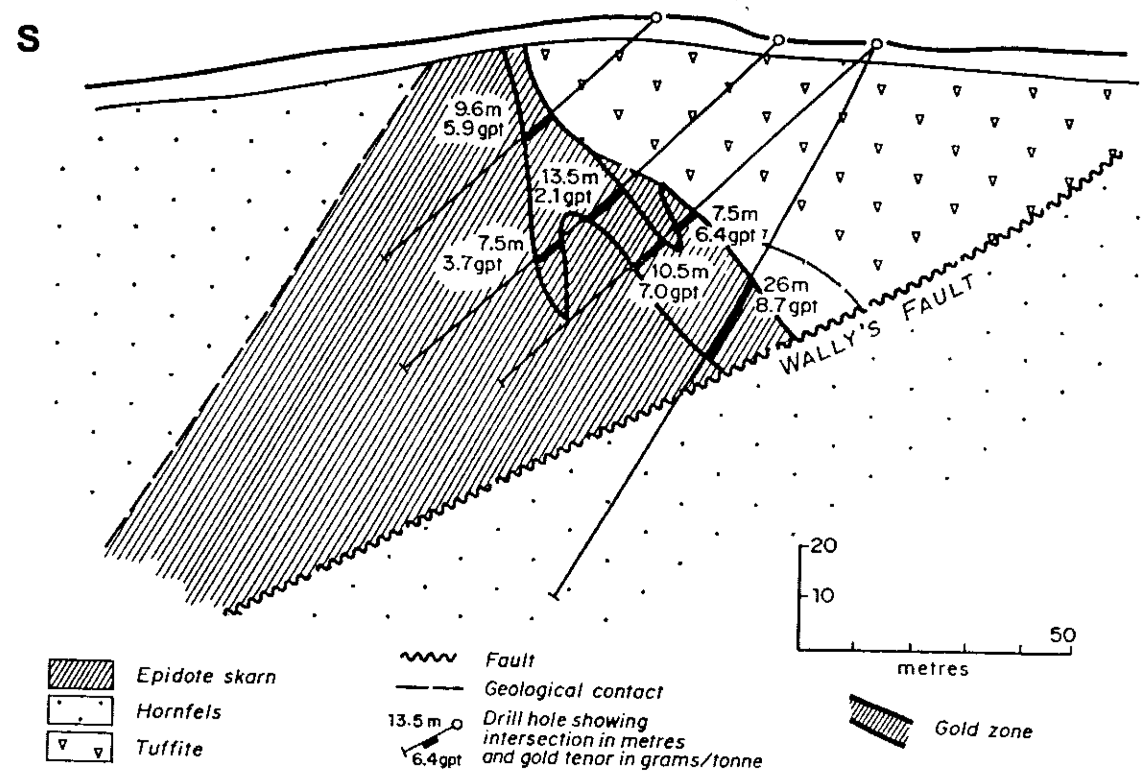
MURPHY LAKE PROPERTY

Figure 8

Nemrud Bornite Skarn
Schematic Cross Section

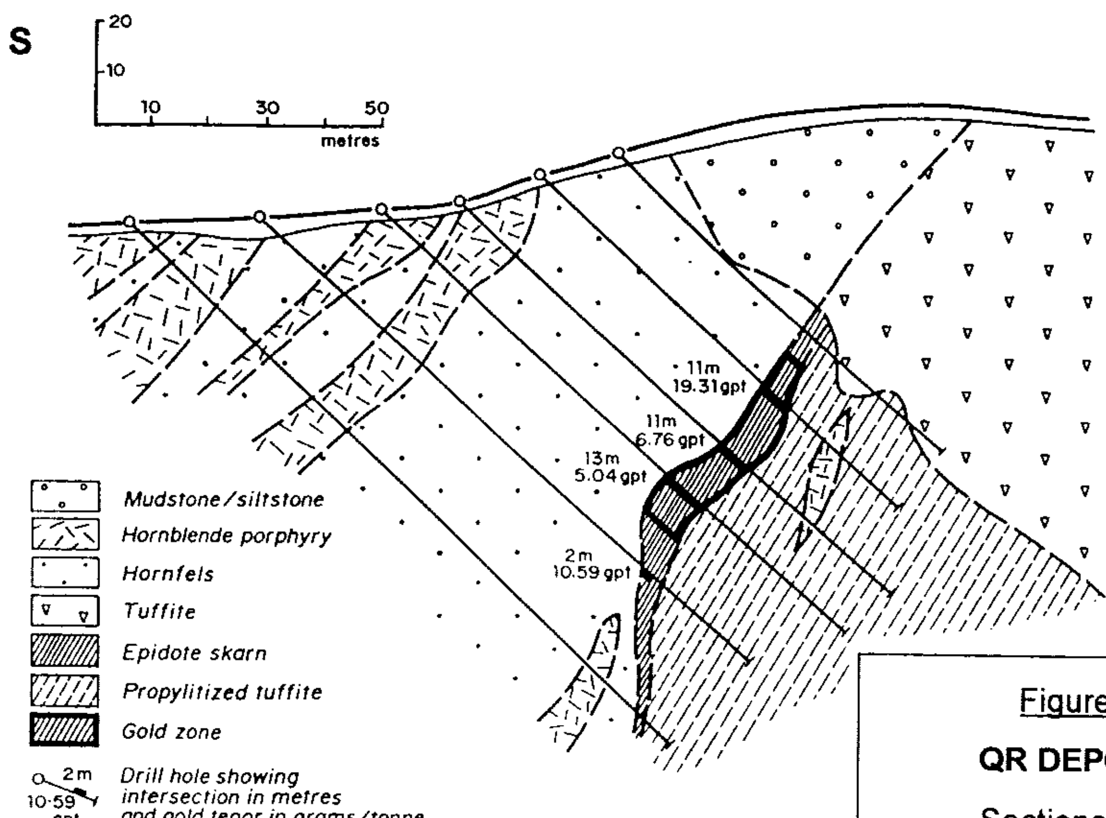
Scale 1:2500

Cross Section (looking west) through the Main Zone



from: Fox and Cameron (1995).

Cross Section (looking west) through the West Zone



from: Fox and Cameron (1995).

Figure 9

QR DEPOSIT

Sectional view
Main & West Zones

Hole N95-17 Area (Figure 7)

Two holes were drilled on a separate target, some 1100 metres to the north of the Nemrud zone, to test a weak porphyry-style IP anomaly. Hole N95-17 intersected native copper on hairline fractures in andesite, over a core length of almost 35 metres. A second hole was drilled about 85 metres to the east, without success, in an attempt to locate a sulfide source for what was interpreted to be supergene copper. The possibility of redbed type copper mineralization in the volcanics should also be considered. A northwest chargeability anomaly is associated with the zone and, although apparently closed off to the north, remains untested to the southeast for several hundred metres. A gold soil anomaly (115 ppb) in this area (von Guttenberg, 1994) suggests that further work may be warranted. Till thickness has increased significantly from the Nemrud area, to about 24-44 metres, although outcrop is known to occur nearby. One outcrop with malachite and azurite staining is noted near hole N95-17, as well as an area of chalcopyrite-bornite float (see Figure 7). While a soil survey was completed over this area, given the thickness of the till, this is may have been ineffective. A program of till sampling in this area may be helpful to identify targets for follow-up drilling.

4.0 PHYSICAL WORK

Forty seven line kilometres of grid was established over the northern portion of the property, as shown in Figure 5. Previous wide spaced IP and follow-up drilling resulted in the discovery of the Murphy Lake Cu-Au zone. The 1999 grid was designed to provide close spaced line coverage in the area north of the mineralized zone for follow-up geophysics.

A north-south trending baseline (0+00W) was run from L63+00N, to L86+00N. East-west cross-lines, 2.5 km in length, were run from 5+00E to 20+00W, with the exception of L86+00N which was only run to the west. From L63+00N to L74+00 N lines were established every 100 metres. From L74+00N to L86+00N, lines are spaced at 200 metre intervals. Lines are marked by flagging, and by pickets marked with metal tags, at 50 metre intervals.

5.0 GEOPHYSICS

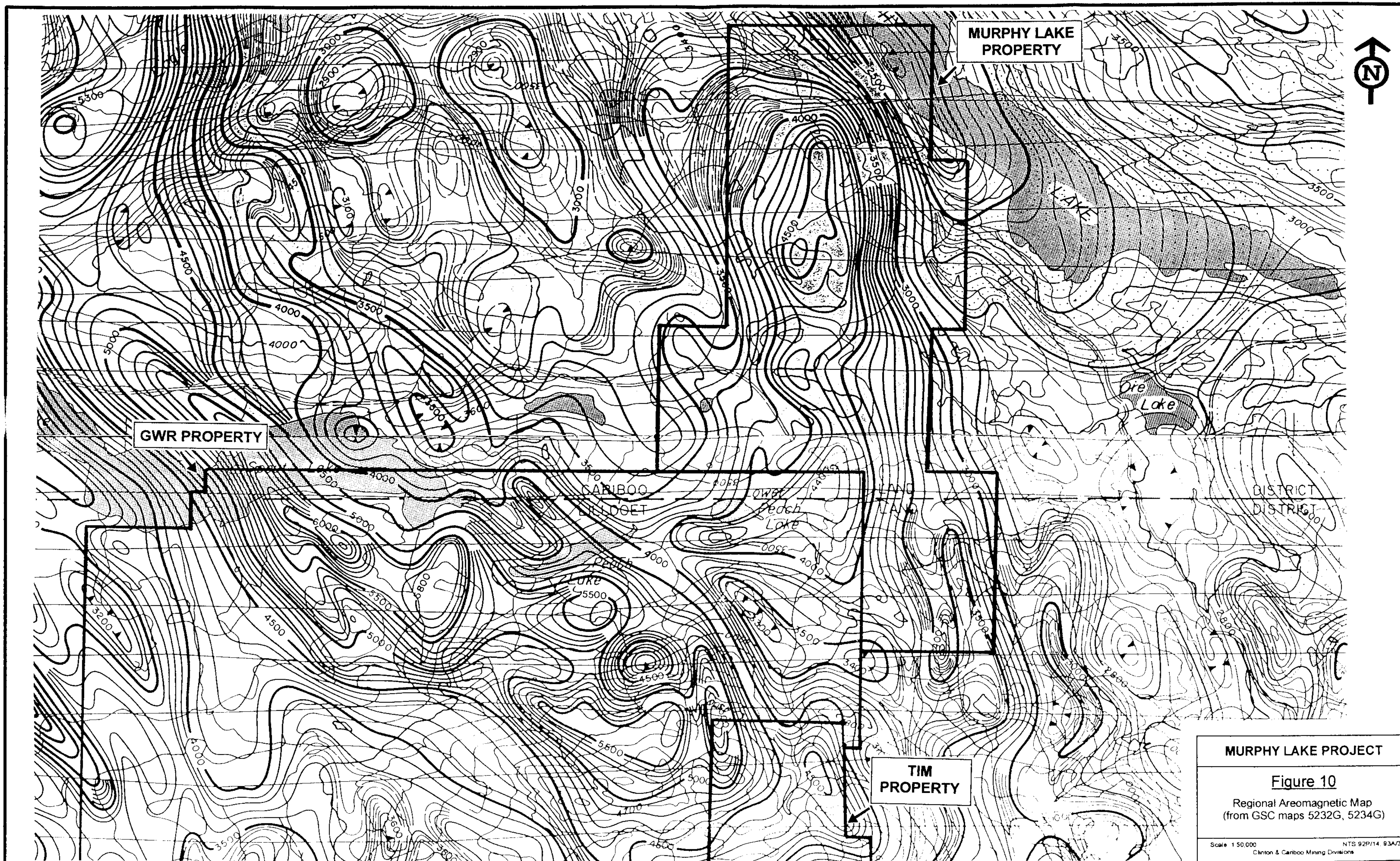
A regional airborne magnetic survey was flown by the Geological Survey of Canada in 1967 and a large annular shaped anomaly was delineated west of Murphy Lake as shown in Figure 10. Several years earlier, an aeromagnetic anomaly had been defined on Polley Mountain which contributed to the discovery of the Cariboo-Bell (Mt. Polley) alkalic copper-gold porphyry deposit. The Murphy Lake anomaly occurs in the same belt of Nicola rocks and hence attracted the attention of companies exploring for similar alkalic porphyry occurrences. The majority of the exploration to date has been directed along the southern boundary of the aeromag anomaly, in the area south of Spout and Peach Lakes. Numerous Cu-Au skarn and porphyry occurrences have been identified in the area. The broad magnetic highs defined by the regional aeromagnetic survey have been interpreted to represent Nicola volcanics, with the circular magnetic low representing a satellite Takomkane monzonite intrusive. As discussed earlier, an alternate hypothesis is that the aeromagnetic anomaly has resulted from intense alkali metasomatism related to the intrusion of an alkalic intrusive complex, as has been proposed for the Lorraine Cu porphyry in north central B.C.

Previous geophysical programs on the property have included ground mag and IP surveys. In the Nemrud area, geophysics was completed on 100 metre spaced lines. Several chargeability anomalies remain to be followed up, in the N95-17 area and the mafic volcanic skarn area northwest of the Nemrud zone (Figure 7). These targets have been discussed in more detail in the previous section.

In the Murphy Lake grid area, previous geophysics was completed on a 400 metre line spacing (Cornock et al, 1995). Resistivity data showed a sharp east-west boundary across the property, which is believed to mark the contact of the Nicola volcanics with the monzonite and gabbro intrusions to the north (see Figure 4). North of this boundary, a chargeability anomaly and corresponding mag high was tested by drilling and resulted in the discovery of the Murphy Lake Cu-Au zone.

In the southern portion of the grid, in the area underlain by rocks of the Nicola Group, a second area of high chargeability was defined. The location of this anomaly is shown on Figure 5. No follow-up has been done in this area. The anomaly is particularly interesting because of its proximity to the N95-17 area and to the mafic volcanic skarn area northwest of the Nemrud. It is of further interest because it corresponds to the area where a mag high was defined by Tide Resources' aeromag survey (Gagne et al, 1988). This anomaly was believed to indicate the presence of a magnetic rich alkalic intrusion. A number of VLF-EM conductors were also identified in this area, which was recommended as a high priority for follow-up work, however none seems to have been done. It is recommended that the 1999 grid be extended to the south to cover this area, and that ground mag and VLF surveys be completed over the grid extension. IP should then be run over the southern portion of the grid.

During the current program, a total of 47 line kilometres of ground magnetometer and VLF/EM surveys were completed by by Coast Mountain Geological. Data was collected over the entire grid, with the exception of L86+00 N. Appendix 1 contains a report discussing the results of the survey, by geophysicist, Chris Basil. Raw data and plotted results are also included in Appendix 1.



MURPHY LAKE PROJECT

Figure 10

Regional Areomagnetic Map
(from GSC maps 5232G, 5234G)

Scale 1:50,000 NTS 92P/14, 93A/3
Clinton & Cariboo Mining Divisions

The data shows a prominent NNE trending mag high feature in the southeast quadrant of the grid. This area has been described by previous workers as being underlain by a large monzonite unit. As discussed by Basil (see Appendix 1) the magnetic response is more typical of what one would expect for the Nicola Group than for a monzonite, and poses questions regarding the geological interpretation in this area. It may well be that the extent of the Nicola Group rocks on the property is greater than has been described by previous workers. It would be useful to compare the magnetic response on the Murphy Lake property to that on the Lorraine property, to see whether it supports the postulated model of alkali metasomatism (fenitization).

A prominent 320° trending mag low and corresponding VLF/EM anomaly cuts the area of higher magnetic response. This feature is parallel to the Takomkane batholith contact (defined by a strong mag low in the NE portion of the grid) and is believed to represent a regional fault. Basil recommends further testing of this structure, including a recce MaxMin EM survey. Several smaller subparallel VLF-EM anomalies were also defined by the data.

It is recommended that the next phase of work on the property include a complete digital compilation of geophysics (mag, VLF/EM and IP) over the property. Previous surveys should be accurately tied in to surveys completed on the 1999 grid. The 1999 grid should be extended, with 100 metre line spacing, to the south (far enough to cover targets in the Nemrud area) and to the east to cover the contact with the Takomkane batholith. Ground mag and VLF/EM surveys should be completed over the grid extension, and IP should be done in prospective areas, as identified by geophysics, geology and geochemistry. A recce MaxMin EM survey should be completed over the strong VLF/EM anomaly defined by the 1999 work.

6.0 GEOCHEMISTRY

A number of silt samples were collected from the Murphy Lake property during Nov-Dec 1999, however because of the high organic content of most samples, only five were suitable for analysis. Samples were shipped to Bondar Clegg (ITS) labs in Vancouver for preparation and analysis. Analytical procedure involved sieving samples to -80 mesh and analyzing for gold (30 gm Fire Assay - AA) and 34 element ICP. Sample locations are shown on Figure 5 and analytical results are included in Appendix 2.

The low, swampy drainages on the property with little silt and with very high organic content, coupled with the time of year, made sample collection difficult. One sample (SL3) did return an anomalous gold value of 106 ppb Au. This sample was collected from the northern part of the grid, in an area where essentially no previous work has been done. Follow-up prospecting and further geochemical sampling of this area is recommended.

A thick glacial till layer covers the majority of the Murphy Lake property. Standard soil sampling, although somewhat effective on the Nemrud zone where till cover was comparatively thin, is not a suitable method of evaluating the remainder of the property. Possible methods for geochemical testing are:

1. Till sampling
2. Vegetation Sampling - Bark sampling
   Tree top sampling

Detailed discussions of the sampling techniques and merits of each method are given by Levson (1999), Dunn (1999) and Dunn et al (1989) and are summarized briefly below.

For each of these methods, an understanding of the Quaternary geology is essential for proper layout of the survey and for interpretation of results. An air photo study of the property with follow-up field observations will provide basic information such as direction of glacial transport, locations of eskers, rock drumlins, etc. Any geochemical survey should then be designed such that sample spacing is relatively tight perpendicular to the direction of transport, with a wider spacing in the direction of dispersion.

Till sampling provides a method of testing the first derivative of mineralization in bedrock sources. Till sampling, coupled with studies of Quarternary geology, have been highly effective in tracing mineralization to a bedrock source in areas of thick till cover. One particularly successful example of this is the QR deposit, described in detail by Fox et al (1987). To be effective, the basal till (a clay rich, over consolidated, very dense layer) must be sampled. Typically transport distances for the basal till layer are in the order of several 100's of metres, up to a few kilometres, as opposed to the overlying till layer which typically shows much greater transport distances, coupled with a greater degree of sorting and washing. Examination and sampling of pebble to cobble sized rocks in the basal till layer is an effective exploration tool. The main disadvantage to till sampling over other geochemical methods is the time involved collecting good samples in the field. This becomes much easier, however, where there has been ground disturbance by road cuts, etc.

