Property File
104 K 079

Dick Brown

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GOLDEN BEAR MINE

1997 EXPLORATION REPORT

ATLIN MINING DIVISION
NTS 104K/1W
Latitude 58°13' North
Longitude 132°17' West

Owned and Operated by:

NORTH AMERICAN METALS CORP.
#1500 - 700 West Pender Street
Vancouver, B.C.

Written By:

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December 1997

EXECUTIVE SUMMARY

Between May 1 and September 16, 1997 North American Metals Corp. continued exploration efforts on the Golden Bear Mine property. Over this period the following was completed:

- 2497.12 metres of diamond drilling in 9 holes on the Grizzly, Ridge and Limestone Creek Zones.
- 10 trenches totalling 1115 metres were mapped and sampled in the C & C, West and Ridge Zone areas.
- 848 soil samples and 601 prospecting rocks samples were collected from several areas on the property including Highway Creek, Ridge Zone, Totem Silica Zone, Helen Bowl and the C & C Zone.
- Two days were spent evaluating regional exploration targets.
- Reclamation work was carried out on the Golden Bear Mine property and the Bandit property.

The results of these efforts and recommendations for future work are summarized as follows:

- Diamond drilling on the Ridge and Limestone Creek Fault Zones did not return significant gold values and no further work is recommended for these areas. It should be noted however, that potential for economic gold mineralization does exist along strike on both faults from the areas that have been evaluated to date.
- Diamond drilling on the Grizzly Zone indicates that the northerly trending, high grade zone extends for at least 200 metres beyond the currently defined resource. This strike extent requires 50 metre sectional drilling to place it into a resource category, and the entire strike extent of the mineralized zone would need infill drilling on 25 metre spacing to upgrade the resource to reserve status. This could best and most accurately be accomplished from underground, which would necessitate dewatering and extending the Grizzly decline.
- Attempts to locate the source of the C & C Zone float by trenching and further prospecting were unsuccessful. The geology and soil profile geochemistry of the 1997 trenches gave no indication of the source, and it is now felt to be most likely that the mineralized boulders originated from somewhere beneath Sam Glacier and were dropped in their present locations during a recent ice advance.
- Trenching of a coincident gold-arsenic anomaly at the western edge of the soil grid encountered gold mineralization associated with a north-south trending fault zone, from which gold values of up to 1.19 grams per tonne over 10 metres and 2.54 grams per tonne over 6 metres have been obtained. Further trenching is required in this zone in order to determine the extent of mineralization and define potential drill targets.
- An extension to the southwest corner of the soil geochemistry grid has located a multistation gold anomaly that remains open to the west. Additional soil

sampling is required to determine the extent of the anomaly, and prospecting and mapping is needed in order to define potential trenching targets.

- Soil sampling and prospecting in the Highway Creek area, to the northeast of Fleece Bowl, has outlined anomalous gold values for roughly 900 metres along a northerly trending fault that places Permian carbonate rocks in fault contact with Stuhini group volcanics. This geologic environment is very similar to that of the Bear Main deposit. Further mapping and prospecting is recommended for the area, as is a trenching program to investigate the fault contact in areas of the strongest soil geochemistry.
- Two regional targets were identified for investigation at a reconnaissance level. The first of these is an occurrence of Permian carbonate rocks 24 kilometres southeast of the minesite, where two short visits in 1997 returned grab samples of up to 3.33 grams per tonne gold. There is good potential at this site for heap leachable mineralization similar to the oxide deposits at Golden Bear, and the site is within view of the Golden Bear access road. The second target is a valley that lies twenty five kilometres west of the minesite. Government geochemical sampling in this area, which is underlain by Stuhini group volcanics, returned a number of weakly to moderately anomalous gold values. NAMC enjoys a unique advantage in that the Golden Bear minesite, located in the middle of a remote corner of the province, provides abase for very cost effective regional exploration. NAMC should take advantage of this position before operations cease at Golden Bear.

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1.0 INTRODUCTION

The Golden Bear Mine property is located in the Tatsamenie gold camp, which lies approximately 140 kilometres west of Dease Lake in northwestern British Columbia. The property is 100% owned by North American Metals Corp (NAMC), an 82% owned subsidiary of Wheaton River Minerals Ltd.

1.1 SCOPE OF REPORT

This report serves to present the results of the exploration program carried out on the Golden Bear mine property in 1997. Work completed during the field season consisted of the collection of 848 soil samples and 601 rock samples, 1115 metres of trenching and 2497.11 metres of diamond drilling in 9 HQ and NQ holes.