Bark sampling involves collecting the outer bark from a single species of tree, commonly lodge pole pine. It is quick and inexpensive to collect the samples, although more difficult to interpret the results than with traditional till sampling. Anomalous areas identified by vegetation sampling are a further step removed from the bedrock source of mineralization than are anomalous areas of till or soil (ie. breakdown of mineralization in bedrock will result in an anomaly in the till or soil. This anomaly may in turn result in an area of anomalous vegetation - the vegetation anomaly is not directly caused by bedrock mineralization, but results from an intermediate step). With any vegetation sampling technique, it is critical that the same species be sampled. This is difficult to accomplish in areas of widespread logging and where vegetation cover is variable. A further disadvantage to this method, for platinum/palladium analyses, is that the standard analytical procedure which involves ashing the samples to 470°C) is inadequate. It is necessary to ash samples to 870°C, which in most labs is not a normal procedure. For these reasons, bark sampling is not recommended as the best choice for providing geochemical coverage of the Murphy Lake property.

A second possibility for vegetation sampling involves sampling tree tops from a helicopter. A case study of Douglas fir top sampling at the QR deposit was effective in identifying an anomalous area down ice of the Main Zone. There was no anomaly over the deposit however, as opposed to till sampling which could trace the anomaly up ice to the bedrock source (Dunne et at, 1989; Fox et al, 1987). The general disadvantages of vegetation sampling, discussed above, apply to tree top sampling. Furthermore, the fact that this technique is not done on the ground is an added draw back. All observations made on the ground add to the geological picture and can aid in proper interpretation.

Till sampling is recommended as the most suitable method of providing geochemical coverage for the Murphy Lake property. The widespread logging on the property, coupled with the numerous low swampy areas with distinctive vegetation, does not provide a consistent environment for vegetation sampling. Furthermore, till sampling has the advantage of identifying anomalies more directly related to the bedrock source than vegetation sampling. Because of the extensive road network on the property, the difficulty in obtaining basal till samples (the main disadvantage to this method) will be minimized.

Further silt sampling is recommended, although it must be recognized that anomalous results in silts may be indicating an area of anomalous till, which will be displaced from the bedrock source. An understanding of the Quaternary geology will aid in interpretation of silt results.

As discussed in Section 3, the mafic phases of the zoned intrusives have potential to host platinum and palladium mineralization. It is recommended that any silt or till samples collected by analyses for 34 element ICP, for gold, and for platinum and palladium. Where rocks prospective for PGE mineralization are sampled, in outcrop, till boulders or in drill core, the analytical procedure should include platinum and palladium analyses.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

This report describes the results of a $51,716.61 program of line cutting, geophysics and recce geology and geochemistry on the Murphy Lake property, as well as providing a compilation of previous work on the property. Total expenditures on the claims to present exceeds $645,000.

The claims are situated within a highly prospective area for copper-gold porphyry or skarn mineralization. Two areas of mineralization are known to occur on the property, the Murphy Lake Cu-Au zone and the Nemrud bornite skarn. Both these areas require further work. In addition, a number of geophysical targets remain untested and a large geologically prospective portion of the claim block remains unexplored.

The Murphy Lake Cu-Au zone is a 30-35 metre wide, steeply dipping zone of copper mineralization grading 0.2-0.3% Cu discovered by drill testing of an IP chargeability anomaly. The zone has been intersected in two holes over a strike length of 115 metres and remains open on strike in both directions, as well as down dip. A major fault marks the western boundary of the mineralized zone, with higher grades immediately east of the bounding fault (including 0.41% Cu over 15 m and 1.14% Cu over 9 m). The possibility of a western faulted offset to the zone remains untested. Further work on this zone is recommended. This work includes a close spaced IP survey as well as a program of geological mapping and geochemical (till) sampling. Drilling is then recommended to further test the zone.

In the Nemrud area, a 20-25 metre thick skarn bed occurs within a limey horizon in the Nicola rocks. Bornite mineralization occurs over an area of 600 metres by 100 metres within the skarn, with an average grade of 0.1% Cu, 0.03 g/t Au and 1 g/t Ag. A number of targets remain untested. One particular target requiring follow-up is an area of epidote-chlorite-magnetite skarn in mafic volcanics, with coincident Au soil geochemistry and chargeability anomaly situated about 800 metres northwest of the Nemrud bornite skarn. A second area that requires further work is the hole N95-17 area, where native copper occurs on fractures within andesite, over a width of about 35 metres. The chargeability anomaly related to this zone remains untested to the southeast.

A third area requiring follow-up is the southern portion of the TT-1 claim in an area underlain by rocks of the Nicola Group. An aeromagnetic survey delineated a mag anomaly in this area and the anomaly was believed to indicate the presence of a magnetic rich alkalic intrusion. A number of VLF-EM conductors were also identified in this area. Furthermore, a chargeability anomaly was defined by wide spaced IP. Although recommended by previous workers, no follow-up has been done in this area. It is recommended that the 1999 grid be extended to the south to cover this area, and that ground mag and VLF surveys be completed over the grid extension. A till sampling program should cover this area. IP should be run on close spaced lines over the southern portion of the grid with follow-up drilling contingent on the results of this work.

Additionally, the possibility exists for platinum and palladium mineralization in the mafic phases of the zoned intrusives. No previous testing has been done for platinum group elements on the property. It is recommended that any geochemical analyses of till and silt samples and of prospective rocks include platinum and palladium.

Recommendations

A two phase follow-up work program is recommended, as detailed below. Phase 1 ($350,000) consists of further line cutting and geophysics, as well as geological mapping and geochemistry. Phase 2 ($230,000) will consist of drill testing prospective areas defined by the Phase 1 program and will be in part contingent on the results of the Phase 1 program.

A total Phase 1 + Phase 2 budget of $580,000 is proposed. All costs listed are inclusive of GST.

Phase 1: ($350,000)

1. Extend the existing grid to the south in order to cover the projected monzonite/Nicola contact, the Nicola/Takomkane contact, and the area underlain by rocks of the Nicola Group. The grid should extend south to cover targets requiring follow-up in the Nemrud area. A total of approximately 130 line km of new grid (100 m line spacing) should be established.

2. Complete a digital compilation of geophysics (mag, VLF/EM and IP) over the property. Accurately tie in the Regional Resources grid with the 1999 grid.

3. Complete ground mag and VLF/EM surveys over the grid extension, where necessary to provide complete coverage (est 130 line km).

4. Undertake a study of the Quaternary geology of the property, through air photo interpretation coupled with field observations, to provide the framework for planning a program of till sampling.

5. Complete detailed geological mapping and prospecting of the property, including rock sampling of bedrock and mineralized boulders in till. Do further silt sampling where possible.

6. Complete a preliminary till sampling program and carry out detailed prospecting up ice of anomalous areas. Follow-up preliminary till sampling with infill sampling where necessary.

7. Do IP over prospective areas identified by geophysics, geology and geochemistry (est 80 km) and complete a recce MaxMin EM survey over strong VLF/EM anomalies.

Phase 1 Budget:

Linecutting	130 km @ $550/km	$ 71,500
Geophysics		
	130 km mag/VLF @ $430/km	55,900
	80 km IP @ $1400/km	112,000
	recce MaxMin EM	8,000
Geology (including bedrock mapping, Quaternary geology study, prospecting and data compilation)		45,000
Geochemistry (silt and till sampling collection + analysis)		35,000
Report		6,000
	Subtotal:	$333,400
Management fee (5%)		$ 16,600
	PHASE 1 TOTAL:	**$ 350,000**

Phase 2: ($230,000)

1. Drill test targets defined by Phase 1 (est 10 holes, totalling 2000 metres).

Phase 2 Budget:

Drilling	2000 metres @ $80/m	$ 160,000
Geology (core logging)		25,000
Geochemistry (core sampling and analysis)		25,000
Report		9,000
	Subtotal:	$ 219,000
Management fee (5%)		$ 11,000
	PHASE 2 TOTAL:	**$ 230,000**

TOTAL PHASE 1+ PHASE 2: $ 580,000

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APPENDIX 1

GEOPHYSICAL REPORT
including Figures G-1, G-2

by Chris Basil, Coast Mountain Geological

GEOPHYSICAL SURVEY APPENDIX
MURPHY LAKE PROJECT

Introduction:

In December of 1999 a geophysical program was conducted on the Murphy Lake Project. The survey encompassed a 5.25 square kilometer area and contained 40 line kilometers of grid. An EDA combined Total Field Magnetometer / VLF-EM field unit in conjunction with a Total Field Base Station was employed for the survey.

The survey area lies at the northern end of a Regional Aeromagnetic feature, which extends from Lower Peach Lake in the south, northwards to Murphy Lake. This high magnetic feature is flanked to the east by the lower, and more subdued magnetics of the Takomkane Batholith.

The survey density employed was 100 meter line separations in the south, and 200 meter line separations in the north, with data collected at 25 meter intervals along the lines.

Total Magnetic Field Intensity: Figure G-1a

The Total Magnetic Field Intensity values encountered on the Murphy Lake property varied considerably. The field intensity ranged over 9,600 nT, from 52,165 nT to 61,794 nT, with an approximate mean value of 56,800 nT.

The highest magnetics strike through the grid in a NNE direction. This feature exhibits a pod-like, discontinuous nature with numerous local dipole anomalies. It is up to 600 meters wide in the south and becomes narrower and increasingly discontinuous to the north. This indicates significant variation in the magnetic mineral composition of this unit and may also reflect variable alteration. This effect becomes more pronounced in the northeast, near the suspected contact with the Takomkane Batholith (intense low magnetic feature). This type of magnetic response is typical of a complex volcanic unit, such as the mineral rich and highly prospective Nicola Group rocks. As the Nicola Group volcanic and intrusive unit has been mapped on the southern portion of the property, a program combining a re-examination of drill core and detailed mapping is highly recommended to test this geophysical interpretation.

Flanking the high magnetics feature to the west and northwest is a region of similar magnetic response, however significantly subdued in comparison. This reduced amplitude response may represent a change in lithology or, more likely, a deepening of glacial till cover.

Cross-cutting the high magnetics is a narrow, 320 degree striking mag low. This carries through the entire surveyed area from L6300N / 175E to L8400N / 1075W. A likely interpretation is a fault. This is parallel to the intense mag low (L7800N / 475E through L8400N / 275E) at the suspected edge of the Takomkane Batholith, and may be part of a regional structural feature.

VLF-EM Survey: Figure G-2a

The VLF-EM transmitting station at Jim Creek, Washington was utilized for this survey, as it provided optimum coupling for the orientation of the grid. The Inphase, Quadrature (Out of phase) and non-leveled Field strength components were measured.

The VLF-EM response across the southern portion of the survey area delineated several, weak, NNE trending, 300 to 400 meter long features. This "fabric" may represent bedding or foliation within this unit. It is also noted that these features are coincident with local, mag low lineaments.

The central and west-central region of the survey exhibits a relatively weak to flat response, perhaps reflecting greater till cover (as also observed with the lower amplitude magnetic response).

Along the grid-transecting mag-low feature discussed above, the survey delineated a coincident VLF-EM anomaly (L8400N / 1000W to L7400N / 425W, and L7000N / 175W to L6900N / 125W). This anomaly is characterized by an up to 50% peak to peak Inphase response, with a reverse quadrature response. This coincident anomaly strengthens the fault / regional structure interpretation and should be investigated with a more advanced EM system.

Further evidence of the fault /regional structure interpretation is seen to the west and northeast of this dominant feature. There are several VLF-EM anomalies, parallel or subparallel to the above anomaly, such as; L8400N / 625W through L8000N / 525W, L8000N / 975W through L7800N / 850W, L7400N / 800W through L7000N / 525W and L6600N / 1950W through L6300N / 1625W.

Geophysical Recommendations:

1) Expand Mag/VLF survey to the east to further define the contact with the Takomkane Batholith.
2) Perform a reconnaissance MaxMin-EM survey over the strongest VLF-EM responses, in particular the coincident low mag / VLF lineament.
3) Expand the Mag/VLF survey to the south to encompass the known mineral showings.
4) Merge existing reconnaissance IP with present data and extend and infill over target areas.

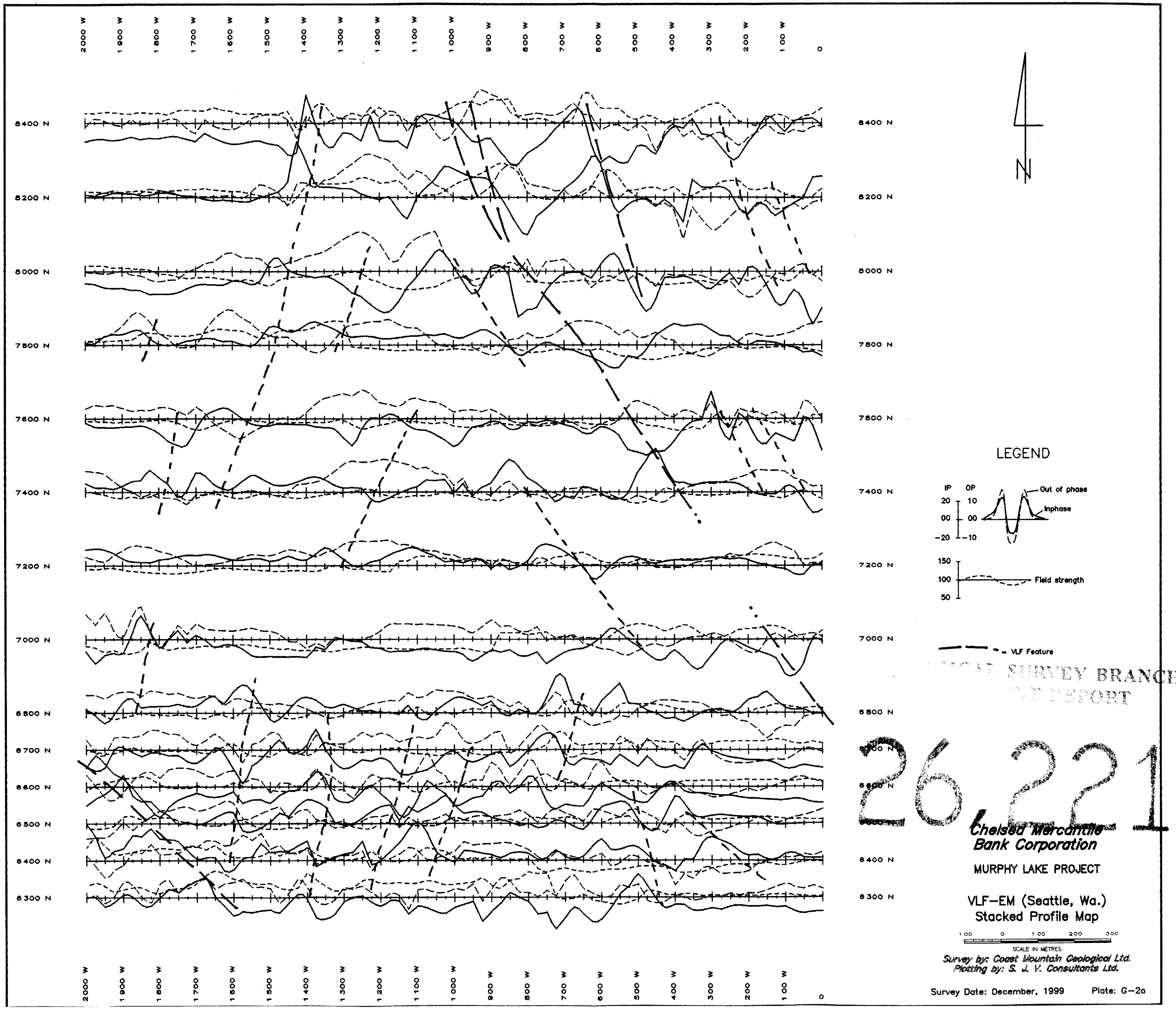
STATEMENT OF QUALIFICATIONS

I, CHRISTOPHER MARK BASIL, of 2117 Graveley Street, Vancouver British Columbia, DO HEREBY CERTIFY:

1) That I have been employed by Coast Mountain Geological Ltd. since 1988 as a Geophysical Operator and Project Manager.
2) That I majored in Physics at McGill University, Montreal Quebec from 1977 to 1981.
3) That I completed the Advanced Prospecting Course through Malaspina College.
4) That I have been practicing my profession of mineral exploration consultant and geophysical operator for 18 years.
5) That the information, conclusions and recommendations contained in this report are based on personal work on the property during 1999, and a review of pertinent literature.

Dated at Vancouver, British Columbia this 1st day of March, 2000.

Christopher Basil
Vice President, Coast Mountain Geological Ltd.


2000 W
1900 W
1800 W
1700 W
1600 W
1500 W
1400 W
1300 W
1200 W
1100 W
1000 W
900 W
800 W
700 W
600 W
500 W
400 W
300 W
200 W
100 W
0
8400 N
8200 N
8000 N
7800 N
7600 N
7400 N
7200 N
7000 N
6800 N
6700 N
6600 N
6500 N
6400 N
6300 N
N
LEGEND
IP
OP
20
10
00
00
-20
-10
Out of phase
Inphase
150
100
50
Field strength
VLF Feature
SURVEY BRANCH
26,221
Chelsea Mercantile Bank Corporation
MURPHY LAKE PROJECT
VLF-EM (Seattle, Wa.)
Stacked Profile Map
100
0
100
200
300
SCALE IN METRES
Survey by: Coast Mountain Geological Ltd.
Plotting by: S. J. V. Consultants Ltd.
Survey Date: December, 1999
Plate: G-2a

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6300	-2000	55285.4	6300	-2000	0.3	-0.5	130
6300	-1975	54917.4	6300	-1975	0	1.5	140.4
6300	-1950	55037.8	6300	-1950	-10	-3.2	130.5
6300	-1925	54977.9	6300	-1925	-5.5	0.8	115.3
6300	-1900	55314.1	6300	-1900	2.7	8.5	121.2
6300	-1875	55621.7	6300	-1875	0.8	6.5	127.1
6300	-1850	55573.4	6300	-1850	-8	0.3	126.6
6300	-1825	56210.2	6300	-1825	-8.9	-2.6	115.4
6300	-1800	57454.1	6300	-1800	-0.1	7.5	110.5
6300	-1775	55536.8	6300	-1775	8.9	9.2	122.8
6300	-1750	56085.8	6300	-1750	5.4	2.9	123.9
6300	-1725	55983	6300	-1725	12.5	7	123.8
6300	-1700	55690.9	6300	-1700	17.9	9	138.4
6300	-1675	55276.6	6300	-1675	21.2	10.2	160.1
6300	-1650	55147.4	6300	-1650	0.5	4.4	171.9
6300	-1625	55577.8	6300	-1625	-9.4	7.3	163.7
6300	-1600	56539.5	6300	-1600	-19.8	8.1	149.6
6300	-1575	56685.8	6300	-1575	-15.5	9.9	142.5
6300	-1550	56418.9	6300	-1550	-16.5	5.5	138.1
6300	-1525	57167.9	6300	-1525	-14.4	5.9	135.7
6300	-1500	56837.5	6300	-1500	-13.3	4.8	137.9
6300	-1475	56797	6300	-1475	-16.4	-3.1	125.1
6300	-1450	56350.7	6300	-1450	-6.1	2.5	121.1
6300	-1425	55695.8	6300	-1425	3.3	9.8	125.5
6300	-1400	55050.1	6300	-1400	-1.8	5.4	164.8
6300	-1375	55590.6	6300	-1375	-22.2	-2.3	146.8
6300	-1350	55682.2	6300	-1350	-23.7	-3.8	129.9
6300	-1325	56607.8	6300	-1325	-18.5	-1.4	118
6300	-1300	56488.6	6300	-1300	-4.9	5.3	120.9
6300	-1275	56415.1	6300	-1275	-0.6	4.2	126.6
6300	-1250	56389.4	6300	-1250	1.2	6	144.8
6300	-1225	56213.8	6300	-1225	-5.4	2.6	147.7
6300	-1200	55946.6	6300	-1200	-9.3	-0.8	137.6
6300	-1175	56083.6	6300	-1175	-3.5	2.5	137.7
6300	-1150	55758.9	6300	-1150	-4.4	1.1	140.4
6300	-1125	54404.9	6300	-1125	-18.2	-6.4	137.7
6300	-1100	56351.4	6300	-1100	-9.5	4.1	139.1
6300	-1075	56372.4	6300	-1075	-11.5	4.2	145
6300	-1050	56694.3	6300	-1050	-15.8	2.5	141.3
6300	-1025	56854.9	6300	-1025	-17.6	2.7	134.2
6300	-1000	56075.8	6300	-1000	-10.9	4.8	135.8
6300	-975	55985.3	6300	-975	-7.8	3.9	138.5
6300	-950	56693	6300	-950	-4.6	7.2	141
6300	-925	56278.1	6300	-925	-26.1	-2.1	153
6300	-900	56570.4	6300	-900	-15.5	4.9	132
6300	-875	57004	6300	-875	-6.2	10.5	125.1
6300	-850	56477.1	6300	-850	4.7	8.9	146.5
6300	-825	55582.5	6300	-825	-0.4	2.8	150.7
6300	-800	56426.8	6300	-800	-4.6	2.7	168.7
6300	-775	58257.8	6300	-775	-18.2	0.3	164.2

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6300	-750	57371.3	6300	-750	-16.6	3.6	165.9
6300	-725	59881.8	6300	-725	-34.3	0.8	99.32
6300	-700	58387.3	6300	-700	-22.2	8.9	94.2
6300	-675	58217	6300	-675	-10.6	11.8	96.87
6300	-650	56492.2	6300	-650	-18	4.8	108.1
6300	-625	57161.3	6300	-625	-26.2	2.2	92.28
6300	-600	57017.7	6300	-600	-23.8	0.2	87.82
6300	-575	56824.6	6300	-575	-12.1	0.4	82.1
6300	-550	57905.2	6300	-550	3.3	6.7	80.4
6300	-525	55805.1	6300	-525	11.7	5.1	85.38
6300	-500	57542.5	6300	-500	24.7	7	95.55
6300	-475	55559.2	6300	-475	12.3	-1.9	119.3
6300	-450	55530.2	6300	-450	-2.8	-3.2	115.4
6300	-425	55506.9	6300	-425	-11.8	-2.2	107.5
6300	-400	55779.5	6300	-400	-8.2	1	105.1
6300	-375	55891.3	6300	-375	-8.4	0	108.3
6300	-350	56083.7	6300	-350	-14.6	-1.9	109
6300	-325	56595.4	6300	-325	-14.3	-0.9	103.5
6300	-300	56951	6300	-300	-12	0.5	105.4
6300	-275	57268.5	6300	-275	-13.7	0.2	103.9
6300	-250	57356.8	6300	-250	-10.5	1.9	103.4
6300	-225	57285.7	6300	-225	-9.1	1	104.9
6300	-200	57363.4	6300	-200	-10.1	2.1	103.9
6300	-175	57499.3	6300	-175	-10	2.2	104
6300	-150	57498.9	6300	-150	-9.4	3.9	106
6300	-125	57473	6300	-125	-10.7	5.7	107.6
6300	-100	57084.7	6300	-100	-10.2	7.5	107.5
6300	-75	56575.2	6300	-75	-15.1	5.4	106.2
6300	-50	56661.1	6300	-50	-17.5	4.7	103.5
6300	-25	56815.9	6300	-25	-15.8	6.4	102.1
6300	0	56825.6	6300	0	-15.4	4.7	103.6
6300	25	55830					
6300	50	55415.6					
6300	75	55108					
6300	100	55053.2					
6300	125	55233.9					
6300	150	55179.7					
6300	175	55240.9					
6300	200	55609.4					
6300	225	55962.1					
6300	250	56008.2					
6300	275	55765.4					
6300	300	55544.7					
6300	325	55564					
6300	350	56456.9					
6300	375	56432.4					
6300	400	55864.1					
6300	425	55772.9					
6300	450	55562.1					
6300	475	55372.2					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6300	500	55299.1					
6400	-2000	56283.1	6400	-2000	39	2.8	135.1
6400	-1975	55042	6400	-1975	24.7	-3.2	162.5
6400	-1950	55148.4	6400	-1950	2.8	-9.3	139
6400	-1925	55125.1	6400	-1925	10.1	-5.1	118.2
6400	-1900	55511.3	6400	-1900	13.1	-2.3	117.5
6400	-1875	55073.2	6400	-1875	27.2	4.5	123
6400	-1850	55160.6	6400	-1850	25.8	3.9	128.8
6400	-1825	55458.1	6400	-1825	34.5	8.7	127
6400	-1800	54992.4	6400	-1800	23.4	3.2	133.7
6400	-1775	54908.2	6400	-1775	22.4	3.5	131.2
6400	-1750	54808.7	6400	-1750	20.3	3.9	128.7
6400	-1725	54841.6	6400	-1725	10.6	7.4	139.3
6400	-1700	55335.7	6400	-1700	1.4	7.4	138.4
6400	-1675	56078.2	6400	-1675	3.2	10.8	129.3
6400	-1650	55668.2	6400	-1650	3.2	10.6	141.1
6400	-1625	57002.8	6400	-1625	-11.1	8.1	119.1
6400	-1600	57387.5	6400	-1600	-10.3	9.1	108
6400	-1575	57678.9	6400	-1575	2	13.8	107.4
6400	-1550	57734.5	6400	-1550	4	10.9	107.9
6400	-1525	57320.6	6400	-1525	18.4	14.7	112.9
6400	-1500	55595.9	6400	-1500	8.4	6.2	125.6
6400	-1475	57615	6400	-1475	10	8.4	113.1
6400	-1450	56929.7	6400	-1450	10.1	3.8	122.5
6400	-1425	56571.9	6400	-1425	15.7	4.7	117.1
6400	-1400	55283.9	6400	-1400	20.8	6.1	133.9
6400	-1375	56748.1	6400	-1375	-6.5	-2	116.1
6400	-1350	56093.7	6400	-1350	-1.2	0.2	106.1
6400	-1325	55695.3	6400	-1325	3.3	2.1	104.2
6400	-1300	57375.6	6400	-1300	6.7	2.8	101.2
6400	-1275	58536.1	6400	-1275	8.9	3	102.8
6400	-1250	56176.5	6400	-1250	20.9	5.1	107
6400	-1225	52910.4	6400	-1225	-4.6	-5.3	126.2
6400	-1200	57272.4	6400	-1200	0.1	-0.2	103
6400	-1175	56378.4	6400	-1175	9.4	1.1	97.62
6400	-1150	56543.5	6400	-1150	19	3.5	97.99
6400	-1125	56464.8	6400	-1125	32.9	7	99.48
6400	-1100	55669.3	6400	-1100	41.3	5.1	120.8
6400	-1075	55435.5	6400	-1075	29.8	0.3	133.9
6400	-1050	55369.9	6400	-1050	9.2	1.2	129.1
6400	-1025	55535.1	6400	-1025	2.4	3	124.4
6400	-1000	56344.2	6400	-1000	-2	5.1	106.7
6400	-975	56462.9	6400	-975	10.5	10	104.1
6400	-950	56450.9	6400	-950	9.5	8.2	105.2
6400	-925	56518.9	6400	-925	7.5	8.8	104.4
6400	-900	56319.5	6400	-900	6.2	8.9	108.9
6400	-875	56203.7	6400	-875	2.7	9.4	100.7
6400	-850	56576.6	6400	-850	7.4	9.4	101.9
6400	-825	56674.5	6400	-825	9	7.9	103
6400	-800	56651.6	6400	-800	7.7	5.8	103.1

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6400	-775	56931.1	6400	-775	0.9	1.9	78.06
6400	-750	57314.8	6400	-750	2.9	-0.2	68.39
6400	-725	56645.3	6400	-725	11.1	4.7	74.55
6400	-700	56421.7	6400	-700	3.5	2.9	78.09
6400	-675	55980.9	6400	-675	1.2	1.8	72.22
6400	-650	55845.5	6400	-650	4.1	-0.4	69.12
6400	-625	55678.1	6400	-625	14.9	1.8	67.15
6400	-600	55895.6	6400	-600	22.9	3.6	74.39
6400	-575	55630.9	6400	-575	11.5	-2.9	74.5
6400	-550	56017.7	6400	-550	11.6	-1.4	75.54
6400	-525	55972.6	6400	-525	14.9	2.5	78.19
6400	-500	56080.8	6400	-500	14.2	1.8	82.82
6400	-475	55756.8	6400	-475	5.8	-1.2	84.25
6400	-450	55897	6400	-450	-3	-0.7	83.53
6400	-425	56353.2	6400	-425	-5.6	-2.8	81.17
6400	-400	56667.4	6400	-400	-11.2	-13.4	70.73
6400	-375	56821.3	6400	-375	1	-7.3	66.08
6400	-350	56331	6400	-350	0.6	-10	67.94
6400	-325	55723	6400	-325	18.8	-4.2	68.06
6400	-300	56436.6	6400	-300	25.2	-4	78.2
6400	-275	57397.1	6400	-275	21.4	-7.3	83.49
6400	-250	57464.1	6400	-250	17.2	-7	88.45
6400	-225	57295.3	6400	-225	9.4	-6.8	89.14
6400	-200	57552.7	6400	-200	5.6	-5.6	89.71
6400	-175	57452.9	6400	-175	6.3	-1.7	89.47
6400	-150	57620.1	6400	-150	1.2	-0.3	93.57
6400	-125	58162.5	6400	-125	1.3	0.9	88.19
6400	-100	58420.2	6400	-100	7.2	1.6	86.32
6400	-75	58492.5	6400	-75	7.9	1.7	91.91
6400	-50	58398	6400	-50	2.7	3.4	96.67
6400	-25	58135.9	6400	-25	2.3	2.7	97.39
6400	0	57569.9	6400	0	2.7	4.6	97.29
6400	25	56677.3					
6400	50	55830					
6400	75	55415.6					
6400	100	55108					
6400	125	55053.2					
6400	150	55233.9					
6400	175	55179.7					
6400	200	55240.9					
6400	225	55609.4					
6400	250	55962.1					
6400	275	56008.2					
6400	300	55765.4					
6400	325	55544.7					
6400	350	55564					
6400	375	56456.9					
6400	400	56432.4					
6400	425	55864.1					
6400	450	55772.9					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6400	475	55562.1					
6400	500	55372.2					
6500	-2000	54605.6	6500	-2000	19.5	-8.1	85.84
6500	-1975	54959.7	6500	-1975	26.8	-7.6	85.65
6500	-1950	54870	6500	-1950	31.8	-7.6	86.99
6500	-1925	54395.1	6500	-1925	39.7	-4.3	93.68
6500	-1900	54415.1	6500	-1900	52.1	0.7	117.5
6500	-1875	54826.1	6500	-1875	30.1	-3.6	119.9
6500	-1850	55229.5	6500	-1850	23.9	0.6	111.6
6500	-1825	55324	6500	-1825	23.6	3.7	113.8
6500	-1800	55289.4	6500	-1800	13.9	7	115.6
6500	-1775	55248.4	6500	-1775	8.5	6.8	116.6
6500	-1750	55871.3	6500	-1750	-1.7	8.6	107.4
6500	-1725	55930.4	6500	-1725	1.8	9.1	102.5
6500	-1700	56095.3	6500	-1700	-1.6	6.9	99.91
6500	-1675	55631.5	6500	-1675	1.3	7.8	93.82
6500	-1650	56775.4	6500	-1650	6.4	9.6	94.15
6500	-1625	56256.9	6500	-1625	11.3	12	95.38
6500	-1600	55429	6500	-1600	11.9	11.1	105.9
6500	-1575	55502.3	6500	-1575	-7.9	2.5	109
6500	-1550	56540.4	6500	-1550	-8.7	3	96.96
6500	-1525	56601	6500	-1525	-4.8	5.4	87.02
6500	-1500	57245.6	6500	-1500	1.8	7.5	84.99
6500	-1475	55978.7	6500	-1475	11.3	9.1	84.45
6500	-1450	56883.4	6500	-1450	7.6	2.5	89.19
6500	-1425	56983.6	6500	-1425	18.8	6.5	86.81
6500	-1400	56525.4	6500	-1400	25.8	7.5	89.85
6500	-1375	55486.7	6500	-1375	23.9	2.1	105.3
6500	-1350	55052.6	6500	-1350	18	1.2	110.1
6500	-1325	55914	6500	-1325	1.5	-2.4	103.8
6500	-1300	55605.8	6500	-1300	-1.4	-1.6	105.2
6500	-1275	56060.2	6500	-1275	-0.3	-0.9	90.6
6500	-1250	56094	6500	-1250	5.8	1.5	86.62
6500	-1225	55672.7	6500	-1225	13	3.6	85.84
6500	-1200	55675.9	6500	-1200	17.9	3.8	101.4
6500	-1175	55928.3	6500	-1175	19.9	4.9	101.3
6500	-1150	56578.5	6500	-1150	3.3	-2.1	95.58
6500	-1125	55403.6	6500	-1125	18.2	3.2	97.57
6500	-1100	55206.6	6500	-1100	12.3	0.4	93.46
6500	-1075	56035.2	6500	-1075	17.7	1.5	93.72
6500	-1050	56191.9	6500	-1050	23.5	2.6	93.93
6500	-1025	56230.4	6500	-1025	30.3	4.9	105.9
6500	-1000	55776.5	6500	-1000	19.7	1.2	116
6500	-975	56257.4	6500	-975	10.9	1.9	109.4
6500	-950	56416.1	6500	-950	12.2	3.5	105.1
6500	-925	56807.3	6500	-925	11.7	4.1	105.2
6500	-900	56663.1	6500	-900	6.3	3.7	107.3
6500	-875	57338.6	6500	-875	3.9	4.3	106.9
6500	-850	57666.1	6500	-850	1.4	4.9	111.1
6500	-825	57799.5	6500	-825	-2.7	7.1	102.4