1.2 LOCATION, ACCESS AND PHYSIOGRAPHY

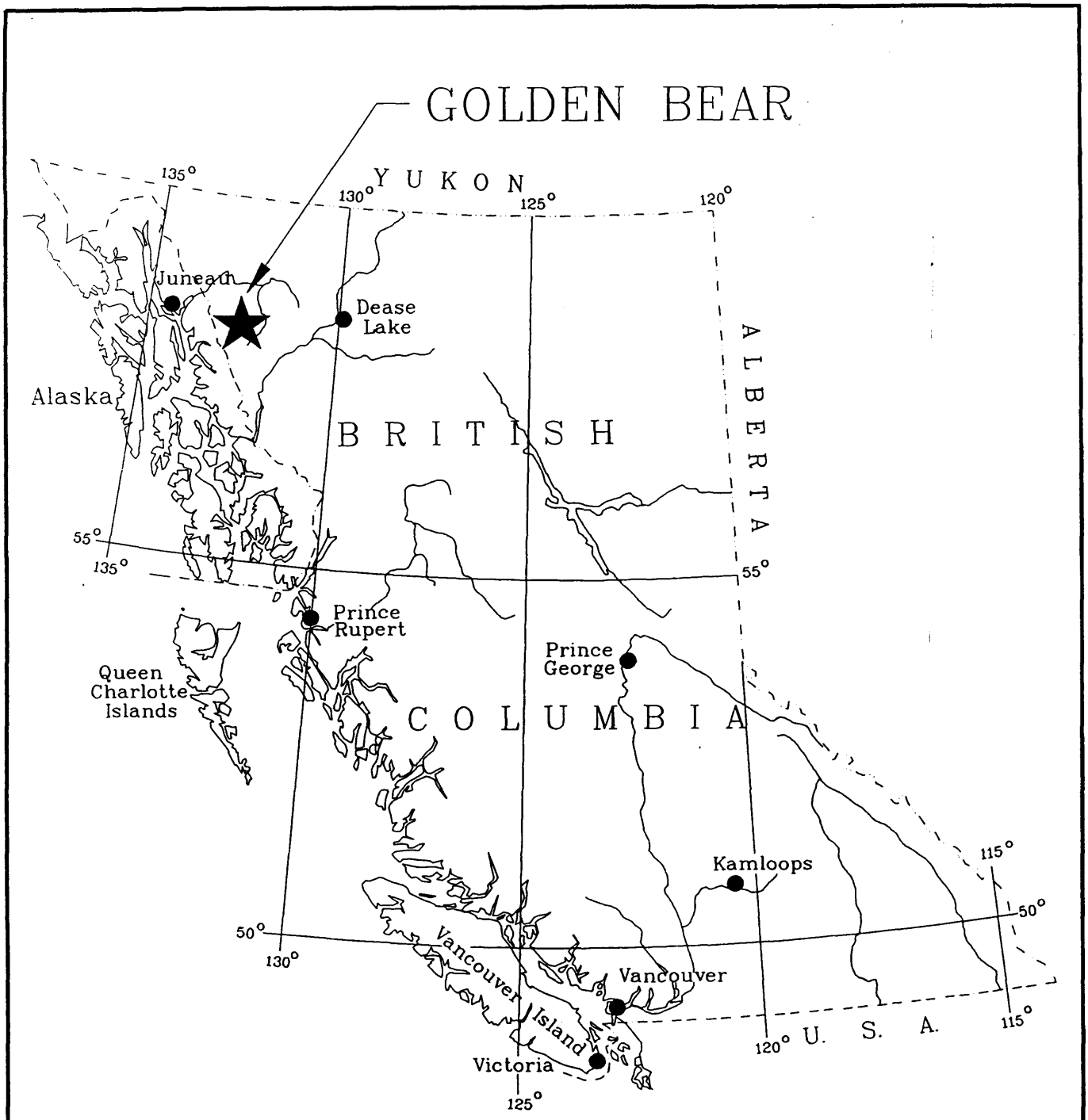
The Golden Bear Mine is located in northwestern British Columbia in the Atlin Mining Division near 132°17' west and 58°13' north. The project area occurs on the Tulsequah (104K) and Bearskin Lake (104K/1) mapsheets. The town of Dease Lake lies 140 kilometres to the east and Juneau, Alaska is 100 kilometres to the west (see Figure 1.2-1).

The mine property lies within moderately rugged terrain on the eastern side of the Chechidla Range of the Coast Mountains, where elevations range from 600 to 2200 metres. Treeline is at roughly 1100 metre elevation with little or no vegetation other than grass occurring above this point. Lower slopes are forested with dense spruce, pine and alder. Glaciers and permanent snow are present but not abundant, however snow melts slowly on western and northern facing slopes where surface exploration can only be effectively conducted between July and mid-September.

Access to the Golden Bear property can be gained by two wheel drive road, fixed wing aircraft or helicopter. Access by road is gained by public road for 80 kilometres west from Dease Lake and then by an all-weather private access road extending 155 kilometres northwest from near Telegraph Creek. A 1500 metre gravel airstrip is present at the minesite to accommodate small fixed wing aircraft. Contract helicopter service is available based out of Dease Lake. For safety reasons use of both the mine access road and the airstrip is restricted. Once at the minesite the property can be accessed by a number of all weather gravel and four-wheel drive exploration roads.

1.3 LAND TENURE

The Golden Bear Mine property consists of a total of 31,136.13 hectares of contiguous mineral claims and mining leases as shown on Figure 1.3-1. This land position comprises what is known as the Tatsamenie Gold



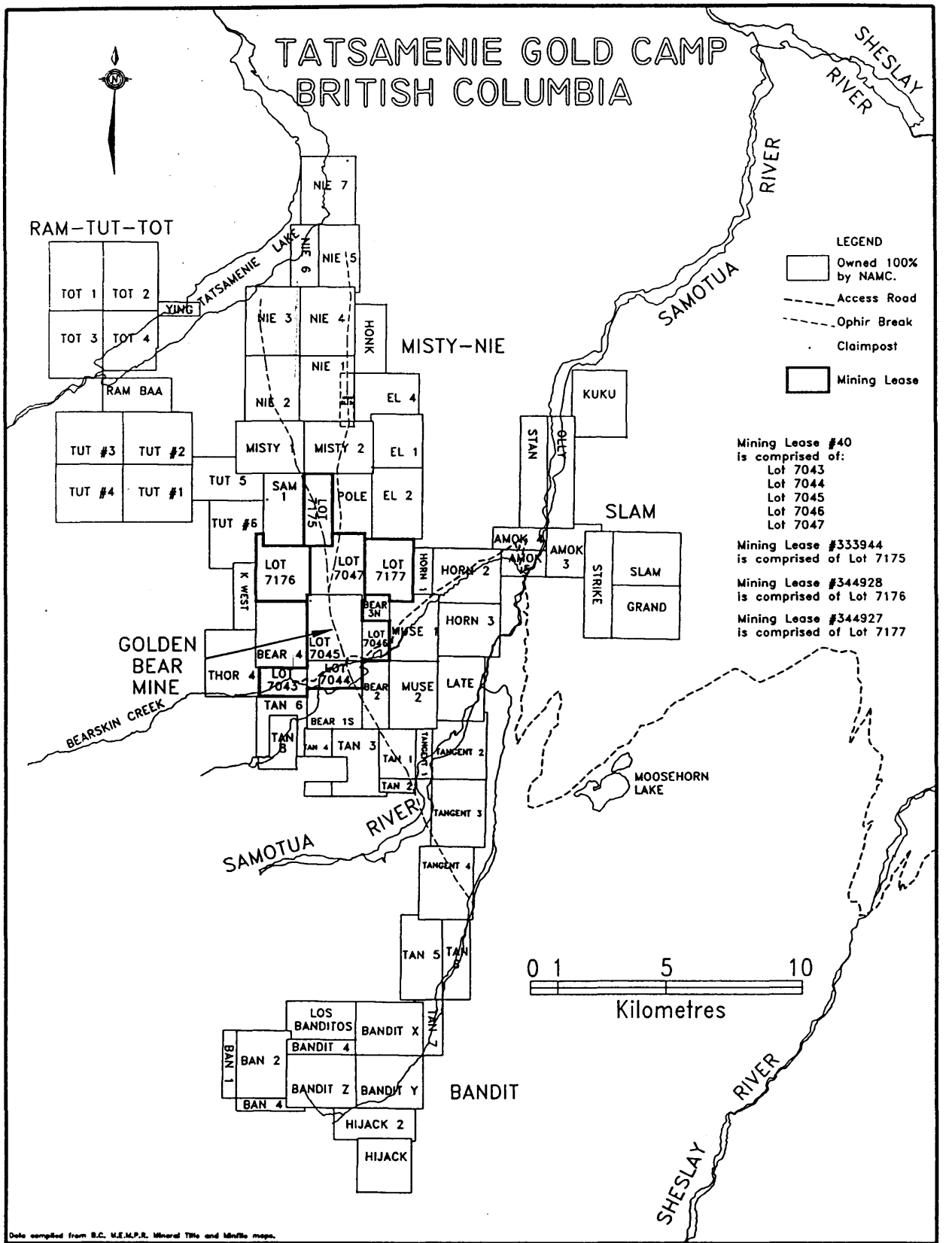
NORTH AMERICAN METALS CORP.