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6500	-800	56582.1	6500	-800	0	4.6	117.2
6500	-775	56004	6500	-775	-4.8	0.8	115.3
6500	-750	56646.1	6500	-750	-2.6	5.1	113.2
6500	-725	56831.4	6500	-725	3.5	7.9	113.2
6500	-700	56931	6500	-700	0.9	5.5	116.6
6500	-675	56599.9	6500	-675	-3.6	3.6	113.5
6500	-650	57979.7	6500	-650	-6.5	1.3	104.3
6500	-625	59326.5	6500	-625	4.6	7.4	100.9
6500	-600	57815.7	6500	-600	17.4	6.9	100.9
6500	-575	57544	6500	-575	20.6	5.1	110.8
6500	-550	56964.8	6500	-550	23.4	3.2	116.2
6500	-525	56640	6500	-525	19.9	3.7	135
6500	-500	56926.9	6500	-500	4	-0.3	135.9
6500	-475	57201.1	6500	-475	-5.5	-3.1	124.9
6500	-450	57896.7	6500	-450	-6.6	-2.8	111.9
6500	-425	57138.1	6500	-425	9.9	-5.2	93.22
6500	-400	57406.4	6500	-400	29.1	1.1	104.5
6500	-375	56937.4	6500	-375	21.4	-2	122.4
6500	-350	56361.5	6500	-350	8.9	-6.4	120.3
6500	-325	56176.3	6500	-325	6.2	-6.6	112.5
6500	-300	56132.4	6500	-300	8.2	-4.4	110
6500	-275	56216.1	6500	-275	9.2	-3.9	110.8
6500	-250	56549	6500	-250	8.3	-2.1	112.5
6500	-225	57044.3	6500	-225	7.4	-0.4	114.2
6500	-200	57389.6	6500	-200	7.2	0.5	114.5
6500	-175	57589.2	6500	-175	7.3	3.5	115.6
6500	-150	57487.3	6500	-150	2.9	3.5	119
6500	-125	57197.4	6500	-125	-0.9	0.6	115.6
6500	-100	57009.3	6500	-100	-1.1	1.9	113.2
6500	-75	56859.2	6500	-75	-0.5	3.6	112
6500	-50	56938	6500	-50	-0.2	4.4	111.6
6500	-25	57160.6	6500	-25	0	5.9	110.7
6500	0	57303	6500	0	0.4	7.7	111.3
6500	25	56960.7					
6500	50	56505.7					
6500	75	55821.6					
6500	100	55264.8					
6500	125	55046					
6500	150	55046.8					
6500	175	55172.7					
6500	200	55185.8					
6500	225	55362.4					
6500	250	55327.7					
6500	275	54953.9					
6500	300	54090.7					
6500	325	53846.4					
6500	350	54121.6					
6500	375	54649.3					
6500	400	55537.6					
6500	425	55809.2					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6500	450	55636.8					
6500	475	55512.2					
6500	500	55419.8					
6600	-2000	56678.9	6600	-2000	20.5	6.2	85.91
6600	-1975	55245.7	6600	-1975	33.4	0.3	105.6
6600	-1950	55338.6	6600	-1950	24.9	-5.9	109.5
6600	-1925	54983.3	6600	-1925	13.6	-7.3	115
6600	-1900	55014.4	6600	-1900	8.8	-3.1	121.7
6600	-1875	55108.7	6600	-1875	-1.3	3.2	124
6600	-1850	55319.8	6600	-1850	-13.3	7	127.4
6600	-1825	56210.1	6600	-1825	-24.6	8	121.5
6600	-1800	56532.6	6600	-1800	-33.2	4.7	105.4
6600	-1775	56644.6	6600	-1775	-22.3	9.3	96.69
6600	-1750	56403.1	6600	-1750	-14.4	10.1	95.6
6600	-1725	55952.8	6600	-1725	-10.6	10	94.11
6600	-1700	55286.5	6600	-1700	-7.2	8.8	102.6
6600	-1675	55817.8	6600	-1675	-10.4	6.1	98.3
6600	-1650	55471.6	6600	-1650	-11.4	5.2	100.8
6600	-1625	55698.3	6600	-1625	-9.8	7.6	99.22
6600	-1600	55789.5	6600	-1600	-5.8	8.6	110
6600	-1575	55794	6600	-1575	-17.9	2	102.2
6600	-1550	55656.8	6600	-1550	-14.4	4.4	96.28
6600	-1525	55272.6	6600	-1525	-14.2	3.2	99.52
6600	-1500	55363.2	6600	-1500	-18	-3.4	90.75
6600	-1475	56693.6	6600	-1475	-9.9	1.8	87.18
6600	-1450	56105.2	6600	-1450	-4.8	1.8	87.78
6600	-1425	56038.5	6600	-1425	-3.9	-0.2	90.7
6600	-1400	55526.2	6600	-1400	5.7	3.2	89.71
6600	-1375	55795.8	6600	-1375	15.9	9.9	99.09
6600	-1350	54608.2	6600	-1350	8	1.2	133.8
6600	-1325	55060.1	6600	-1325	-12.8	-2	122.3
6600	-1300	56085.1	6600	-1300	-16.8	-1.6	103.5
6600	-1275	55426	6600	-1275	-15.1	-6.2	96.51
6600	-1250	55758.7	6600	-1250	-5.5	0.7	92.03
6600	-1225	56121.4	6600	-1225	1.3	6.4	100.7
6600	-1200	56111.8	6600	-1200	-7.7	4.5	118.9
6600	-1175	56193.2	6600	-1175	-16.8	4.3	122.3
6600	-1150	56429.9	6600	-1150	-30.8	1.9	114.2
6600	-1125	57284.8	6600	-1125	-30.2	2.9	94.48
6600	-1100	57414	6600	-1100	-13.3	10	83.65
6600	-1075	56426.2	6600	-1075	6.1	18.1	92.32
6600	-1050	56553.7	6600	-1050	-1.6	8.9	104.1
6600	-1025	56486.2	6600	-1025	-8.1	5.6	110.2
6600	-1000	56635.4	6600	-1000	-21.1	-1	113.2
6600	-975	57913.4	6600	-975	-18.3	1	97.69
6600	-950	57459.7	6600	-950	-12.9	3.3	97.88
6600	-925	58459.4	6600	-925	-10.7	3.4	91.01
6600	-900	56904.2	6600	-900	2.7	13.3	93.57
6600	-875	55271.1	6600	-875	5.4	8.6	113.2
6600	-850	58426.6	6600	-850	-7.3	1.2	98.35

Line	Station	Mag
6600	-825	56651.5
6600	-800	57820.9
6600	-775	56197.8
6600	-750	56549.6
6600	-725	58545.4
6600	-700	57922.2
6600	-675	57755.9
6600	-650	57890.1
6600	-625	56939.4
6600	-600	57305.5
6600	-575	56797.6
6600	-550	57129.2
6600	-525	58626.8
6600	-500	58284.9
6600	-475	56474
6600	-450	55368.3
6600	-425	55920.1
6600	-400	56358.9
6600	-375	57147.5
6600	-350	57323.5
6600	-325	57066.1
6600	-300	56812
6600	-275	56521.7
6600	-250	56342.4
6600	-225	56247.6
6600	-200	56191
6600	-175	56187.5
6600	-150	56126.3
6600	-125	55900.8
6600	-100	55652.2
6600	-75	55533
6600	-50	55463.4
6600	-25	55509.7
6600	0	55349.5
6600	25	54931.3
6600	50	54822.4
6600	75	54835.7
6600	100	54922.7
6600	125	55097
6600	150	55226.5
6600	175	55074.3
6600	200	55285.3
6600	225	55333.2
6600	250	55255.9
6600	275	54955.6
6600	300	54759.8
6600	325	54563.4
6600	350	54493.9
6600	375	54683.5
6600	400	55143

Line	Station	Inphase	Quad.	T.FLD
6600	-825	0.1	7.6	104.4
6600	-800	11	14.6	105.5
6600	-775	4.8	9.7	125.4
6600	-750	-16.8	-1.9	134.3
6600	-725	-25.1	-1.2	118.6
6600	-700	-19.7	4.1	110.6
6600	-675	-21.1	1.9	106.6
6600	-650	-21.7	0.3	95.52
6600	-625	-7.6	9.1	91.72
6600	-600	3.2	13.5	108
6600	-575	-3.2	5.4	112.6
6600	-550	-8.9	2.7	114.7
6600	-525	-14	1.3	114.1
6600	-500	-16.8	-1.3	114.4
6600	-475	-17.2	-4.9	102.3
6600	-450	-6	-2.3	93.18
6600	-425	2.9	0.2	104.3
6600	-400	4.6	1.8	104.6
6600	-375	-5.4	0.5	114.9
6600	-350	-7.6	-3.2	113.4
6600	-325	-7.3	-4	115.7
6600	-300	-8.7	-5.8	115.2
6600	-275	-9.9	-5.6	116.1
6600	-250	-9.7	-4.2	115.4
6600	-225	-11.6	-3	118.1
6600	-200	-12.8	-1.1	118.3
6600	-175	-13	-2.7	117.7
6600	-150	-13.9	-0.8	117.6
6600	-125	-14.6	0.9	118.7
6600	-100	-14.7	2.4	115
6600	-75	-13	4.8	116
6600	-50	-14.7	5.1	118.4
6600	-25	-17.4	3.5	117.5
6600	0	-18	2	114.1

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6600	425	55271.7					
6600	450	54876.1					
6600	475	54621.6					
6600	500	54427.9					
6700	-2000	55259.4	6700	-2000	-19.4	5.2	97.56
6700	-1975	55488.2	6700	-1975	-23	-1.6	93.78
6700	-1950	55626.8	6700	-1950	-19.8	-3.1	89.1
6700	-1925	55710.8	6700	-1925	0	6.4	89.73
6700	-1900	55577	6700	-1900	2.7	7	98.27
6700	-1875	54932.9	6700	-1875	-2.6	6.8	106.7
6700	-1850	55204.5	6700	-1850	-7.4	7.8	96
6700	-1825	55053.1	6700	-1825	-3.3	10.7	95.77
6700	-1800	55185.6	6700	-1800	-3.6	10.2	97.48
6700	-1775	55018.7	6700	-1775	-6.7	8.5	97.2
6700	-1750	55079.2	6700	-1750	-6.3	8.3	95.68
6700	-1725	55109.1	6700	-1725	-12.7	4.5	97.85
6700	-1700	55225.5	6700	-1700	-14.4	2.4	93.74
6700	-1675	55062.6	6700	-1675	-7.7	5.1	90.36
6700	-1650	55237.9	6700	-1650	1.9	8.6	95.25
6700	-1625	55565	6700	-1625	-4.1	4.8	109.4
6700	-1600	55304	6700	-1600	-20.3	0.4	115.9
6700	-1575	56599.7	6700	-1575	-36.5	-6.9	96.25
6700	-1550	56660.1	6700	-1550	-17.8	2.9	83.4
6700	-1525	56529.7	6700	-1525	-10.5	4.6	81.85
6700	-1500	56175.5	6700	-1500	0.8	9.2	80.53
6700	-1475	55464.4	6700	-1475	10.5	8.2	96.72
6700	-1450	55286.3	6700	-1450	-2.6	-0.9	100.5
6700	-1425	55147.7	6700	-1425	-3.1	-2.6	90.81
6700	-1400	55093.2	6700	-1400	4.9	-0.3	82.67
6700	-1375	55608.3	6700	-1375	22.2	8	97.28
6700	-1350	54979.9	6700	-1350	0.3	2.9	119.2
6700	-1325	55748	6700	-1325	-13.5	3.2	112.1
6700	-1300	56063.3	6700	-1300	-20.6	3	104.2
6700	-1275	56201.6	6700	-1275	-18.1	5.4	94.09
6700	-1250	56099.6	6700	-1250	-11.2	9.4	92.45
6700	-1225	55909.9	6700	-1225	-12.6	7.1	99.91
6700	-1200	56136.9	6700	-1200	-9.3	9	100.5
6700	-1175	56139.9	6700	-1175	-13.5	7.7	103
6700	-1150	56477.5	6700	-1150	-25.8	4.1	103.5
6700	-1125	56786.9	6700	-1125	-27.3	5.6	91.73
6700	-1100	56846.8	6700	-1100	-24.7	6.7	88.09
6700	-1075	57006.8	6700	-1075	-22.1	5.8	87.2
6700	-1050	56555.1	6700	-1050	-14.4	7.7	83.29
6700	-1025	56871.3	6700	-1025	-4.9	14.3	85.61
6700	-1000	56606.8	6700	-1000	-1.8	12.2	90.24
6700	-975	56127.5	6700	-975	-10.6	4.8	95.44
6700	-950	56675.8	6700	-950	-13.7	3.2	87.93
6700	-925	55551.4	6700	-925	-10.4	4.8	85.2
6700	-900	53502.6	6700	-900	-4.8	8.4	85.67
6700	-875	56935.5	6700	-875	-2.8	9.6	91.47

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6700	-850	56633.4	6700	-850	-18.3	-2.3	92.27
6700	-825	56303.7	6700	-825	-10.9	1.9	100.5
6700	-800	56796.7	6700	-800	-0.4	7.2	95.06
6700	-775	56420.2	6700	-775	11.7	12.7	102
6700	-750	57361.4	6700	-750	17.6	10.9	111.9
6700	-725	59053.2	6700	-725	13.8	5.6	144.9
6700	-700	58971.1	6700	-700	-10.5	-2.6	142.8
6700	-675	59064.9	6700	-675	-17	-4.3	116.6
6700	-650	57105.3	6700	-650	-9.7	-2.2	110.7
6700	-625	54648.6	6700	-625	-11.1	-2.8	114.3
6700	-600	54795.6	6700	-600	-11.9	-0.4	114.9
6700	-575	55288.8	6700	-575	-17.1	-0.2	114.6
6700	-550	55402.5	6700	-550	-5.9	7	113.8
6700	-525	55925	6700	-525	-12.4	3.9	126.1
6700	-500	56115	6700	-500	-18.5	-1.7	102.8
6700	-475	57058.1	6700	-475	-7.4	5.8	123.4
6700	-450	57877.1	6700	-450	-17.3	1.7	121.9
6700	-425	58033.5	6700	-425	-20.1	-0.2	120.1
6700	-400	57646.1	6700	-400	-17.4	-0.9	120
6700	-375	57360.3	6700	-375	-21	-6	99.76
6700	-350	56864.5	6700	-350	-5.5	1.5	95.13
6700	-325	56661.4	6700	-325	5.9	5	111.7
6700	-300	56759.8	6700	-300	-1.6	-2	115.4
6700	-275	56722.3	6700	-275	-5.3	-5.2	121.6
6700	-250	56307.2	6700	-250	-8.6	-7	121.4
6700	-225	56137	6700	-225	-9.9	-7.3	121.7
6700	-200	56189.4	6700	-200	-11.4	-7.2	121.6
6700	-175	56293.9	6700	-175	-11.6	-6.5	121.6
6700	-150	56400.5	6700	-150	-12.2	-5.9	123.7
6700	-125	56481.7	6700	-125	-15.3	-5.2	127.8
6700	-100	55930.4	6700	-100	-20.5	-5.6	123.7
6700	-75	55195.5	6700	-75	-20	-2.8	116.4
6700	-50	54964	6700	-50	-17	0.6	115.3
6700	-25	54992.6	6700	-25	-18.6	0.2	120.8
6700	0	54471.7	6700	0	-20	-1.3	115.7
6700	25	54453.9					
6700	50	54920.9					
6700	75	54745.9					
6700	100	55146.2					
6700	125	55244.7					
6700	150	55285.8					
6700	175	55084					
6700	200	55201.3					
6700	225	55696.1					
6700	250	55705.6					
6700	275	55519.7					
6700	300	55561					
6700	325	55275.6					
6700	350	54882.5					
6700	375	54532.7					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6700	400	54176.7					
6700	425	54119.5					
6700	450	54066.2					
6700	475	54226.1					
6700	500	54356.6					
6800	-2000	55569.8	6800	-2000	3.7	9.6	102.5
6800	-1975	55615	6800	-1975	-3.2	9.6	102.4
6800	-1950	55823.2	6800	-1950	-11.7	7.7	91.44
6800	-1925	56086.2	6800	-1925	-2	10.4	81.93
6800	-1900	56069.5	6800	-1900	11.4	11.4	87.13
6800	-1875	56281.1	6800	-1875	15.5	11.4	92.66
6800	-1850	55989.2	6800	-1850	5.3	8.9	100.5
6800	-1825	55935.4	6800	-1825	6.7	12	93.65
6800	-1800	55918.3	6800	-1800	6.9	11.4	94.55
6800	-1775	55501.4	6800	-1775	7.1	10.2	92.27
6800	-1750	55479.5	6800	-1750	9.1	10.7	93.99
6800	-1725	55457.4	6800	-1725	6.7	9	93.96
6800	-1700	55408.7	6800	-1700	7.5	8	84.85
6800	-1675	56147.2	6800	-1675	15	9.2	85.86
6800	-1650	56132.5	6800	-1650	18.3	9	95.09
6800	-1625	56900.4	6800	-1625	10.2	3.8	92.77
6800	-1600	56889.3	6800	-1600	22.3	7.6	85.9
6800	-1575	55553	6800	-1575	30.4	7.6	104.8
6800	-1550	55571.1	6800	-1550	23.8	5.9	115.2
6800	-1525	55515.4	6800	-1525	8.6	5.1	112.5
6800	-1500	55728.7	6800	-1500	-7.2	4.5	106.1
6800	-1475	55824.3	6800	-1475	-6.8	5.1	89.92
6800	-1450	56004.8	6800	-1450	2.8	4.1	84.79
6800	-1425	55665.9	6800	-1425	13.7	4	86.16
6800	-1400	55579.1	6800	-1400	16.9	2	92.88
6800	-1375	55391.4	6800	-1375	14	0	101.1
6800	-1350	55556.7	6800	-1350	6.4	-2.3	101
6800	-1325	55954.4	6800	-1325	5.7	-2.6	99.27
6800	-1300	55753.7	6800	-1300	9	-1.1	100.7
6800	-1275	55422.1	6800	-1275	5.8	1.4	105.4
6800	-1250	55526.1	6800	-1250	1.9	2.9	103.3
6800	-1225	55736	6800	-1225	2.2	4.9	102.2
6800	-1200	55798.3	6800	-1200	-0.1	5.7	103.1
6800	-1175	55912.3	6800	-1175	0.2	6.8	99.28
6800	-1150	56578	6800	-1150	-1.5	6.4	101.4
6800	-1125	56056.8	6800	-1125	7.8	10.8	105.4
6800	-1100	56222.9	6800	-1100	-5	8.2	115.3
6800	-1075	56867.5	6800	-1075	-7.4	9.3	95.44
6800	-1050	56236.7	6800	-1050	2	12.3	93.97
6800	-1025	55379.7	6800	-1025	9.4	11.7	101.3
6800	-1000	55762	6800	-1000	16	11.7	93.47
6800	-975	55265.3	6800	-975	16.1	10.4	104.6
6800	-950	55464.6	6800	-950	12.8	7.8	109.9
6800	-925	55902.3	6800	-925	7.5	7.8	107.9
6800	-900	55804.6	6800	-900	12.4	8.9	120.5

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6800	-875	57464.9	6800	-875	-0.2	6.3	108.6
6800	-850	57162.8	6800	-850	-3.3	3.2	100.1
6800	-825	56889.2	6800	-825	3.5	6	95.15
6800	-800	57371.9	6800	-800	-0.6	1.4	104.1
6800	-775	57128.6	6800	-775	0.1	-0.5	93.44
6800	-750	56755.5	6800	-750	16.2	5.1	90.58
6800	-725	56031.5	6800	-725	38.6	10.9	99.22
6800	-700	55833.4	6800	-700	37.2	5.1	128.6
6800	-675	58461.7	6800	-675	9.2	-2.2	132
6800	-650	59210.3	6800	-650	7.6	-4.5	121.3
6800	-625	57523.1	6800	-625	-3.9	-7.3	106.8
6800	-600	58809.6	6800	-600	12.4	-6	96.83
6800	-575	58974.1	6800	-575	21.5	-4.9	98.83
6800	-550	57334	6800	-550	31.9	-1.5	120.9
6800	-525	56643	6800	-525	9.5	-2.5	125.7
6800	-500	56773.5	6800	-500	9.1	2.1	122.3
6800	-475	57551.2	6800	-475	2.2	4	123.1
6800	-450	58057.3	6800	-450	-0.6	6.3	121.5
6800	-425	57964.4	6800	-425	-6.6	6.8	118.1
6800	-400	57266.1	6800	-400	-5.5	6.6	111.1
6800	-375	57200.3	6800	-375	-9.9	5.7	108.1
6800	-350	57303.6	6800	-350	-4.9	5.8	100
6800	-325	57252.5	6800	-325	0.8	4.7	100.6
6800	-300	56796.6	6800	-300	2.9	2	102.3
6800	-275	56507.6	6800	-275	3.9	-1.7	106.4
6800	-250	57287.4	6800	-250	0	-1.1	104
6800	-225	57223.3	6800	-225	4.3	-4.4	97.94
6800	-200	57476	6800	-200	14.2	-5.3	100.8
6800	-175	57404.1	6800	-175	17	-9.2	110.8
6800	-150	56656.1	6800	-150	22.5	-13.8	114.7
6800	-125	56759.9	6800	-125	13.2	-9.1	122.9
6800	-100	56244.6	6800	-100	5.3	-7.2	118.9
6800	-75	55756.2	6800	-75	3	-7.4	113.9
6800	-50	55382.7	6800	-50	3.3	-2.2	112.4
6800	-25	55469.1	6800	-25	-1.3	-1	113.6
6800	0	55436.9	6800	0	-1.4	0.5	111.5
6800	25	55235.1					
6800	50	55438.8					
6800	75	55524					
6800	100	55415.1					
6800	125	55441.7					
6800	150	55747.2					
6800	175	56001.3					
6800	200	56173.5					
6800	225	56182.9					
6800	250	56052.3					
6800	275	55728.7					
6800	300	55314.5					
6800	325	55233.9					
6800	350	55102.9					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6800	375	54748					
6800	400	54300.5					
6800	425	54088.1					
6800	450	54146.2					
6800	475	54276.1					
6800	500	54385.1					
6900	-1000	55088.9					
6900	-975	55062.2					
6900	-950	55479.4					
6900	-925	56403					
6900	-900	56074.7					
6900	-875	55708					
6900	-850	55891.6					
6900	-825	55938.8					
6900	-800	56410.5					
6900	-775	55648.5					
6900	-750	57636					
6900	-725	56431.5					
6900	-700	56396.3					
6900	-675	55445.8					
6900	-650	55880.6					
6900	-625	56091.2					
6900	-600	57414.6					
6900	-575	57690					
6900	-550	58793.6					
6900	-525	58635.9					
6900	-500	57667.2					
6900	-475	58259.3					
6900	-450	58860.9					
6900	-425	59145.6					
6900	-400	57641.6					
6900	-375	57211.6					
6900	-350	57347					
6900	-325	58668.5					
6900	-300	58691.3					
6900	-275	56440.3					
6900	-250	56076.2					
6900	-225	56150.1					
6900	-200	56077.9					
6900	-175	55807.8					
6900	-150	55196.7					
6900	-125	55156.8					
6900	-100	55583					
6900	-75	55987.9					
6900	-50	56573.1					
6900	-25	56788.4					
6900	0	56952.4					
6900	0	56946.1					
6900	25	57353.3					
6900	50	56945.8					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
6900	75	56260.8					
6900	100	55880.2					
6900	125	55712					
6900	150	55867.8					
6900	175	55949.2					
6900	200	55823					
6900	225	56226.7					
6900	250	56708.8					
6900	275	56397.1					
6900	300	55348.3					
6900	325	55584.6					
6900	350	55638.5					
6900	375	55226.6					
6900	400	55036.8					
6900	425	54770.2					
6900	450	54761.6					
6900	475	54815.1					
6900	500	54864.9					
7000	-2000	55562.2	7000	-2000	-13.6	13.4	81.08
7000	-1975	55752.6	7000	-1975	-26.6	7.8	76.89
7000	-1950	57173.3	7000	-1950	-17.6	14.4	64.04
7000	-1925	55644	7000	-1925	-15.3	4.8	69.45
7000	-1900	56745.4	7000	-1900	-15.5	0.5	61.06
7000	-1875	56748.3	7000	-1875	6	12.4	60.76
7000	-1850	55490	7000	-1850	25.7	17.8	69.11
7000	-1825	55691.4	7000	-1825	8.2	3	91
7000	-1800	55506.5	7000	-1800	-9.1	-4.5	79.71
7000	-1775	55688.8	7000	-1775	-0.5	0.5	71.16
7000	-1750	54964	7000	-1750	9.5	7.5	75.95
7000	-1725	55640.3	7000	-1725	-3.9	2.8	76.22
7000	-1700	56004.8	7000	-1700	4.3	8.6	78.25
7000	-1675	55835.8	7000	-1675	-1.4	5.6	81.77
7000	-1650	56408.8	7000	-1650	-8.9	5	80.31
7000	-1625	56365.1	7000	-1625	-6.3	4.7	78.95
7000	-1600	56251	7000	-1600	-6.4	4.5	83.07
7000	-1575	55640.3	7000	-1575	-10.1	5.3	85.33
7000	-1550	55636.2	7000	-1550	-17.6	6.1	83.28
7000	-1525	55754.2	7000	-1525	-19.5	4.7	79.55
7000	-1500	55987.7	7000	-1500	-18.8	4.5	76.71
7000	-1475	55837.3	7000	-1475	-19.1	2.9	73.64
7000	-1450	55597.1	7000	-1450	-19.3	-1.1	73.92
7000	-1425	56099	7000	-1425	-18.9	-1.5	70.53
7000	-1400	56067.8	7000	-1400	-19.8	-4.9	70.4
7000	-1375	55739.2	7000	-1375	-8.5	-2	69.62
7000	-1350	56082.6	7000	-1350	-11.3	-4.2	66.72
7000	-1325	55947.9	7000	-1325	-1.2	1	66.76
7000	-1300	55164.8	7000	-1300	0	0.1	72.58
7000	-1275	55060.8	7000	-1275	-2.1	-1.3	73.99
7000	-1250	54594.8	7000	-1250	-2.7	-0.2	77.89
7000	-1225	55344.5	7000	-1225	-9.4	1.5	78.02

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7000	-1200	55445.8	7000	-1200	-9.8	4.4	76.21
7000	-1175	55913.8	7000	-1175	-14	8.1	74.77
7000	-1150	55861.3	7000	-1150	-13	8.3	73.64
7000	-1125	55730.3	7000	-1125	-13.2	8.2	72.27
7000	-1100	55770.2	7000	-1100	-11.3	7.9	72.37
7000	-1075	55959.6	7000	-1075	-10	8.1	71.87
7000	-1050	55846.8	7000	-1050	-11.7	7.8	72.63
7000	-1025	56090.5	7000	-1025	-13.3	7.5	73.59
7000	-1000	55873.8	7000	-1000	-13.7	7	72.85
7000	-975	55837.9	7000	-975	-17.1	5.7	74.73
7000	-950	56487.4	7000	-950	-24.3	3.3	70.07
7000	-925	56433.4	7000	-925	-18.5	6.6	64.56
7000	-900	56206.2	7000	-900	-12.1	10.3	66.19
7000	-875	57248.3	7000	-875	-14.4	6.7	117.8
7000	-850	56980.5	7000	-850	-11.7	7.2	116.9
7000	-825	55327	7000	-825	-18.1	4.3	118
7000	-800	56306.5	7000	-800	-18.3	4.1	112.2
7000	-775	56111.3	7000	-775	-14.2	6.5	115.9
7000	-750	57889.4	7000	-750	-27	-1	119.1
7000	-725	56382.2	7000	-725	-20.3	0.7	103.1
7000	-700	56053.5	7000	-700	-14.6	1.4	104.4
7000	-675	56493.5	7000	-675	-11.4	2.2	105.6
7000	-650	56513.4	7000	-650	-10.2	-2.5	103.3
7000	-625	56485.2	7000	-625	-6	-3.5	103.2
7000	-600	56758.9	7000	-600	1.7	-5.3	97.7
7000	-575	56811.7	7000	-575	11.1	-5.8	107.3
7000	-550	57281.6	7000	-550	7.7	-8	125.7
7000	-525	57842.9	7000	-525	-1.3	-8.8	136
7000	-500	57921.2	7000	-500	-7.7	-6.4	140.6
7000	-475	57857	7000	-475	-15.7	-3.8	138.7
7000	-450	58625.3	7000	-450	-22.8	-2.8	132
7000	-425	58275.9	7000	-425	-21.4	-4.2	121.5
7000	-400	56878.2	7000	-400	-12	-3	129.7
7000	-375	56802.5	7000	-375	-20.4	-0.1	137.9
7000	-350	57227.8	7000	-350	-30.7	1.1	129.2
7000	-325	57344	7000	-325	-30.9	1.3	112.9
7000	-300	56328	7000	-300	-17.9	3	102.8
7000	-275	55923.5	7000	-275	-5.7	2.4	104.5
7000	-250	55661.4	7000	-250	-0.6	-0.8	112.4
7000	-225	55480	7000	-225	-4	-4.3	125.6
7000	-200	55046.6	7000	-200	-8.8	-6.9	128
7000	-175	54666.8	7000	-175	-13	-7	129
7000	-150	55121.1	7000	-150	-16.4	-0.2	135.7
7000	-125	55933.6	7000	-125	-21.1	3.2	134.5
7000	-100	56961.1	7000	-100	-38.3	0	128
7000	-75	58395.2	7000	-75	-39.4	1.8	112.4
7000	-50	59461.5	7000	-50	-26.2	2.3	93.2
7000	-25	56890.6	7000	-25	1.6	3.3	104.9
7000	0	56555.2	7000	0	-2.4	1.3	123.8
7000	25	56164.8					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7000	50	55614.5					
7000	75	55073					
7000	100	55283.4					
7000	125	55860.7					
7000	150	56022.2					
7000	175	55327					
7000	200	55445.2					
7000	225	56180.2					
7000	250	56777.7					
7000	275	56086.2					
7000	300	55322.4					
7000	325	55032.2					
7000	350	55382.4					
7000	375	54938.1					
7000	400	55316.7					
7000	425	55858.8					
7000	450	55859					
7000	475	55938.9					
7000	500	56015.2					
7100	-1000	56047.7					
7100	-975	56277.1					
7100	-950	56293.5					
7100	-925	56182.1					
7100	-900	56313					
7100	-875	56433.6					
7100	-850	56850.6					
7100	-825	56226					
7100	-800	59063.2					
7100	-775	57022.2					
7100	-750	58118.6					
7100	-725	55285.1					
7100	-700	57033.2					
7100	-675	58706					
7100	-650	57640.9					
7100	-625	57110.2					
7100	-600	56786.3					
7100	-575	56756.6					
7100	-550	56488.5					
7100	-525	56663					
7100	-500	56870.1					
7100	-475	57653.6					
7100	-450	58040.3					
7100	-425	57538.7					
7100	-400	57529.2					
7100	-375	57284.4					
7100	-350	56014.4					
7100	-325	55761.5					
7100	-300	55742.1					
7100	-275	55634.4					
7100	-250	55507.8					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7100	-225	54640.6					
7100	-200	55127.9					
7100	-175	55948.1					
7100	-150	56314					
7100	-125	56030.2					
7100	-100	56529.4					
7100	-75	56574.2					
7100	-50	56098.8					
7100	-25	56446.6					
7100	0	57507					
7100	0	57506.2					
7100	25	53667.8					
7100	50	55089.8					
7100	75	55954.1					
7100	100	55954.2					
7100	125	55784.4					
7100	150	55709					
7100	175	55722.4					
7100	200	55708.6					
7100	225	55276.9					
7100	250	55374.5					
7100	275	55937.6					
7100	300	54568.8					
7100	325	53557.7					
7100	350	53720.9					
7100	375	54481.9					
7100	400	54273.4					
7100	425	54404.3					
7100	450	55251.9					
7100	475	55069.9					
7100	500	54509.8					
7200	-2000	55673	7200	-2000	17	4.6	90.68
7200	-1975	55606.6	7200	-1975	18.2	3.2	89.02
7200	-1950	55515.8	7200	-1950	16.9	2	92.1
7200	-1925	55234.4	7200	-1925	13.2	5.3	92.42
7200	-1900	55246.6	7200	-1900	7.7	8.2	88.02
7200	-1875	55490.3	7200	-1875	4.1	10.7	84.36
7200	-1850	55583	7200	-1850	3.7	10.5	82.83
7200	-1825	55910.2	7200	-1825	3.2	9.8	80.86
7200	-1800	55905.9	7200	-1800	6.4	7.9	79.27
7200	-1775	55681.2	7200	-1775	7.3	6.6	78.36
7200	-1750	55635.9	7200	-1750	9.7	4.7	77.99
7200	-1725	55421.9	7200	-1725	11.4	2.3	80.3
7200	-1700	55186.1	7200	-1700	10.9	0.2	82.82
7200	-1675	55233	7200	-1675	11.9	0.6	85.73
7200	-1650	55462.9	7200	-1650	11.5	1	90.75
7200	-1625	55407.5	7200	-1625	8.6	1.7	92.99
7200	-1600	55463.4	7200	-1600	6.4	3.2	91.94
7200	-1575	55502.8	7200	-1575	5.8	4.7	89.51
7200	-1550	55609.1	7200	-1550	7.4	6	89.5

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7200	-1525	55863.6	7200	-1525	7.5	5.6	87.17
7200	-1500	55877.7	7200	-1500	5	5.5	86.16
7200	-1475	55980.1	7200	-1475	6.3	6.8	83.56
7200	-1450	56143.4	7200	-1450	10.4	8.7	85.91
7200	-1425	56267.7	7200	-1425	6.9	8	87.12
7200	-1400	56386.8	7200	-1400	6.3	6.6	84.98
7200	-1375	56483.1	7200	-1375	12.2	5	83.8
7200	-1350	56023	7200	-1350	19.4	7	91.49
7200	-1325	55632.6	7200	-1325	14.5	8.3	100.6
7200	-1300	56265.6	7200	-1300	7.2	11.6	97.71
7200	-1275	56557.7	7200	-1275	0.2	13	89.85
7200	-1250	56429.7	7200	-1250	-1.2	13.3	90.61
7200	-1225	56400.2	7200	-1225	3.8	13.2	84.29
7200	-1200	56588	7200	-1200	6.1	13.4	83.92
7200	-1175	56451.8	7200	-1175	11.5	13.8	82.51
7200	-1150	56657.6	7200	-1150	15.4	11.3	111.4
7200	-1125	56566.6	7200	-1125	18.8	11.2	112.7
7200	-1100	56727.8	7200	-1100	18.4	9.6	123.8
7200	-1075	56711.1	7200	-1075	13.8	8.1	124.7
7200	-1050	56729.5	7200	-1050	10.1	7.9	122
7200	-1025	56327.3	7200	-1025	3.9	6	119.6
7200	-1000	56382	7200	-1000	5.1	5.6	115.2
7200	-975	56451.4	7200	-975	2.9	3.5	112.8
7200	-950	55845.4	7200	-950	6.4	3.9	109.9
7200	-925	55447.5	7200	-925	5.6	3.5	115.5
7200	-900	56253.2	7200	-900	-3.6	0	113
7200	-875	55865.8	7200	-875	2.6	3.9	112.6
7200	-850	57671.8	7200	-850	-4.5	2	113.4
7200	-825	57097.5	7200	-825	-1.3	1.4	99.85
7200	-800	57329.1	7200	-800	4.8	0.2	102
7200	-775	55797.8	7200	-775	19	4	105.6
7200	-750	55416.6	7200	-750	23.1	3.4	111.2
7200	-725	55164.5	7200	-725	20.5	0	122.8
7200	-700	55356.1	7200	-700	15.1	-1.3	124.7
7200	-675	55598.7	7200	-675	7.8	-1.1	131.5
7200	-650	56043	7200	-650	-0.8	0.3	134.8
7200	-625	55588.4	7200	-625	-14.1	0.4	124.3
7200	-600	55424.1	7200	-600	-11.8	0.3	111.6
7200	-575	56084.5	7200	-575	-1.6	-2.2	106.5
7200	-550	57807.9	7200	-550	6.3	0	107.7
7200	-525	55956.3	7200	-525	9.3	0.4	106.2
7200	-500	56043	7200	-500	8.8	0.9	115
7200	-475	56173.9	7200	-475	4.4	1.4	116.2
7200	-450	56038.3	7200	-450	2.1	-1.1	111.9
7200	-425	55687.7	7200	-425	4.3	-1.1	112.2
7200	-400	55552.1	7200	-400	5.9	-1.1	114
7200	-375	55460.6	7200	-375	5.6	-1	117.1
7200	-350	55552.8	7200	-350	5.7	1.1	117.6
7200	-325	55516.4	7200	-325	6.5	2.2	117.1
7200	-300	54887.9	7200	-300	8.3	2.4	121.4

Line	Station	Mag
7200	-275	55037.1
7200	-250	55754
7200	-225	56211.4
7200	-200	56610.5
7200	-175	56790.1
7200	-150	56900.2
7200	-125	57655.8
7200	-100	58314.1
7200	-75	58300.6
7200	-50	57158.2
7200	-25	55528.3
7200	0	56261.7
7200	25	58392.2
7200	50	55937.2
7200	75	56404.9
7200	100	55287.4
7200	125	56103.8
7200	150	55972.5
7200	175	55556.2
7200	200	54605.9
7200	225	54637.9
7200	250	53864.1
7200	275	53348.2
7200	300	53089.8
7200	325	54219
7200	350	54140.3
7200	375	58066
7200	400	56052.9
7200	425	55774.7
7200	450	56156.1
7200	475	56490.2
7200	500	56317.8
7300	-500	55420.1
7300	-475	55802.2
7300	-450	56176.7
7300	-425	56255.5
7300	-400	55495.5
7300	-375	54815.3
7300	-350	55452.6
7300	-325	56277
7300	-300	56667
7300	-275	56706.4
7300	-250	56514.8
7300	-225	56297.5
7300	-200	56637.1
7300	-175	57579.8
7300	-150	56123.4
7300	-125	55829.1
7300	-100	55562
7300	-75	55716.7

Line	Station	Inphase	Quad.	T.FLD
7200	-275	8.2	4.3	122.4
7200	-250	7	6.4	123.1
7200	-225	7.8	5.3	125.5
7200	-200	6.2	6.1	128.2
7200	-175	2.4	9.3	130.2
7200	-150	0.7	11.6	127.9
7200	-125	-2.6	12.4	125.7
7200	-100	-3.7	10.2	121.1
7200	-75	-9.2	8	118.4
7200	-50	-9.9	0.3	117
7200	-25	0.8	1.5	118.4
7200	0	1.1	1.5	131.5