GOLDEN BEAR

LOCATION MAP

N.T.S.: 104 K

Figure: 1.2–1



NORTH AMERICAN METALS CORP.

GOLDEN BEAR PROPERTY

CLAIM MAP

N.T.S.: 104 K

Figure 1.3–1

Camp and includes a number of outlying properties in addition to the central mine area. The mineral claims consist of 1130 modified grid claim units totalling 28,620.13 hectares. A majority of these claims are in good standing until the year 2000 or later. The property also includes four mining leases totalling 2,516 hectares. Each lease has a primary term of 30 years and is subject to an annual rental fee.

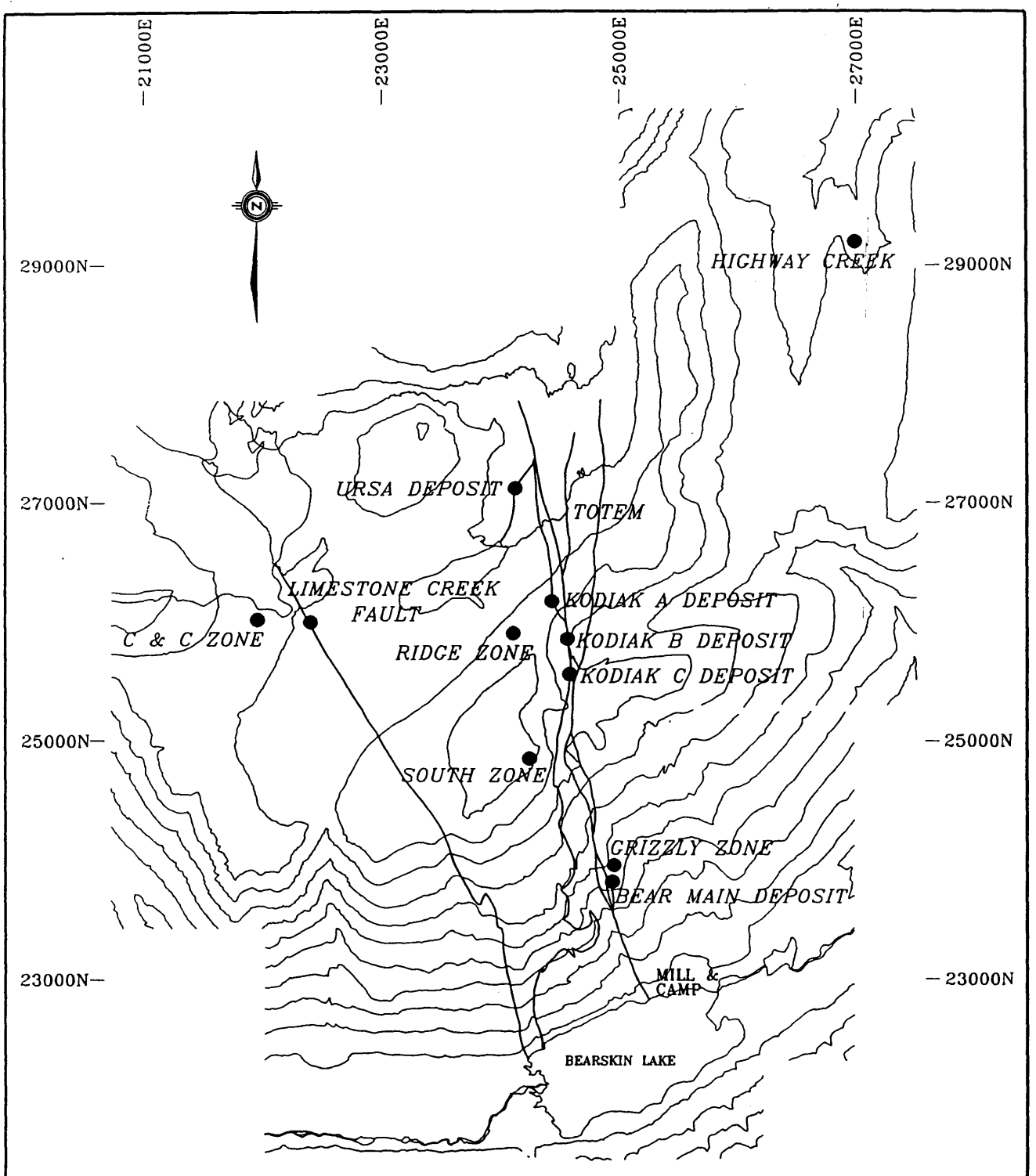
1.4 EXPLORATION HISTORY

Gold mineralization was discovered on the northern slope of Bearskin Creek in 1981 by Chevron Minerals Ltd. when the company was carrying out a regional exploration program on the Tulsequah mapsheet aimed at locating bulk tonnage epithermal gold deposits. An anomalous contour soil sample led to the discovery of the Bear Main deposit which became the focus of exploration efforts, primarily diamond drilling between 1982 and 1985. During this time mineralized zones further north on the property, including the Kodiak B, Kodiak C and Totem zones were also investigated (see Figure 1.4-1 for zone locations).

North American Metals became a joint venture partner in 1986 and continued to develop the Bear Main deposit. Homestake Mining (B.C.) Ltd. became an active participant in 1988 when they purchased 73.3% of NAMC and took the property to production in 1989. Production continued from the Bear Main deposit until 1994 when the zone was exhausted after producing 6,781,698 grams (218,040 ounces) of gold from 535,277 tonnes (590,041 tons) of ore.

Wheaton River Minerals Ltd. became involved in the project in 1993 when they acquired Homestake's interest in the property. The focus of exploration efforts was moved north on the property, and over the period from 1993 to 1996 exploration successes were significant and included: the discovery and definition of the Kodiak A and Ursa deposits, the definition of the Kodiak B deposit, the discovery of the Grizzly zone, definition drilling of the East Low Grade Stockpile, and the discovery of in situ mineralization in the Ridge, South, Limestone Creek Fault and C & C Zones (see Figure 1.4-1). Detailed descriptions of these mineralized zones are given in Craig et al (1996).