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7300	-50	55956.3					
7300	-25	55774.4					
7300	0	55543.8					
7300	0	55535.3					
7300	25	55749.5					
7300	50	55410.5					
7300	75	55468.8					
7300	100	55333.9					
7300	125	54886.9					
7300	150	55164.4					
7300	175	55107.4					
7300	200	55402.3					
7300	225	55839.7					
7300	250	55202.4					
7300	275	54657.7					
7300	300	54474.2					
7300	325	54862.1					
7300	350	54778.9					
7300	375	54437					
7300	400	54594.1					
7300	425	55204.9					
7300	450	55335.2					
7300	475	55373.1					
7300	500	55443.3					
7400	-2000	55786.6	7400	-2000	9.3	11.5	103.1
7400	-1975	55941.3	7400	-1975	4.8	11	97.09
7400	-1950	55947.6	7400	-1950	4.7	9.8	92.27
7400	-1925	56093.2	7400	-1925	3.1	6	85.34
7400	-1900	56326.8	7400	-1900	6.5	2.5	83.32
7400	-1875	56284.3	7400	-1875	11.2	0.3	87.19
7400	-1850	56678.2	7400	-1850	12.7	-2.6	83.57
7400	-1825	56530.1	7400	-1825	23.7	-1	87.12
7400	-1800	55514.2	7400	-1800	16	-3	97.77
7400	-1775	55285.2	7400	-1775	8.5	-3.1	100.4
7400	-1750	55607.4	7400	-1750	-5.6	-4	91.67
7400	-1725	56304.1	7400	-1725	1.1	-6.6	77.67
7400	-1700	55794.4	7400	-1700	20.9	-1.3	82.54
7400	-1675	55465.3	7400	-1675	17.6	-1.4	93.27
7400	-1650	55737.7	7400	-1650	8.3	0.4	95.58
7400	-1625	55833.4	7400	-1625	3.5	0.2	91.56
7400	-1600	56038.1	7400	-1600	3.4	-0.8	84.82
7400	-1575	56247.8	7400	-1575	11.3	0	82.04
7400	-1550	56090	7400	-1550	18.2	1.1	88.83
7400	-1525	55693.4	7400	-1525	15.7	-0.3	94.51
7400	-1500	55279.7	7400	-1500	9.7	-1.3	95.18
7400	-1475	55096.4	7400	-1475	7.1	-1.8	88.78
7400	-1450	55056.2	7400	-1450	7.8	-0.5	86.15
7400	-1425	55212.6	7400	-1425	10.9	4.1	82.8
7400	-1400	55503	7400	-1400	15.1	4.7	84.56
7400	-1375	55453.9	7400	-1375	16.7	5.4	88.47

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7200	-275	55037.1	7200	-275	8.2	4.3	122.4
7200	-250	55754	7200	-250	7	6.4	123.1
7200	-225	56211.4	7200	-225	7.8	5.3	125.5
7200	-200	56610.5	7200	-200	6.2	6.1	128.2
7200	-175	56790.1	7200	-175	2.4	9.3	130.2
7200	-150	56900.2	7200	-150	0.7	11.6	127.9
7200	-125	57655.8	7200	-125	-2.6	12.4	125.7
7200	-100	58314.1	7200	-100	-3.7	10.2	121.1
7200	-75	58300.6	7200	-75	-9.2	8	118.4
7200	-50	57158.2	7200	-50	-9.9	0.3	117
7200	-25	55528.3	7200	-25	0.8	1.5	118.4
7200	0	56261.7	7200	0	1.1	1.5	131.5
7200	25	58392.2					
7200	50	55937.2					
7200	75	56404.9					
7200	100	55287.4					
7200	125	56103.8					
7200	150	55972.5					
7200	175	55556.2					
7200	200	54605.9					
7200	225	54637.9					
7200	250	53864.1					
7200	275	53348.2					
7200	300	53089.8					
7200	325	54219					
7200	350	54140.3					
7200	375	58066					
7200	400	56052.9					
7200	425	55774.7					
7200	450	56156.1					
7200	475	56490.2					
7200	500	56317.8					
7300	-500	55420.1					
7300	-475	55802.2					
7300	-450	56176.7					
7300	-425	56255.5					
7300	-400	55495.5					
7300	-375	54815.3					
7300	-350	55452.6					
7300	-325	56277					
7300	-300	56667					
7300	-275	56706.4					
7300	-250	56514.8					
7300	-225	56297.5					
7300	-200	56637.1					
7300	-175	57579.8					
7300	-150	56123.4					
7300	-125	55829.1					
7300	-100	55562					
7300	-75	55716.7					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7400	-1350	55467.8	7400	-1350	13.6	7.6	93.26
7400	-1325	55721.8	7400	-1325	7.9	11	95.48
7400	-1300	55870	7400	-1300	4.4	14.9	97.68
7400	-1275	55978.7	7400	-1275	4.7	16.9	100.7
7400	-1250	55881.2	7400	-1250	4.1	16.3	105.8
7400	-1225	56371.8	7400	-1225	-7.6	16.4	107.4
7400	-1200	56793.7	7400	-1200	-10.6	17.7	95.71
7400	-1175	57281.9	7400	-1175	-6.7	17.5	88.65
7400	-1150	57454.4	7400	-1150	-1.5	16.3	84.49
7400	-1125	58032.4	7400	-1125	2.4	15	87.1
7400	-1100	57215.5	7400	-1100	5.5	12.6	89.96
7400	-1075	57403.2	7400	-1075	12.8	13.4	88.62
7400	-1050	56817.7	7400	-1050	12.3	10.1	92.32
7400	-1025	56304.4	7400	-1025	13.4	9.5	99.05
7400	-1000	56884.8	7400	-1000	-1	3.6	93.6
7400	-975	56731.3	7400	-975	9.2	7.5	90.65
7400	-950	57043.1	7400	-950	-4	-2	86.94
7400	-925	57736.1	7400	-925	5	0.3	77.25
7400	-900	56008.4	7400	-900	9.5	-1.8	79.6
7400	-875	56031	7400	-875	24.1	2.9	75.47
7400	-850	55019.7	7400	-850	35.3	5.8	86.59
7400	-825	54699.5	7400	-825	27.7	1.1	97.58
7400	-800	55178.1	7400	-800	15.4	-1.1	102.2
7400	-775	55511.1	7400	-775	9.1	-1.4	102.2
7400	-750	55227.7	7400	-750	1.1	-3.3	103.5
7400	-725	55806	7400	-725	-10.9	-2.6	96.38
7400	-700	55835.4	7400	-700	-4.3	1.7	86.68
7400	-675	56458.9	7400	-675	-7.4	1.8	87.86
7400	-650	55564	7400	-650	5.4	2.5	83.28
7400	-625	55991.5	7400	-625	3.8	1.7	89.66
7400	-600	55829	7400	-600	-1.4	0.7	91.43
7400	-575	55759.4	7400	-575	-7.3	-1.4	86.39
7400	-550	55798.8	7400	-550	-7.7	-3.4	81.69
7400	-525	56208.3	7400	-525	-1.1	-4.7	72.23
7400	-500	56020.3	7400	-500	20.7	-1.8	69.87
7400	-475	55742.8	7400	-475	35	-3.7	74.41
7400	-450	54546.6	7400	-450	46.9	-5	90.67
7400	-425	53889.2	7400	-425	28.3	-5.4	109.9
7400	-400	55696.7	7400	-400	11.3	-1.6	103.9
7400	-375	57331.8	7400	-375	10.1	2	95.95
7400	-350	57441.8	7400	-350	7.4	3.2	92.89
7400	-325	57068.4	7400	-325	9.5	4.6	90.55
7400	-300	57668.8	7400	-300	10.6	4.6	91.86
7400	-275	58025.5	7400	-275	10.4	5	91.55
7400	-250	57704.4	7400	-250	10.2	6.4	94.76
7400	-225	56645.7	7400	-225	8.7	7.8	98
7400	-200	56668.9	7400	-200	3.1	9.5	97.91
7400	-175	57463.4	7400	-175	-2.2	12.1	93.93
7400	-150	57641	7400	-150	-2.4	11.7	89.31
7400	-125	58229.3	7400	-125	-2.4	11.8	85.01

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7400	-100	57660.7	7400	-100	5.4	11.2	85.06
7400	-75	56274.8	7400	-75	5	7.5	95.97
7400	-50	56202.8	7400	-50	-8.1	6.1	104.6
7400	-25	57407.2	7400	-25	-22.7	3.1	93.45
7400	0	57019.6	7400	0	-19.7	3.3	80.65
7400	25	57677.7					
7400	50	58336.1					
7400	75	58376.9					
7400	100	55990.7					
7400	125	56901.2					
7400	150	55863.6					
7400	175	55471.8					
7400	200	55115.2					
7400	225	55591.9					
7400	250	56910.6					
7400	275	59214.1					
7400	300	56151.7					
7400	325	55651.1					
7400	350	55754.7					
7400	375	56163.7					
7400	400	57454.2					
7400	425	56602.6					
7400	450	55435.3					
7400	475	54898.3					
7400	500	54217.8					
7500	-500	55662.7					
7500	-475	56067.3					
7500	-450	54127.7					
7500	-425	54045.9					
7500	-400	55045.1					
7500	-375	55453.1					
7500	-350	55497.2					
7500	-325	56178.7					
7500	-300	56613					
7500	-275	57130.2					
7500	-250	57151.8					
7500	-225	58492.4					
7500	-200	57114.8					
7500	-175	61238.2					
7500	-150	60047.9					
7500	-125	58636					
7500	-100	60041.3					
7500	-75	58080.9					
7500	-50	55621.5					
7500	-25	57562.4					
7500	0	58616.6					
7500	25	56595.5					
7500	50	55891.5					
7500	75	56523.9					
7500	100	57031.8					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7500	125	53978.9					
7500	150	55276.6					
7500	175	56621.6					
7500	200	56352					
7500	225	56839.9					
7500	250	55798.9					
7500	275	56263.3					
7500	300	54968.2					
7500	325	55057.4					
7500	350	55665.2					
7500	375	55708.8					
7500	400	55489.2					
7500	425	55212.6					
7500	450	56438.4					
7500	475	54857.8					
7500	500	54234.9					
7600	-2000	55214.5	7600	-2000	-4.6	5.5	92.96
7600	-1975	55313.9	7600	-1975	-9.3	7.4	92.37
7600	-1950	55380.1	7600	-1950	-9.6	6.7	91.35
7600	-1925	55486.4	7600	-1925	-9.9	7.2	89.96
7600	-1900	55475.8	7600	-1900	-9.1	5.7	90.26
7600	-1875	55394.6	7600	-1875	-8.6	4.3	90.7
7600	-1850	55404.7	7600	-1850	-7.8	4.7	92.36
7600	-1825	55408.3	7600	-1825	-10.4	4.5	94.87
7600	-1800	55577.4	7600	-1800	-15.8	6.1	95.74
7600	-1775	56059.6	7600	-1775	-24.4	6	94.29
7600	-1750	56258.5	7600	-1750	-28.8	4.3	88.88
7600	-1725	56626.7	7600	-1725	-28.8	1.9	77.96
7600	-1700	56739.3	7600	-1700	-11.7	6.5	69.9
7600	-1675	56629.6	7600	-1675	3.1	2.7	72.89
7600	-1650	56780.9	7600	-1650	8.3	-2.5	82.83
7600	-1625	56173.2	7600	-1625	11.8	-5.9	89.64
7600	-1600	55803.8	7600	-1600	8.2	-9	95.9
7600	-1575	55627	7600	-1575	0.7	-10.8	97.82
7600	-1550	55495.9	7600	-1550	-5.4	-7.6	95.48
7600	-1525	55563.9	7600	-1525	-7.4	-4.9	92.63
7600	-1500	55675	7600	-1500	-7.7	-2.5	89.97
7600	-1475	55898	7600	-1475	-5.6	0	87.66
7600	-1450	56044	7600	-1450	-6	0.2	89.1
7600	-1425	55889.5	7600	-1425	-6.5	-0.4	90.32
7600	-1400	55776.9	7600	-1400	-6.4	3.3	89.09
7600	-1375	55856.7	7600	-1375	-8.8	7.8	90.22
7600	-1350	56159	7600	-1350	-9.8	11	89.42
7600	-1325	56177.5	7600	-1325	-11	12.3	93.44
7600	-1300	56340.5	7600	-1300	-20.2	13.7	95.52
7600	-1275	56853.4	7600	-1275	-29.6	12.1	83.67
7600	-1250	56721.8	7600	-1250	-11.9	15.6	72.05
7600	-1225	56353.9	7600	-1225	0.8	13.5	76.1
7600	-1200	56021.8	7600	-1200	-0.4	8.6	82.4
7600	-1175	55935	7600	-1175	4.8	7.8	85.77

Line	Station	Mag
7400	-100	57660.7
7400	-75	56274.8
7400	-50	56202.8
7400	-25	57407.2
7400	0	57019.6
7400	25	57677.7
7400	50	58336.1
7400	75	58376.9
7400	100	55990.7
7400	125	56901.2
7400	150	55863.6
7400	175	55471.8
7400	200	55115.2
7400	225	55591.9
7400	250	56910.6
7400	275	59214.1
7400	300	56151.7
7400	325	55651.1
7400	350	55754.7
7400	375	56163.7
7400	400	57454.2
7400	425	56602.6
7400	450	55435.3
7400	475	54898.3
7400	500	54217.8
7500	-500	55662.7
7500	-475	56067.3
7500	-450	54127.7
7500	-425	54045.9
7500	-400	55045.1
7500	-375	55453.1
7500	-350	55497.2
7500	-325	56178.7
7500	-300	56613
7500	-275	57130.2
7500	-250	57151.8
7500	-225	58492.4
7500	-200	57114.8
7500	-175	61238.2
7500	-150	60047.9
7500	-125	58636
7500	-100	60041.3
7500	-75	58080.9
7500	-50	55621.5
7500	-25	57562.4
7500	0	58616.6
7500	25	56595.5
7500	50	55891.5
7500	75	56523.9
7500	100	57031.8

Line	Station	Inphase	Quad.	T.FLD
7400	-100	5.4	11.2	85.06
7400	-75	5	7.5	95.97
7400	-50	-8.1	6.1	104.6
7400	-25	-22.7	3.1	93.45
7400	0	-19.7	3.3	80.65

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7600	-1150	55482.4	7600	-1150	1.4	6.3	95.18
7600	-1125	55731.1	7600	-1125	-7.3	10	92.12
7600	-1100	55659.1	7600	-1100	-12	11.1	91.01
7600	-1075	55562.7	7600	-1075	-13.1	9.3	87.51
7600	-1050	55445.5	7600	-1050	-17.5	8.8	86.77
7600	-1025	55593.8	7600	-1025	-23.3	6.9	88.69
7600	-1000	56015.9	7600	-1000	-30.6	3.6	80.02
7600	-975	55952.3	7600	-975	-22.5	4.5	76.67
7600	-950	55932.1	7600	-950	-9.5	4.8	76.34
7600	-925	55824.4	7600	-925	-7.6	3.8	77.9
7600	-900	55803.1	7600	-900	-3.4	5	82.71
7600	-875	55419.2	7600	-875	-4.2	2.6	86.87
7600	-850	55406.9	7600	-850	-11.4	-0.7	83.68
7600	-825	55639.7	7600	-825	-10.9	-2.4	81.91
7600	-800	55461.6	7600	-800	-3.5	-2.5	81.26
7600	-775	55479.7	7600	-775	-4.6	-3.7	79.27
7600	-750	55660.1	7600	-750	-2.2	-2.6	80.54
7600	-725	56030.2	7600	-725	-3.4	-2.5	83.69
7600	-700	56229.8	7600	-700	-6.8	-1	89.32
7600	-675	55799.3	7600	-675	-9.2	-2.3	89.86
7600	-650	55545.9	7600	-650	-15.7	-5.3	88.27
7600	-625	55110.3	7600	-625	-16.4	-5.5	83.92
7600	-600	55017.9	7600	-600	-9.1	-3	84.03
7600	-575	54148.2	7600	-575	-11.6	-3.7	93.9
7600	-550	53899	7600	-550	-18.7	-0.3	96.57
7600	-525	54713.6	7600	-525	-34.2	6.6	99.88
7600	-500	54845.5	7600	-500	-36.5	9.6	91.36
7600	-475	54791.8	7600	-475	-39.8	7.9	82.21
7600	-450	55379.6	7600	-450	-35.8	5.9	79.35
7600	-425	56938.5	7600	-425	-35.2	2.1	75.24
7600	-400	54310.6	7600	-400	-24.3	0.9	68.83
7600	-375	55363.4	7600	-375	-11.2	4.6	67.25
7600	-350	55250.6	7600	-350	-3.4	3.8	77.31
7600	-325	55674.8	7600	-325	-1.4	0.5	70.89
7600	-300	53892.4	7600	-300	29.1	9.3	97.81
7600	-275	54540.5	7600	-275	-8.5	-0.3	117.7
7600	-250	54705.1	7600	-250	-23.4	-4.1	76.83
7600	-225	54681	7600	-225	5.4	5.6	78.99
7600	-200	54892	7600	-200	-4.5	3.8	107.9
7600	-175	55790.7	7600	-175	-23.3	3.6	97.26
7600	-150	56491.2	7600	-150	-27.4	1.4	93.35
7600	-125	52760.6	7600	-125	-16.4	3.6	85.38
7600	-100	59378.3	7600	-100	-20.3	0.8	93.09
7600	-75	56739.6	7600	-75	-24.8	-2.7	83.48
7600	-50	55635.2	7600	-50	1.3	9.8	88.06
7600	-25	57075.8	7600	-25	-7.4	7.1	109
7600	0	57497.4	7600	0	-34.7	0.1	110.5
7600	25	61330.3					
7600	50	58880.6					
7600	75	57727.8					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7600	100	54901.6					
7600	125	56719.6					
7600	150	56362.7					
7600	175	59579.4					
7600	200	58571.9					
7600	225	53694.2					
7600	250	53224.3					
7600	275	56709.8					
7600	300	55333.7					
7600	325	55424					
7600	350	55009.2					
7600	375	54820.5					
7600	400	55388.9					
7600	425	55740.4					
7600	450	54290.9					
7600	475	53408.8					
7600	500	52908.5					
7800	-2000	55385.7	7800	-2000	1.3	0.8	113.5
7800	-1975	55456.2	7800	-1975	1.5	3.1	108.8
7800	-1950	55361.5	7800	-1950	9.1	4.3	110
7800	-1925	55294.4	7800	-1925	11.3	6.4	111.4
7800	-1900	55189	7800	-1900	11.4	10.5	112.6
7800	-1875	55139	7800	-1875	14.7	16.2	113.8
7800	-1850	55236.8	7800	-1850	15.7	17.1	129.2
7800	-1825	55358.3	7800	-1825	7.3	12.7	133.3
7800	-1800	55342.6	7800	-1800	1	6.5	130.1
7800	-1775	55300.8	7800	-1775	-0.3	3.5	126.3
7800	-1750	55170.2	7800	-1750	0.5	-1.1	124.6
7800	-1725	55036.4	7800	-1725	4.4	-1.2	124.4
7800	-1700	54997.3	7800	-1700	5.9	-0.3	128.2
7800	-1675	55279.1	7800	-1675	7.4	8.2	132.6
7800	-1650	55502.5	7800	-1650	6.9	14.1	141.1
7800	-1625	55791	7800	-1625	4.1	18.1	142.8
7800	-1600	56105.8	7800	-1600	4.2	18.9	139.8
7800	-1575	55943.8	7800	-1575	1	14.9	138.3
7800	-1550	56149.8	7800	-1550	-1.5	12.2	129.1
7800	-1525	55984.8	7800	-1525	6.4	7.5	118.7
7800	-1500	55145.8	7800	-1500	19.3	5.2	124.2
7800	-1475	55702.2	7800	-1475	19.2	4	137.7
7800	-1450	56035.9	7800	-1450	14.4	4.3	140.1
7800	-1425	55997.8	7800	-1425	15.6	1	139.8
7800	-1400	56032.7	7800	-1400	21.8	-2.2	141.3
7800	-1375	55817	7800	-1375	25.4	-4.1	149.3
7800	-1350	55620.7	7800	-1350	21.6	-2.5	161.5
7800	-1325	55671.7	7800	-1325	17.6	2.5	164.6
7800	-1300	55801.3	7800	-1300	11.7	8.2	163.4
7800	-1275	55840.5	7800	-1275	8.3	11	94.31
7800	-1250	55778.7	7800	-1250	9.4	11.5	92.13
7800	-1225	55744.1	7800	-1225	9.2	12.6	90.63
7800	-1200	55714.4	7800	-1200	7.2	12.7	88.68

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7800	-1175	55866.7	7800	-1175	6.8	13.8	85.43
7800	-1150	55785.7	7800	-1150	7.6	11.4	84.83
7800	-1125	55462.8	7800	-1125	9.1	9.2	84.55
7800	-1100	55531.9	7800	-1100	9.4	9.1	86.45
7800	-1075	55610.5	7800	-1075	10.9	5.4	84.38
7800	-1050	55270.8	7800	-1050	10	1.1	84.69
7800	-1025	55213.3	7800	-1025	11.7	-0.8	85.37
7800	-1000	55294.9	7800	-1000	8.2	-0.9	89.31
7800	-975	55887.7	7800	-975	7.7	0.2	87.57
7800	-950	56284.9	7800	-950	11.8	-1.3	85.17
7800	-925	55972.6	7800	-925	16.1	-3.8	92.88
7800	-900	55496	7800	-900	13.9	-5.4	95.88
7800	-875	55080	7800	-875	7.2	-4.3	97.27
7800	-850	55057.8	7800	-850	-2.2	2.9	94.96
7800	-825	55344.9	7800	-825	-11	3.6	88.68
7800	-800	55413.9	7800	-800	-8.3	6.3	80.59
7800	-775	55326.6	7800	-775	-2	3.8	79.89
7800	-750	54951.4	7800	-750	3	4.3	82.43
7800	-725	54770.1	7800	-725	0	6.1	88.18
7800	-700	55289.6	7800	-700	-4.6	9.8	86.4
7800	-675	55314.3	7800	-675	-5.8	12.5	88.12
7800	-650	55470.5	7800	-650	-10	13	85.96
7800	-625	55612.3	7800	-625	-13.3	12.7	85.32
7800	-600	55546.1	7800	-600	-18.3	11.7	87.56
7800	-575	56048.8	7800	-575	-24.2	9.2	79.99
7800	-550	56251.1	7800	-550	-24.8	5.3	71.18
7800	-525	55988.1	7800	-525	-11.8	8.1	67.84
7800	-500	56665.3	7800	-500	-13.9	4.3	62.88
7800	-475	55708.9	7800	-475	-5.2	4.3	61.1
7800	-450	55417.8	7800	-450	10.1	6.7	59.68
7800	-425	55550.9	7800	-425	17	3.3	66.02
7800	-400	55424.3	7800	-400	22.9	2.5	70.72
7800	-375	54859.1	7800	-375	20.3	-2.9	75.37
7800	-350	55136.8	7800	-350	21.5	-4.8	76.45
7800	-325	55331.7	7800	-325	22.4	-6.2	86.22
7800	-300	55493.8	7800	-300	16.2	-5.4	91.25
7800	-275	55653.3	7800	-275	10.4	-2.5	90.67
7800	-250	55365.9	7800	-250	9.3	-0.6	92.3
7800	-225	55501.3	7800	-225	2.2	2.3	93.74
7800	-200	55946.7	7800	-200	-0.8	5.8	89.19
7800	-175	56235.6	7800	-175	4.1	5.7	91.4
7800	-150	56444.5	7800	-150	3.6	4.6	92.55
7800	-125	56807.1	7800	-125	2.3	4.9	94.05
7800	-100	56400.1	7800	-100	-0.3	6	94.55
7800	-75	55380.8	7800	-75	-2.9	7.4	94.49
7800	-50	55304.2	7800	-50	-8.3	10.3	89.89
7800	-25	55314.4	7800	-25	-7.1	11.8	86.51
7800	0	55943.5	7800	0	-12	12.5	81.53
7800	25	54913.2					
7800	50	54508.7					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
7800	75	54369.8					
7800	100	54388					
7800	125	54814.7					
7800	150	55159.6					
7800	175	54778.6					
7800	200	54826.8					
7800	225	54968.3					
7800	250	55244.2					
7800	275	54552.8					
7800	300	54330.6					
7800	325	53502.8					
7800	350	54558.5					
7800	375	53773					
7800	400	53836					
7800	425	53170.3					
7800	450	52562.3					
7800	475	52463.3					
7800	500	52515					
8000	-2000	55391.3	8000	-2000	-13.4	-0.5	115.3
8000	-1975	55372	8000	-1975	-14.3	-0.9	114.7
8000	-1950	55273.6	8000	-1950	-17.9	-1.3	113.9
8000	-1925	55172.2	8000	-1925	-18.9	-0.9	109
8000	-1900	55098.1	8000	-1900	-18.6	0.2	109.3
8000	-1875	55032.4	8000	-1875	-20.4	-2	107.1
8000	-1850	54940.3	8000	-1850	-20.9	-2.4	105.5
8000	-1825	54972.6	8000	-1825	-25.1	-4.7	103.1
8000	-1800	54808.9	8000	-1800	-25	-5.6	91.81
8000	-1775	54822.9	8000	-1775	-24.9	-4.8	91.84
8000	-1750	54740.4	8000	-1750	-23.6	-4.6	84.97
8000	-1725	54877.9	8000	-1725	-19.1	-0.4	81.24
8000	-1700	55001.6	8000	-1700	-15.3	1.2	81.65
8000	-1675	55080.3	8000	-1675	-14.3	4.2	83.61
8000	-1650	55115.7	8000	-1650	-14.8	5	82.33
8000	-1625	54892.3	8000	-1625	-15.2	9	78.53
8000	-1600	55183.3	8000	-1600	-10.8	10	75.07
8000	-1575	55234	8000	-1575	-11	7.9	76.07
8000	-1550	55201.8	8000	-1550	-14.3	7.3	75.56
8000	-1525	55507.1	8000	-1525	-11.1	7.1	66.84
8000	-1500	55782.7	8000	-1500	8.6	2.5	58.97
8000	-1475	55793.1	8000	-1475	14.9	2.6	75.3
8000	-1450	55693.8	8000	-1450	1.8	4.6	82.35
8000	-1425	55613.2	8000	-1425	-2.8	5.9	84.29
8000	-1400	55590.1	8000	-1400	-5.1	8.2	85.23
8000	-1375	55441.7	8000	-1375	-6.8	9.3	82.94
8000	-1350	55516.9	8000	-1350	-5.7	10.8	85.87
8000	-1325	55584.9	8000	-1325	-8.7	13.9	89.22
8000	-1300	55539.2	8000	-1300	-14.9	17.1	95.94
8000	-1275	55881.4	8000	-1275	-23.4	19.9	97.61
8000	-1250	56056.9	8000	-1250	-27.7	21.4	95.74
8000	-1225	56195.7	8000	-1225	-36.1	19.1	76.5

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
8000	-1200	56242.8	8000	-1200	-43.1	15	69.6
8000	-1175	56131.8	8000	-1175	-44.2	6.8	58.34
8000	-1150	56780.2	8000	-1150	-33.8	5.7	52.84
8000	-1125	55946.1	8000	-1125	-17.5	13.6	49.24
8000	-1100	55722	8000	-1100	-6.6	17.9	51.02
8000	-1075	54378.8	8000	-1075	6.8	20	53.53
8000	-1050	54954	8000	-1050	20.4	21.4	57.09
8000	-1025	54307.3	8000	-1025	19.3	9.3	68.78
8000	-1000	54412.7	8000	-1000	4.9	2.9	78.49
8000	-975	55169	8000	-975	-11.1	-2	83.82
8000	-950	56098.6	8000	-950	-24.8	-7.6	74.22
8000	-925	55358.6	8000	-925	-16.3	-7	80.57
8000	-900	55320.2	8000	-900	3.8	1.1	82.94
8000	-875	55195.3	8000	-875	5.7	2.2	105.2
8000	-850	55046.8	8000	-850	-4.8	2.2	123.7
8000	-825	55502.8	8000	-825	-49.5	-0.5	114.4
8000	-800	56116.5	8000	-800	-42	6.6	70.73
8000	-775	56567.7	8000	-775	-39.5	-3	71.62
8000	-750	55944.6	8000	-750	-21.2	5.1	66.62
8000	-725	55709.5	8000	-725	-10.5	5.6	66.75
8000	-700	55834.4	8000	-700	-2.7	6.4	70.23
8000	-675	55370.8	8000	-675	-1.7	1.6	72.16
8000	-650	55530.3	8000	-650	-1.8	-1.8	75.31
8000	-625	55955.8	8000	-625	-7.7	-9.1	70.87
8000	-600	56182.7	8000	-600	6.9	-3.9	70.86
8000	-575	55668.9	8000	-575	17.5	-2.7	74.02
8000	-550	54719.5	8000	-550	13.8	-5.1	91.57
8000	-525	54389.6	8000	-525	-9.6	-4.9	103.1
8000	-500	55019.7	8000	-500	-28.8	-1.2	95.78
8000	-475	56421.2	8000	-475	-43.7	-4.1	81.92
8000	-450	57248.6	8000	-450	-30.9	-8.3	63.46
8000	-425	55567.3	8000	-425	-6.8	-1.2	63.85
8000	-400	54856.6	8000	-400	-6.9	-2.2	65.17
8000	-375	54592.1	8000	-375	-5.7	-1.9	67.35
8000	-350	54626.5	8000	-350	-8.4	-1.9	69.56
8000	-325	54938.1	8000	-325	-14.6	-2.3	74.34
8000	-300	54666.3	8000	-300	-19.2	-4.4	68.74
8000	-275	55024.3	8000	-275	-10.5	-5.3	62.7
8000	-250	55595.9	8000	-250	-1.6	-5.2	77.54
8000	-225	56401.2	8000	-225	-14.9	-11	80.17
8000	-200	55976.6	8000	-200	3.3	-14.1	73.79
8000	-175	55460.5	8000	-175	1.7	-12.2	83.36
8000	-150	55813.1	8000	-150	-14.2	-6.9	87.29
8000	-125	58148.7	8000	-125	-33.8	-1.2	80.85
8000	-100	59278	8000	-100	-35.5	-1.6	72.15
8000	-75	60423.5	8000	-75	-20.2	2	80.27
8000	-50	61606.8	8000	-50	-32.1	4.1	101.6
8000	-25	61794.8	8000	-25	-57.2	-2.1	91.87
8000	0	60099.9	8000	0	-39.7	2.7	74.14
8000	25	55797.1					

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
8000	50	56104.5					
8000	75	57337					
8000	100	55575.6					
8000	125	53799.5					
8000	150	53400.3					
8000	175	54210.2					
8000	200	54608.7					
8000	225	54972.3					
8000	250	54388.4					
8000	275	54793.4					
8000	300	54063.6					
8000	325	53218.4					
8000	350	52540.1					
8000	375	52164.6					
8000	400	52437					
8000	425	52726.5					
8000	450	52895.5					
8000	475	53122.5					
8000	500	53168					
8200	-2000	55441	8200	-2000	2.7	1.4	115.1
8200	-1975	55476.7	8200	-1975	1	1.3	114.9
8200	-1950	55404.8	8200	-1950	1.5	2.5	112.6
8200	-1925	55332	8200	-1925	4.6	3.7	112.7
8200	-1900	55257.5	8200	-1900	4.5	2	114
8200	-1875	55292.6	8200	-1875	4.2	1.9	116.2
8200	-1850	55236.4	8200	-1850	2.1	2.2	117.1
8200	-1825	55373.9	8200	-1825	2.4	4.7	114.5
8200	-1800	55379.7	8200	-1800	4.5	3.8	114.3
8200	-1775	55364.1	8200	-1775	4.8	3.1	116.7
8200	-1750	55396.7	8200	-1750	3	1.9	118.7
8200	-1725	55300.8	8200	-1725	1.6	0.2	121.4
8200	-1700	55509.1	8200	-1700	1	0.7	120.9
8200	-1675	55518	8200	-1675	-2.2	0.4	123.1
8200	-1650	55507.9	8200	-1650	-3.5	0.5	119.9
8200	-1625	55418.7	8200	-1625	-2.9	0.7	117.2
8200	-1600	55357.9	8200	-1600	-3.6	1.1	116.4
8200	-1575	55203.3	8200	-1575	-4.7	-0.6	115.5
8200	-1550	55094.7	8200	-1550	-4.1	2.4	110.2
8200	-1525	55078.4	8200	-1525	-0.2	6.9	105
8200	-1500	55012.9	8200	-1500	2.5	5.4	104.4
8200	-1475	55015.9	8200	-1475	6	2.8	98.96
8200	-1450	54418.5	8200	-1450	16.8	-4.3	80.08
8200	-1425	54465.9	8200	-1425	59.7	7.3	97.92
8200	-1400	54894.5	8200	-1400	38.9	7.8	130.2
8200	-1375	54978.3	8200	-1375	15.1	5.4	139.7
8200	-1350	54939.9	8200	-1350	10.9	9.3	135.7
8200	-1325	54893.2	8200	-1325	10.6	10.6	136.7
8200	-1300	54979	8200	-1300	9.4	14.6	137.3
8200	-1275	55103	8200	-1275	8.8	17.9	141.9
8200	-1250	55065.3	8200	-1250	3.5	21.8	153.3

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
8200	-1250	55064	8200	-1250	2.8	23	144
8200	-1225	55238.9	8200	-1225	0.2	23.3	149
8200	-1200	55260.7	8200	-1200	-2.7	21.4	138.7
8200	-1175	54969.5	8200	-1175	0.4	19.9	140.4
8200	-1150	55108.2	8200	-1150	-13.2	14.7	145.4
8200	-1125	55378	8200	-1125	-23.2	9.6	120.8
8200	-1100	55173.1	8200	-1100	-0.4	14.3	103.3
8200	-1075	54960.1	8200	-1075	10.2	11.5	105.4
8200	-1050	55226.7	8200	-1050	19.5	6.7	105.3
8200	-1025	54202.9	8200	-1025	32.9	4.3	114.9
8200	-1000	55002.8	8200	-1000	30.4	0.2	131.2
8200	-975	55285	8200	-975	25.5	-0.8	144.6
8200	-950	55038.7	8200	-950	21.7	-1	151.6
8200	-925	54793.7	8200	-925	21.2	2	163.9
8200	-900	54972.8	8200	-900	17	5.9	178.1
8200	-875	55669.7	8200	-875	1.9	13.8	191.3
8200	-850	55911.6	8200	-850	-14.5	17.6	185
8200	-825	56365.8	8200	-825	-31.8	16.3	167.1
8200	-800	56967.7	8200	-800	-40.7	7.6	113.8
8200	-775	55710.8	8200	-775	-21	6.2	100.7
8200	-750	55795.1	8200	-750	-12.7	5.3	95.28
8200	-725	56073.2	8200	-725	-3.6	3.4	94.17
8200	-700	55538.5	8200	-700	9	4	97.07
8200	-675	55644.9	8200	-675	16.3	0	99.9
8200	-650	55321.4	8200	-650	26.5	3	105.3
8200	-625	54762.6	8200	-625	43.3	6.1	126.5
8200	-600	54102.7	8200	-600	36.3	2.8	169.6
8200	-575	54443.1	8200	-575	3.1	0.3	173.7
8200	-550	54820.9	8200	-550	-16.7	-0.2	153.1
8200	-525	55075.1	8200	-525	-7.9	3.7	119.1
8200	-500	54896.4	8200	-500	-2.9	0.2	119.6
8200	-475	54888	8200	-475	-2.4	-0.2	125.9
8200	-450	54678.7	8200	-450	-9.9	-3.8	126.3
8200	-425	54718.4	8200	-425	-2.5	-3.2	117.4
8200	-400	55094.1	8200	-400	-11.1	-7.3	128.7
8200	-375	57054.2	8200	-375	-26.5	-22.4	108
8200	-350	57198.2	8200	-350	19.2	-5.2	103.3
8200	-325	55929.9	8200	-325	11	-11.8	119.8
8200	-300	55405.5	8200	-300	10.7	-17.2	123.8
8200	-275	54930.8	8200	-275	11.3	-15.8	141
8200	-250	54581.8	8200	-250	6.1	-10.7	144.5
8200	-225	54714.2	8200	-225	-11.4	-6.3	144.4
8200	-200	56029.6	8200	-200	-17.9	-9.2	122.8
8200	-175	55839	8200	-175	-6.2	-4.2	120
8200	-150	58577.8	8200	-150	-9	-1.7	124.5
8200	-125	60842.2	8200	-125	-19.7	-6.3	122.9
8200	-100	58497.5	8200	-100	-12.9	-5.7	108.5
8200	-75	59579.2	8200	-75	-5.9	-3.2	103.6
8200	-50	60954.7	8200	-50	-0.5	-6.3	98.2
8200	-25	58041	8200	-25	21.4	-2.7	103.5