The property was brought back into production in 1997 when mining and heap leaching of ore from the Kodiak A deposit began. It was the first year of a five year plan that includes the mining of 1.5 million tonnes of oxide ore grading 5.1 grams per tonne from the Kodiak A, Ursa, and Kodiak B deposits.



NORTH AMERICAN METALS CORP.

PROPERTY INDEX MAP

Drawn by: APH

Date: October 1997

Figure No: 1.4-1

2.0 PROPERTY GEOLOGY

Work by a number of geologists has refined the understanding of the geology on the Golden Bear property, including Oliver and Hodgson (1989), McBean and Reddy (1993), Jaworski and Reddy (1993), Pigage (1994) and Cooley (1996). A synthesis of all property geology work is given in Craig et al (1997), and the reader is referred to that report for detailed information. Given below are more general descriptions of the stratigraphy, structure and mineralization.

2.1 STRATIGRAPHY

The stratigraphy of the Golden Bear property is dominated by Permian carbonate rocks of the Stikine Assemblage and rocks of the Upper Triassic Stuhini Group. General geology is shown on Figure 2.1-1.

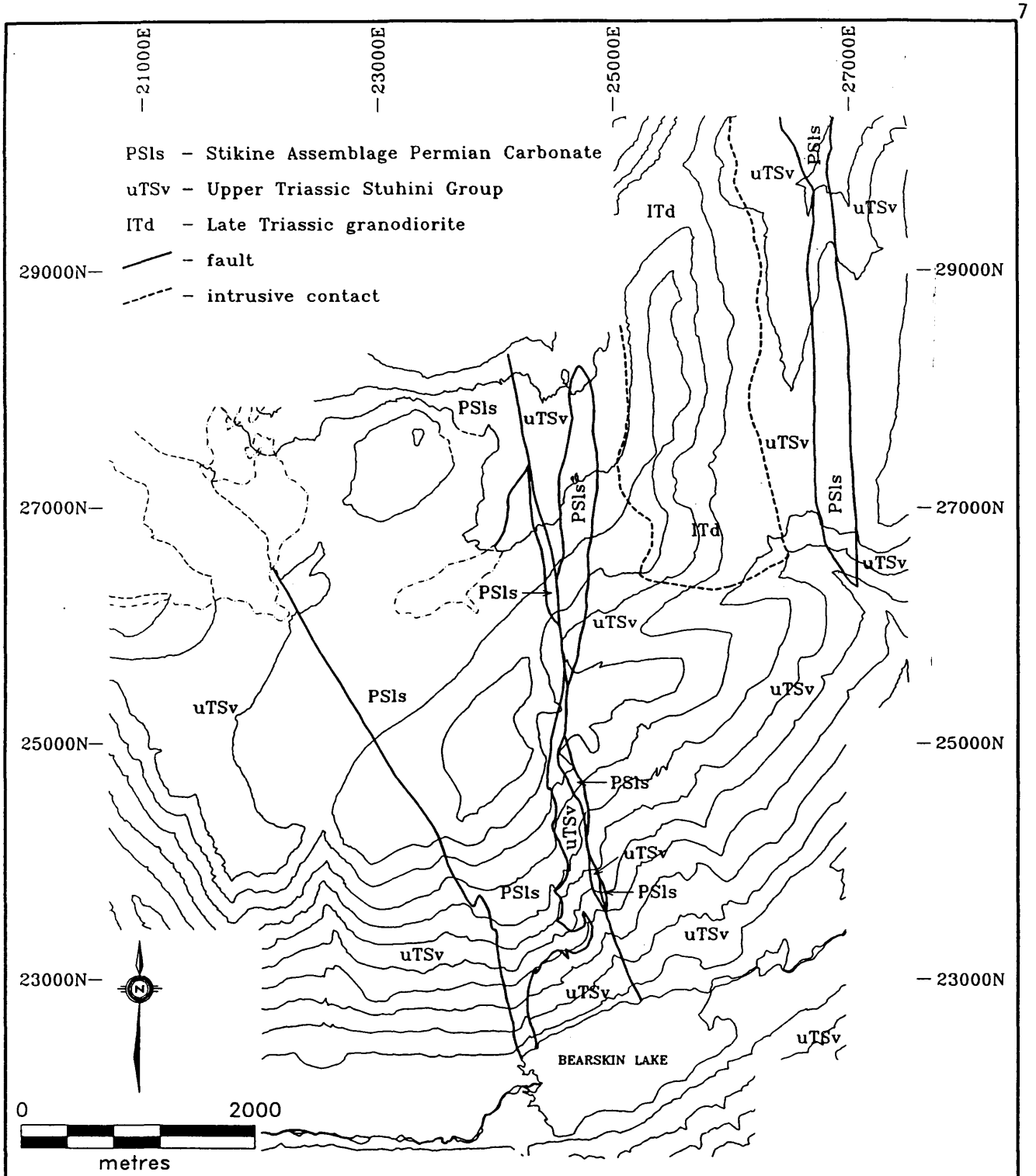
The Permian carbonate rocks occupy the central portion of the property where they occur as a south tapering wedge bound to the east and west by faults, to the north by a regional thrust fault (Oliver, 1996) and to the south by an unconformable contact with the overlying Stuhini Group (Cooley, 1996). The sequence contains massive to thin bedded limestones and includes both calcitic and dolomitic members. Fine sedimentary features have been obscured by a regional metamorphic event that has recrystallized the carbonates to low-grade marbles. Poorly preserved rugosan corals confirm an Early Permian date for the sequence.

The Upper Triassic Stuhini Group rocks overlie the Permian carbonates across a contact that Cooley (1996) has mapped as an unconformity. The group consists mainly of plagioclase and augite bearing volcaniclastic rocks and flows with lesser epiclastic rocks, argillites, quartzites and dolomite. The group is typically only weakly deformed with a pervasive, chloritic foliation only belong developed near major fault or shear zones.

There is a paucity of intrusive rocks on the Golden Bear property. Late Triassic granodiorite forms a prominent ridge to the northeast of the Permian carbonate wedge and is mantled by Stuhini Group rocks. Elsewhere a few strongly altered intermediate dykes of possible Sloko Group (Eocene) affinity have been uncovered in trenches and a number of basalt dykes of the Miocene Level Mountain Group have been intersected in diamond drill holes, particularly in the Grizzly Zone. The latter are unaltered and known to be post mineral.

2.2 STRUCTURE

The structural history of the Golden Bear property has been interpreted by Cooley (1996), who recognizes five deformational events. The first three events only affected Stikine Assemblage rocks. The depositional and deformation events are summarized below:



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GENERAL PROPERTY GEOLOGY

Drawn by: APH

Date: October 1997

Figure No: 2.1–1

D0 - deposition of Stikine Assemblage volcanics and carbonates
D1 - regional thrust faulting (Late Permian)
D2 - SE verging folding and regional metamorphism (Early Triassic)
D3 - NW trending open folding (Mid Triassic)
- erosion and deposition of Stuhini Group rocks
D4 - broad regional open folding (Early Jurassic)
D5 - regional strike slip faulting (Mid Jurassic)

In terms of gold mineralization the D5 event, which produced north to northwest trending, high angle, strike slip faults, is most important. The Ophir Break, an economically important fault zone that extends for at least 20 kilometres, was formed at this time. This fault zone provides primary control for the gold deposits of the Golden Bear property, and is comprised of several anastamosing fault strands over widths of 50 to 100 metres. Cooley (1996) has noted two sets of slickensides along the Ophir Break, one set is dominantly shallow plunges and the other is steeply plunging. The latter set cuts the first, indicating strike slip movement followed by dip slip movement.

2.3 MINERALIZATION

Gold mineralization at Golden Bear is of the Carlin style and occurs in tectonic breccia and fracture zones that have been developed in carbonate rocks within and adjacent to the fault structures of the Ophir Break. The removal of carbonate, addition of silica and the alteration of non-carbonate mineral grains to sericite and illite characterize alteration, which generally does not extend beyond the area of structural disturbance. The degree of decalcification and silicification can vary between zones. Silicification is most clearly related to gold mineralization and seems to be a necessary condition for it's presence, although decalcified zones are often associated with high gold grades.

Both refractory and oxide gold mineralization is present on the Golden Bear property. Refractory mineralization occurs in the Bear Main and Grizzly zones where carbonate rocks are in fault contact with volcanic rocks. It is characterized by the presence of 7 to 8% fine grained, dark gray pyrite that has been deposited along with silica as breccia matrix. The pyrite consists of arsenical pyrite overgrowths on earlier euhedral pyrite grains. Gold appears to be homogeneously distributed within the arsenical overgrowths. In the oxide zones, which include the Ursa, Kodiak A and Kodiak B deposits, gold mineralization occurs with variable quantities of iron oxides and hydroxides, quartz, sericite and illite as breccia matrix. SEM analyses has located gold grains of high fineness, most of which are 5 to 20 microns in size. Visible gold has only been recorded in a few drill holes in the Ursa deposit. Other metallic phases are very rare and extremely fine grained. The deposits contain geochemically

anomalous amounts of arsenic, antimony, mercury, fluorine, and less commonly, tellurium.

3.0 GRIZZLY

The Grizzly Zone occurs on the same structure as the Bear Main Zone but lies approximately 500 metres below within a second carbonate lens. This steeply dipping, northerly trending carbonate lens is bounded on both sides by Stuhini Group volcanics. Fault bounded slices of both volcanics and carbonates commonly occur internally. The lens averages approximately 70 metres in thickness, dips at 70 to 80 degrees east and appears to pinch out at depth. The northern extent of the lens is unknown. Although both contacts are faulted, it is the Footwall Fault on the western flank that appears to be associated with the more significant gold mineralization.

The Grizzly Zone itself is a sub-horizontal northerly trending zone of mineralization that occurs immediately adjacent to the Footwall Fault in the lower margin of the carbonate lens. It is a structurally complex zone with a variety of carbonate lithologies but overall the mineralization tends to occur in tectonic carbonate breccias and gougey volcanic tuffs. Gold is strongly associated with fine grained pyrite.

Previous drilling in the area delineated a zone of mineralization containing a resource of 149,000 tonnes grading 20.47 grams per tonne gold, cut, using a 12 gram cutoff. The strike length of the resource is 200 metres and remains open to the north.

3.1 1997 DIAMOND DRILLING

Exploration this year focussed on the potential for extending the gold mineralization northward. In order to test the northern zone, three holes were drilled from surface on one pad located at 24006N, 25195E and 1331 metres elevation. Advanced Diamond Drilling Ltd. personnel used an ADL300 diamond drill to complete the three HQ/NQ holes with a total of 1512.39 metres being drilled.

The first two holes were drilled from May 5 to June 10, 1997. The third hole was wedged off the second hole from July 16 to 26, 1997. Drilling was difficult at times due to poor ground conditions and occasional water loss. A single-shot Sperry Sun instrument and Pajari gyrometer were used to perform the down hole surveys at regular intervals. All drill core was geologically logged and photographed, with any zones of interest, alteration, or structural disturbance being split and sent to the mine-site lab for gold assay. All core, rejects, and pulps are stored at a storage facility at the mine airstrip.

3.2 RESULTS

Table 3.2-1 summarizes the significant gold values intersected in the Grizzly Zone during the 1997 drill program. A cross section with all three drillholes is shown in Figure 3.2-1 and Figures 3.2-2 and 3.2-3 are

longsections showing diamond drill intersections and grade times thickness contours.