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
8200	0	55231.7	8200	0	22.6	-1.3	123.4
8200	25	53574.2					
8200	50	53772.4					
8200	75	55596.8					
8200	100	56675.9					
8200	125	55619.9					
8200	150	55398.1					
8200	175	54495.3					
8200	200	53856.6					
8200	225	54287.6					
8200	250	56417.4					
8200	275	55979.9					
8200	300	52531					
8200	325	52277.5					
8200	350	52928.3					
8200	375	53052.9					
8200	400	53252.6					
8200	425	53322.2					
8200	450	53349.5					
8200	475	53378.5					
8200	500	53375.2					
8400	-2000	55218.2	8400	-2000	-20.2	-2.1	126
8400	-1975	55266.2	8400	-1975	-17.8	2.3	125.8
8400	-1950	55308.3	8400	-1950	-17.7	1.2	128.9
8400	-1925	55348.4	8400	-1925	-19.1	-0.7	128.3
8400	-1900	55258.8	8400	-1900	-17.9	-1.5	125
8400	-1875	55325.8	8400	-1875	-15.3	1.9	124.7
8400	-1850	55374.4	8400	-1850	-17.8	-1	128.8
8400	-1825	55264.7	8400	-1825	-16.4	-0.3	126.1
8400	-1800	55306.4	8400	-1800	-16.9	0.4	126.9
8400	-1775	55376.7	8400	-1775	-15	2	122.3
8400	-1750	55519.9	8400	-1750	-14.5	2.1	133.3
8400	-1725	55292.9	8400	-1725	-17.1	-2.6	135
8400	-1700	55356.9	8400	-1700	-20	-5.5	133.7
8400	-1675	55569.1	8400	-1675	-11.1	1.8	132.9
8400	-1650	55637	8400	-1650	-16.3	-1.7	140.6
8400	-1625	55761.3	8400	-1625	-20.1	-3	134.9
8400	-1600	55836	8400	-1600	-22.7	-3.3	131.8
8400	-1575	55846.9	8400	-1575	-22.1	-1.6	124.3
8400	-1550	55905.7	8400	-1550	-19.8	2.1	125.1
8400	-1525	55920.2	8400	-1525	-19.4	4.2	125.7
8400	-1500	55957.9	8400	-1500	-22.4	4.6	124.5
8400	-1475	56013	8400	-1475	-23.8	4.5	124.5
8400	-1450	56277.7	8400	-1450	-34.2	1.8	131.9
8400	-1425	57348.8	8400	-1425	-31.7	-8	83.61
8400	-1400	56389.1	8400	-1400	30.3	3.6	92.79
8400	-1375	55982	8400	-1375	0.2	-0.8	144.9
8400	-1350	55798.1	8400	-1350	-21.5	0	149.7
8400	-1325	55624.7	8400	-1325	-25.6	1.7	119.2
8400	-1300	55819.7	8400	-1300	-10.9	2.6	113.9

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
8400	-1275	55408.7	8400	-1275	-12.1	2.2	126.3
8400	-1250	55338.8	8400	-1250	-19.4	1.8	119.4
8400	-1225	55254.7	8400	-1225	7.4	8.5	124.2
8400	-1200	54510.6	8400	-1200	-18.7	2.6	141.3
8400	-1175	54425.2	8400	-1175	-20	6.4	120.9
8400	-1150	54200.4	8400	-1150	-19.5	5.1	120.1
8400	-1125	54502.7	8400	-1125	-27.1	-4.7	104.9
8400	-1100	54878	8400	-1100	2.7	3.7	90.53
8400	-1075	53750.1	8400	-1075	9.6	2.2	101.2
8400	-1050	53742.6	8400	-1050	7.9	-5.1	116.3
8400	-1025	53917.9	8400	-1025	4.4	-9.5	127.8
8400	-1000	54084.8	8400	-1000	2.5	-4.9	144.4
8400	-975	54198.5	8400	-975	-8.2	2.6	155.2
8400	-950	54809.7	8400	-950	-19.7	12.1	155.8
8400	-925	55366.9	8400	-925	-19.4	17.8	147.7
8400	-900	55143.7	8400	-900	-16.8	15.6	163.1
8400	-875	55724.5	8400	-875	-30	13.6	161.9
8400	-850	55653.5	8400	-850	-42.4	6.9	164.9
8400	-825	55577.1	8400	-825	-44.3	3.7	116
8400	-800	54273.2	8400	-800	-32.4	4.7	109.1
8400	-775	56853.2	8400	-775	-26.4	5.4	112.8
8400	-750	57023.2	8400	-750	-18.5	4.6	110.1
8400	-725	54112.6	8400	-725	-6.8	4.3	101.3
8400	-700	54569.2	8400	-700	2.8	6.7	100.3
8400	-675	55575.1	8400	-675	13.5	10.9	114.2
8400	-650	54320.8	8400	-650	11.9	4.9	175.3
8400	-625	54938.5	8400	-625	-22.8	4.1	176.5
8400	-600	55146	8400	-600	-42.5	-3.6	140.5
8400	-575	54515.5	8400	-575	-35.7	-1.3	139.8
8400	-550	54284.2	8400	-550	-42.3	-0.9	138.9
8400	-525	55036.8	8400	-525	-42.4	-4	117.8
8400	-500	54909.9	8400	-500	-24.9	-0.9	109.5
8400	-475	54732.4	8400	-475	-25.3	-3.6	121.3
8400	-450	54472.4	8400	-450	-33.5	-14.9	113.4
8400	-425	53478.3	8400	-425	-13.7	-4.7	99.74
8400	-400	54603.7	8400	-400	-3.8	-0.4	108.1
8400	-375	53889.6	8400	-375	-5.8	-7.2	111.2
8400	-350	53393.1	8400	-350	4.6	-4.2	124.5
8400	-325	53887.7	8400	-325	-12.2	-9.2	139.9
8400	-300	53754.4	8400	-300	-14	-6.4	149.7
8400	-275	53837.5	8400	-275	-25.1	-5	152.1
8400	-250	54209.7	8400	-250	-37.1	-8.2	131.6
8400	-225	54436.5	8400	-225	-36.4	-12	105.3
8400	-200	55055.9	8400	-200	-21.3	-7.9	98.69
8400	-175	55084.7	8400	-175	-7.7	-4.8	92.85
8400	-150	54540	8400	-150	7.6	-0.8	109.7
8400	-125	54960	8400	-125	1.1	-4.8	122.4
8400	-100	55712.4	8400	-100	-9	-5.9	119
8400	-75	55589.9	8400	-75	2.4	-3.6	104.2
8400	-50	55803.5	8400	-50	4	-4.7	118.6

Line	Station	Mag	Line	Station	Inphase	Quad.	T.FLD
8400	-25	55765.3	8400	-25	5.3	-2	123.8
8400	0	55090.1	8400	0	-3.2	-1.4	139.8
8400	25	55596.8					
8400	50	56675.9					
8400	75	55619.9					
8400	100	55398.1					
8400	125	54495.3					
8400	150	53856.6					
8400	175	54287.6					
8400	200	56417.4					
8400	225	55979.9					
8400	250	52531					
8400	275	52277.5					
8400	300	52928.3					
8400	325	53052.9					
8400	350	53252.6					
8400	375	53322.2					
8400	400	53349.5					
8400	425	53378.5					
8400	450	53375.2					
8400	475	53390.4					
8400	500	53451.7					

APPENDIX 2

ANALYTICAL RESULTS

ITS Intertek Testing Services
Bondar Clegg

Vancouver, B.C. Canada

* U R G E N T & C O N F I D E N T I A L *

To: RIO MINERALS LTD.
Attention :
Reference :
Submitter : A. MOLNAR

Our Fax No: (604) 985-1071
Your Fax No: 871-0231
Number of Pages : 5 including this page.

Report : V00-00180.0 Status : COMPLETE Total number of samples : 5

Element	Method	Totl	Element	Method	Totl	Element	Method	Totl
Au30	30g Fire Assay - AA	5	AuRewi		1	Au Wtl	FIRE ASSAY-AA	5
Ag	INDUC. COUP. PLASMA	5	Cu	INDUC. COUP. PLASMA	5	Pb	INDUC. COUP. PLASMA	5
Zn	INDUC. COUP. PLASMA	5	Mo	INDUC. COUP. PLASMA	5	Ni	INDUC. COUP. PLASMA	5
Co	INDUC. COUP. PLASMA	5	Cd	INDUC. COUP. PLASMA	5	Bi	INDUC. COUP. PLASMA	5
As	INDUC. COUP. PLASMA	5	Sb	INDUC. COUP. PLASMA	5	Fe	INDUC. COUP. PLASMA	5
Mn	INDUC. COUP. PLASMA	5	Te	INDUC. COUP. PLASMA	5	Ba	INDUC. COUP. PLASMA	5
Cr	INDUC. COUP. PLASMA	5	V	INDUC. COUP. PLASMA	5	Sn	INDUC. COUP. PLASMA	5
W	INDUC. COUP. PLASMA	5	La	INDUC. COUP. PLASMA	5	Al	INDUC. COUP. PLASMA	5
Mg	INDUC. COUP. PLASMA	5	Ca	INDUC. COUP. PLASMA	5	Na	INDUC. COUP. PLASMA	5
K	INDUC. COUP. PLASMA	5	Sr	INDUC. COUP. PLASMA	5	Y	INDUC. COUP. PLASMA	5
Ga	INDUC. COUP. PLASMA	5	Li	INDUC. COUP. PLASMA	5	Nb	INDUC. COUP. PLASMA	5
Sc	INDUC. COUP. PLASMA	5	Ta	INDUC. COUP. PLASMA	5	Ti	INDUC. COUP. PLASMA	5
Zr	INDUC. COUP. PLASMA	5						

Sample Preparations	Totl	Sample Type	Totl	Size Fraction	Totl	Remarks
DRY, SIEVE -80	5	STREAM SED, SILT	5	-80	5	Please note, variation of results in a stream sediment sample is normal. Stream sediments are very rarely homogeneous and gold results are unlikely to be reproduced.

Notes:

ITS Intertek Testing Services
Bondar Clegg

CLIENT: RIO MINERALS LTD. PROJECT: MURPHY
REPORT: V00-00180.0 (COMPLETE) DATE RECEIVED: 31-JAN-00 DATE PRINTED: 3-FEB-00 PAGE 1A(1/ 4)

SAMPLE NUMBER	ELEMENT UNITS	Au30 PPB	AuRew1 PPB	Au Wt1 GM	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM
T1 SL1		10		30.24	<0.2	41	9	30	<1	32	12	0.4	<5
SL2		7		20.15	<0.2	29	19	99	<1	48	29	0.4	<5
SL3		106	11	25.31	<0.2	32	12	90	<1	39	22	0.4	<5
T1 SL4		9		10.04	<0.2	31	13	86	<1	47	18	0.5	<5
SL5		7		31.10	<0.2	54	9	56	1	70	28	0.6	<5

Intertek Testing Services
Bondar Clegg

IENT: RIO MINERALS LTD. PROJECT: MURPEY
REPORT: V00-00180.0 (COMPLETE) DATE RECEIVED: 31-JAN-00 DATE PRINTED: 3-FEB-00 PAGE 1B(2/ 4)

MPLE NUMBER	ELEMENT UNITS	As PPM	Sb PPM	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT
SL1		<5	<5	2.97	1222	<10	112	41	86	<20	<20	10	1.13
SL2		16	<5	6.13	5059	<10	478	66	113	<20	<20	15	1.80
T1 SL3		11	<5	4.71	4383	<10	389	53	87	<20	<20	12	1.56
SL4		9	<5	3.93	3608	<10	319	50	77	<20	<20	13	1.67
SL5		8	<5	4.46	3098	<10	231	50	99	<20	<20	13	1.73

Intertek Testing Services
Bondar Clegg

CLIENT: RIO MINERALS LTD. PROJECT: MURPHY

REPORT: V00-00180.0 (COMPLETE) DATE RECEIVED: 31-JAN-00 DATE PRINTED: 3-FEB-00 PAGE 1C(3/ 4)

SAMPLE NUMBER	ELEMENT UNITS	Mg PCT	Ca PCT	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT
T1_SL1		0.58	1.09	0.03	0.11	62	7	<2	8	8	<5	<10	0.084
T1_SL2		0.77	1.24	0.05	0.10	128	10	3	9	9	<5	<10	0.095
T1_SL3		0.62	1.12	0.04	0.09	109	8	3	8	6	<5	<10	0.079
T1_SL4		0.71	1.24	0.04	0.11	114	9	3	9	6	<5	<10	0.083
T1_SL5		0.86	1.28	0.04	0.21	85	8	2	14	8	<5	<10	0.110

Intertek Testing Services
Bondar Clegg

CLIENT: RIO MINERALS LTD.
REPORT: V00-00180.0 (COMPLETE)

PROJECT: MURPHY

DATE RECEIVED: 31-JAN-00 DATE PRINTED: 3-FEB-00 PAGE 1D(4/ 4)

SAMPLE NUMBER	ELEMENT UNITS	Zr PPM
T1_SL1		<1
T1 SL2		2
T1 SL3		2
T1 SL4		1
T1 SL5		2

APPENDIX 3

STATEMENT OF COSTS

Rio Minerals Limited
Exploration in the Americas
106-400 Smithe Street
Vancouver, British Columbia
Canada. V6B 5E4
email: explore@telus.net
Telephone: (604) 671-2245
Fax: (604) 662-3734

December 22, 1999

Murphy Lake Project
Statement of Costs

Item	Description	Billing Method	Cost per	Days/km	Total
Linecutting	47 kilometers – linecutting w/ 50m stations, flagged and picketed.	*Per kilometer	525.00	47.0 km	24675.00
Geophysics	40 kilometers of Mag/VLF with Report	*Per kilometer	402.50	40.0 km	16100.00
Geology	4.0 days Geological reconnaissance work.	*Per day	500.00	4.0 days	2000.00
Report	Geological	**Per report	3267.25		3267.25
Geochemical	Reconnaissance geochemical survey: 2-men	* Per day	715.00	3.0 days	2145.00
Assays	5 rock, 9 silt.	Per sample	20.00		280.00
Subtotal					48397.25
Management	Project management/ misc. costs.	Percentage	5%		2409.36
TOTAL					50596.61

* Includes mob/demob, wages, food and accommodation, truck and gas, supplies and rentals, communications, consumables, GPS locations, and GST.

**Includes wages, supplies, consumables, communications, digital database, and GST.

APPENDIX 4

STATEMENT OF QUALIFICATIONS

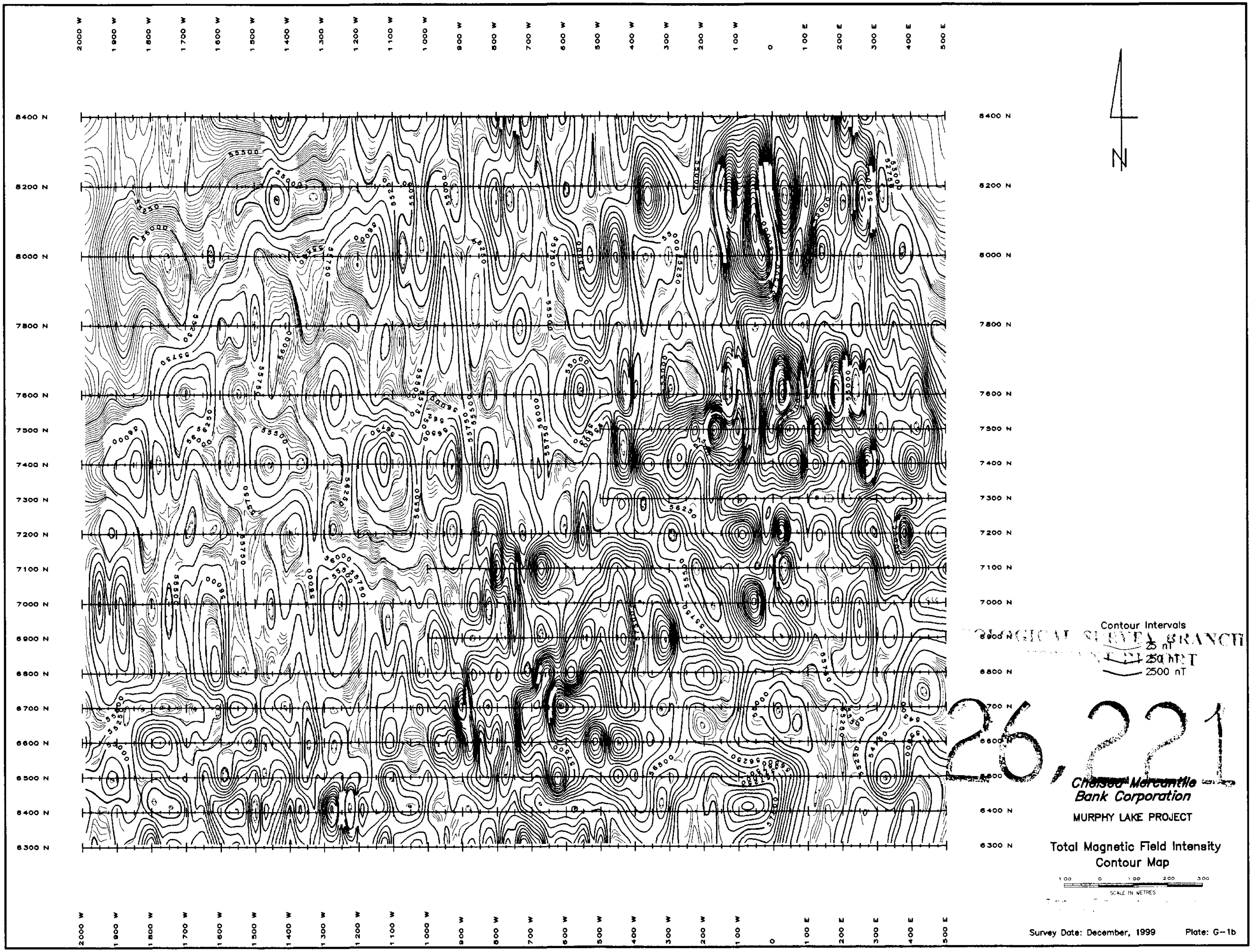
STATEMENT OF QUALIFICATIONS

I, Linda J. Caron, certify that:

1. I am an exploration geologist residing at 717 - 75th Ave (Box 2493), Grand Forks, B.C.
2. I obtained a B.A.Sc. in Geological Engineering (Honours) in the Mineral Exploration Option, from the University of British Columbia (1985).
3. I graduated with an M.Sc. in Geology and Geophysics from the University of Calgary (1988).
4. I have practised my profession since 1987 and have worked in the mineral exploration industry since 1980.
5. I am a member in good standing with the Association of Professional Engineers and Geoscientists of B.C. with professional engineer status.
6. I was contracted by Rio Minerals to complete a review of the available data on the Murphy Lake property and to prepare this report. I have no direct or indirect interest in the property described herein, or in Rio Minerals Ltd or Churchill Resources or their securities, nor do I expect to receive any.

L. Caron
Linda Caron. P. Eng

Dec 28/99
Date



2000 W
1900 W
1800 W
1700 W
1600 W
1500 W
1400 W
1300 W
1200 W
1100 W
1000 W
900 W
800 W
700 W
600 W
500 W
400 W
300 W
200 W
100 W
0
100 E
200 E
300 E
400 E
500 E
8400 N
8200 N
8000 N
7800 N
7600 N
7500 N
7400 N
7300 N
7200 N
7100 N
7000 N
6900 N
6800 N
6700 N
6600 N
6500 N
6400 N
6300 N
N
Contour Intervals
25 nT
250 nT
2500 nT
26,221
Chelsea Mercantile Bank Corporation
MURPHY LAKE PROJECT
Total Magnetic Field Intensity Contour Map
SCALE IN METRES
Survey Date: December, 1999
Plate: G-1b