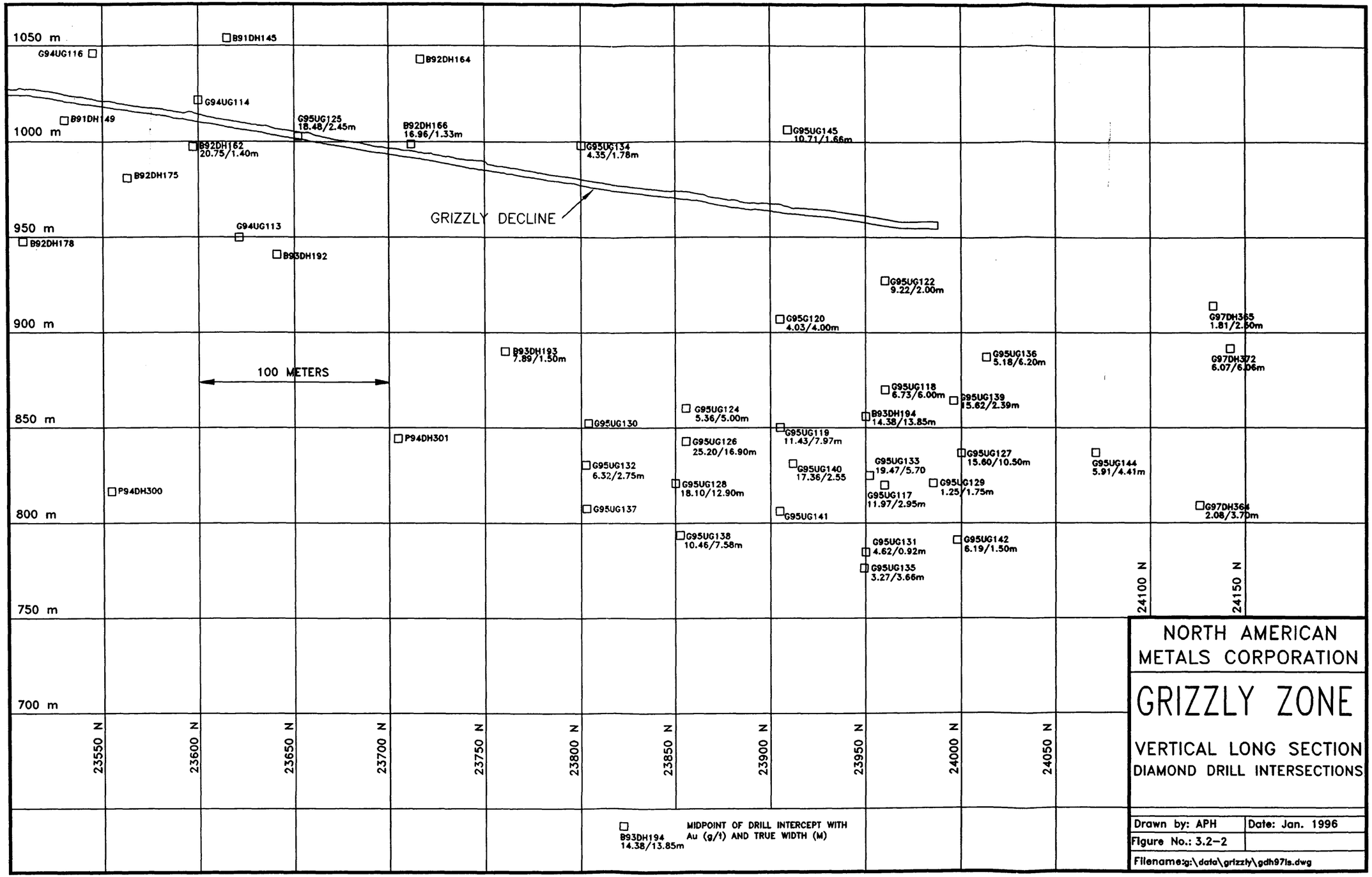
Drill hole	Total Depth	From (m)	To (m)	Length (m)	Au (g/t)
G97DH364	655.02 m	579.61	584.61	5.00	2.08
		608.27	609.21	0.94	1.10
G97DH365	587.63 m	387.87	395.42	7.55	5.13
	*	389.87	394.29	4.42	7.42
	*	392.06	394.29	2.23	10.60
		406.26	413.72	7.46	2.04
		488.60	491.60	3.00	1.95
		522.35	525.35	3.00	1.81
G97DH372	269.74 m	92.63	100.13	7.50	1.67
		113.38	117.33	3.95	2.61
		193.58	194.58	1.00	12.07
		230.33	242.33	12.00	4.25
	*	235.33	242.33	7.00	6.07

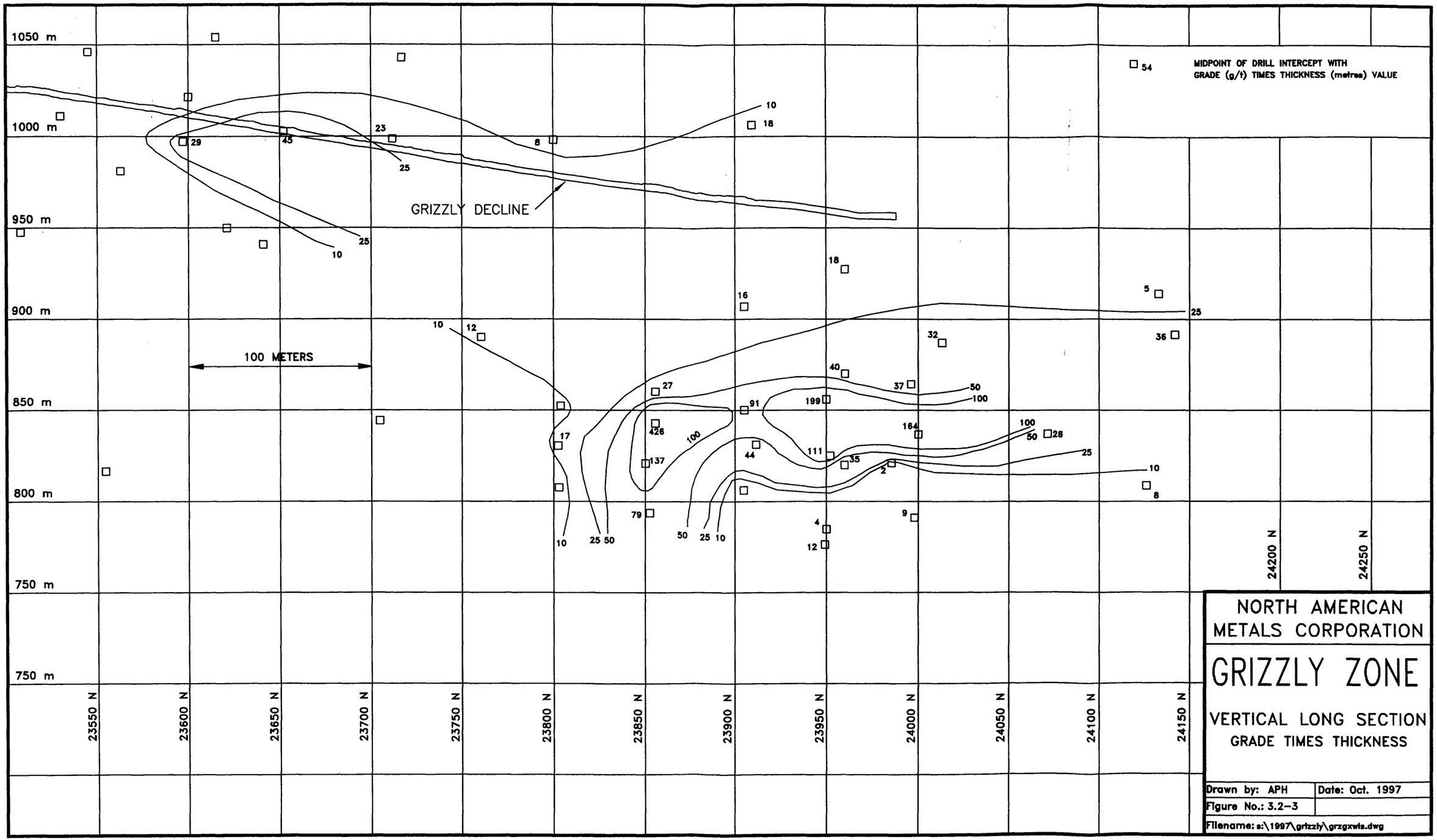
*Included in Zone Above

Table 3.2-1 1997 Grizzly Diamond Drillhole Summary

The first hole, G97DH364, reached a final depth of 655.02 metres, (Figure 3.2-1). It intersected the lower reaches of the Grizzly Zone having dipped more steeply during drilling than anticipated. An 11 metre wide heterolithic breccia was intersected at a depth of 578.61 metres, approximately 29 metres above the Footwall Fault. It was weakly mineralized returning a gold value of 2.08 grams per tonne over 5.00 metres. A second zone of mineralization occurred within the dark gray gouge of the Footwall Fault. It returned a gold value of 1.10 grams per tonne over 0.94 metres.

The second hole, G97DH365, was collared at a slightly lesser dip in order to compensate for the natural steepening that occurred in G97DH364. Its target was the central portion of the zone approximately 60 metres higher than intersected in G97DH364. This hole drilled straighter than anticipated and intersected the upper reaches of the Grizzly Zone. Gold mineralization was patchy and weak through the central portion of the carbonate lens but both margins contained slightly higher grades and lengths. The upper intersection occurred within and immediately below the Hanging Wall fault in a 7.55 metre sheared zone including an argillite, a pyritic tuff, a heterolithic breccia, and a dolomite. The gold grade over this interval was 5.13 grams per tonne. The lower zone occurred within the heterolithic breccia that was intersected 17 metres above the Footwall Fault. Values


1050 m
1000 m
950 m
900 m
850 m
800 m
750 m
700 m
B91DH145
G94UG116
B92DH164
G94UG114
B91DH149
G95UG125
18.48/2.45m
B92DH166
16.96/1.33m
G95UG145
10.71/1.66m
B92DH162
20.75/1.40m
G95UG134
4.35/1.78m
B92DH175
GRIZZLY DECLINE
G94UG113
B92DH178
B93DH192
G95UG122
9.22/2.00m
G95G120
4.03/4.00m
G97DH365
1.81/2.60m
100 METERS
B93DH193
7.89/1.50m
G95UG136
5.18/6.20m
G97DH372
6.07/6.06m
G95UG118
6.73/6.00m
G95UG139
15.62/2.39m
B93DH194
14.38/13.85m
G95UG124
5.36/5.00m
G95UG130
P94DH301
G95UG119
11.43/7.97m
G95UG126
25.20/16.90m
G95UG127
15.60/10.50m
G95UG133
19.47/5.70
G95UG144
5.91/4.41m
G95UG132
6.32/2.75m
G95UG140
17.36/2.55
G95UG129
1.25/1.75m
G95UG117
11.97/2.95m
P94DH300
G95UG128
18.10/12.90m
G97DH364
2.08/3.70m
G95UG137
G95UG141
G95UG138
10.46/7.58m
G95UG131
4.62/0.92m
G95UG142
6.19/1.50m
G95UG135
3.27/3.66m
24100 N
24150 N
23550 N
23600 N
23650 N
23700 N
23750 N
23800 N
23850 N
23900 N
23950 N
24000 N
24050 N
B93DH194
14.38/13.85m
MIDPOINT OF DRILL INTERCEPT WITH
Au (g/t) AND TRUE WIDTH (M)
NORTH AMERICAN
METALS CORPORATION
GRIZZLY ZONE
VERTICAL LONG SECTION
DIAMOND DRILL INTERSECTIONS
Drawn by: APH
Date: Jan. 1996
Figure No.: 3.2-2
Filename:g:\data\grizzly\gdh97ls.dwg


1050 m
1000 m
950 m
900 m
850 m
800 m
750 m
750 m
54 MIDPOINT OF DRILL INTERCEPT WITH GRADE (g/t) TIMES THICKNESS (metres) VALUE
GRIZZLY DECLINE
100 METERS
23550 N
23600 N
23650 N
23700 N
23750 N
23800 N
23850 N
23900 N
23950 N
24000 N
24050 N
24100 N
24150 N
24200 N
24250 N
NORTH AMERICAN METALS CORPORATION
GRIZZLY ZONE
VERTICAL LONG SECTION
GRADE TIMES THICKNESS
Drawn by: APH
Date: Oct. 1997
Figure No.: 3.2-3
Filename: s:\1997\grizzly\grzgxwls.dwg

here were weak with the highest gold assays of 1.81 grams per tonne over 3.00 metres.

The third hole, G97DH372, was wedged off of G97DH365 approximately half way down at a depth of 302.67 metres. Two wedges were set approximately 30 metres apart in order to direct the drillhole towards the central portion of the northern zone. Broken and blocky ground prevented the setting of the third and fourth wedges, thus the third hole intersected slightly above the target depth. Regardless, mineralization was intersected along both margins of the carbonate lens. The hanging wall mineralization was relatively weak and occurred within a heterolithic breccia and cherty dolomite. The lower heterolithic breccia along the Footwall Fault returned gold values up to 6.07 grams per tonne over 7.00 metres. This zone included a one metre section containing 17.45 grams per tonne. Drillhole G97DH372 intersected the upper margin of the northerly projected high grade gold zone indicating mineralization quite possibly continues to the north.

3.3 CONCLUSIONS AND RECOMMENDATIONS

Two holes (G97DH364 and G97DH365) were drilled from surface to test the northern extension of the Grizzly Zone. These holes reached depths of 488.00 and 387.87 metres respectively before intersecting the hanging wall fault of the carbonate lens containing the Grizzly Zone. These deep holes deviated during drilling from their intended targets therefore a third hole was wedged off G97DH365. This hole also came in slightly above the target zone but did intersect the uppermost margin of the northerly striking, subhorizontal Grizzly Zone, (Figures 3.2-2 and 3.2-3). Lithologies, structures and grades do indicate potential for further mineralization northward.

Continued drilling is recommended to further test the gold mineralization northward along strike and at depth. Two options are available to accomplish this. The first is continued surface drilling from the pad used this year. At least four more holes, (600-650 metres each) could be drilled from this location into the northern Grizzly Zone extension. The second option involves dewatering and rehabilitation of the Grizzly ramp along with a 200 metre extension to facilitate regularily spaced drill stations. The second option is somewhat more costly but would provide better control and coverage of drill targets.

4.0 RIDGE ZONE

The Ridge Zone is a structurally controlled gold occurrence that lies 300 metres west of the Kodiak A deposit (see Figure 1.4-1). Gold mineralization was discovered here in 1995 when NAMC carried out a multifaceted exploration program that included soil geochemistry, prospecting, trenching and diamond drilling. This work identified mineralization that is hosted in hematitic and limonitic, brecciated and crackled Permian carbonate rocks along the north-south trending, steeply westerly dipping Ridge Fault. Drilling returned values of up to 2.40 g/t gold over 20.03 metres, with broad intersections often containing higher grade intercepts of up to 4.55 g/t gold over 4.87 metres. The higher grade zones correspond to iron oxide rich, silicified breccias, while the lower grade values correspond to portions of the structure where structural disturbance and alteration is less intense (crackling and fracturing). The zone was outlined over a 220 metre strike length and to depths of 80 metres below surface that remained open to the north, south and at depth.

4.1 1997 DIAMOND DRILLING

The 1997 diamond drilling program was designed to test the down dip potential of the Ridge Zone as long sections based on the 1995 drillhole data suggested that potential existed for similar or greater widths, and higher grade in this direction. Three holes were drilled on three previously defined east-west sections spaced 60 metres apart. The holes, aimed to intersect the zone 60 metres below the deepest existing intersections, totalled 601.07 metres. The location of the holes is shown on Figure 4.1-1.

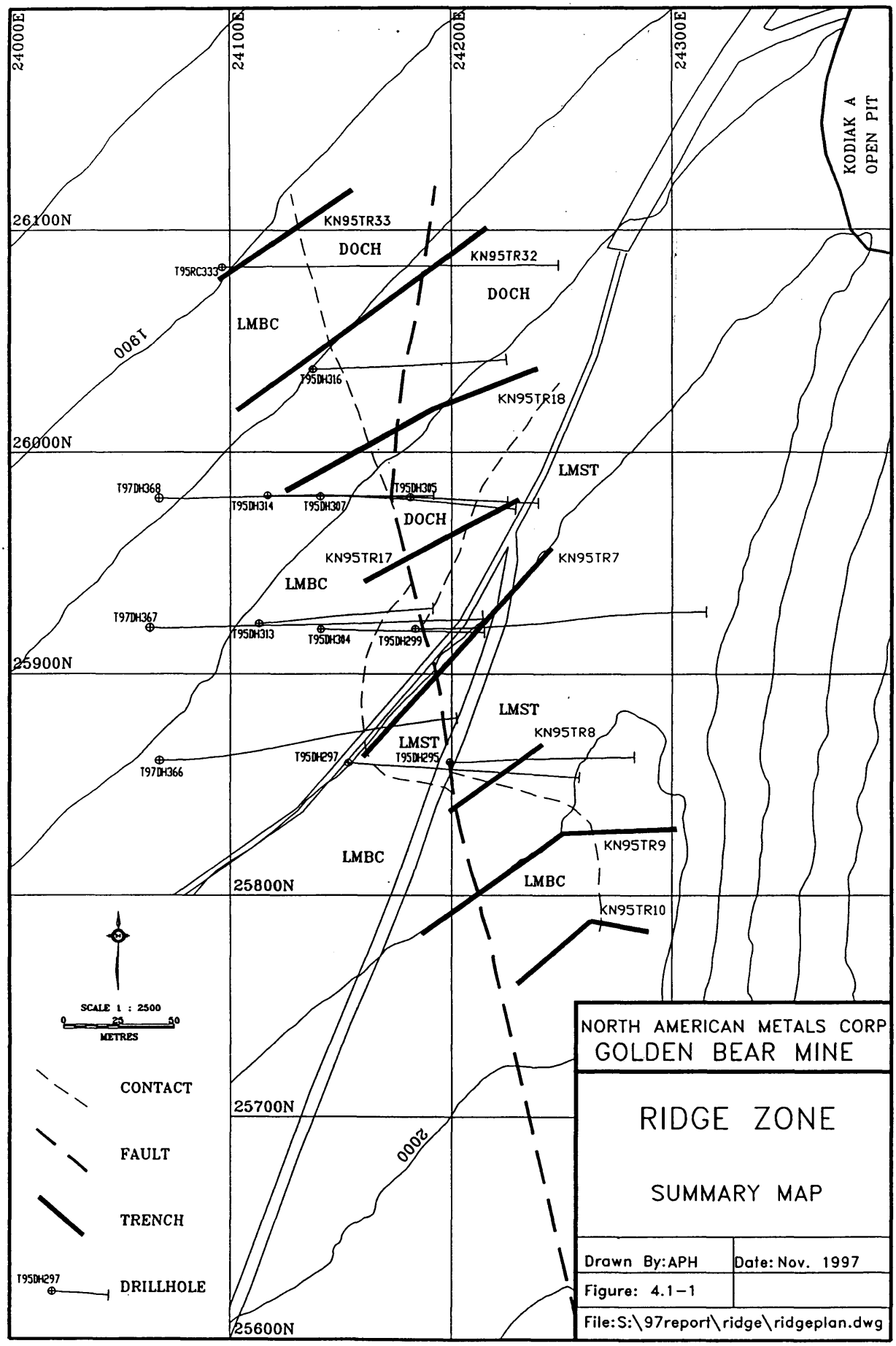
4.2 RESULTS

The down hole geology and assay results of the three 1997 drillholes are shown on three vertical sections (Figures 4.2-1 to 4.2-3), while grade and thickness of the mineralized zone are shown on long sections on Figures 4.2-4 and 4.2-5. Assay results are summarized in Table 4.2-1.

Drillhole	From (m)	To (m)	Au (g/t)	Length (m)
T97DH366	115.00	127.71	1.67	12.71
inc.	115.00	120.70	2.34	5.70
inc.	115.00	116.61	4.37	1.61
T97DH367	123.75	135.84	0.48	12.09
T97DH368	112.47	126.80	1.11	14.33
inc.	116.00	117.65	5.52	1.65

Table 4.2-1: 1997 Ridge Zone Diamond Drill Summary

All three holes successfully pierced the fault zone, encountering true structural widths of 12.5 to 14.5 metres. As with the 1995 intersections, individual assays within two of these intersections returned higher grade values of up to 6.62 g/t gold, however the weighted assays over the full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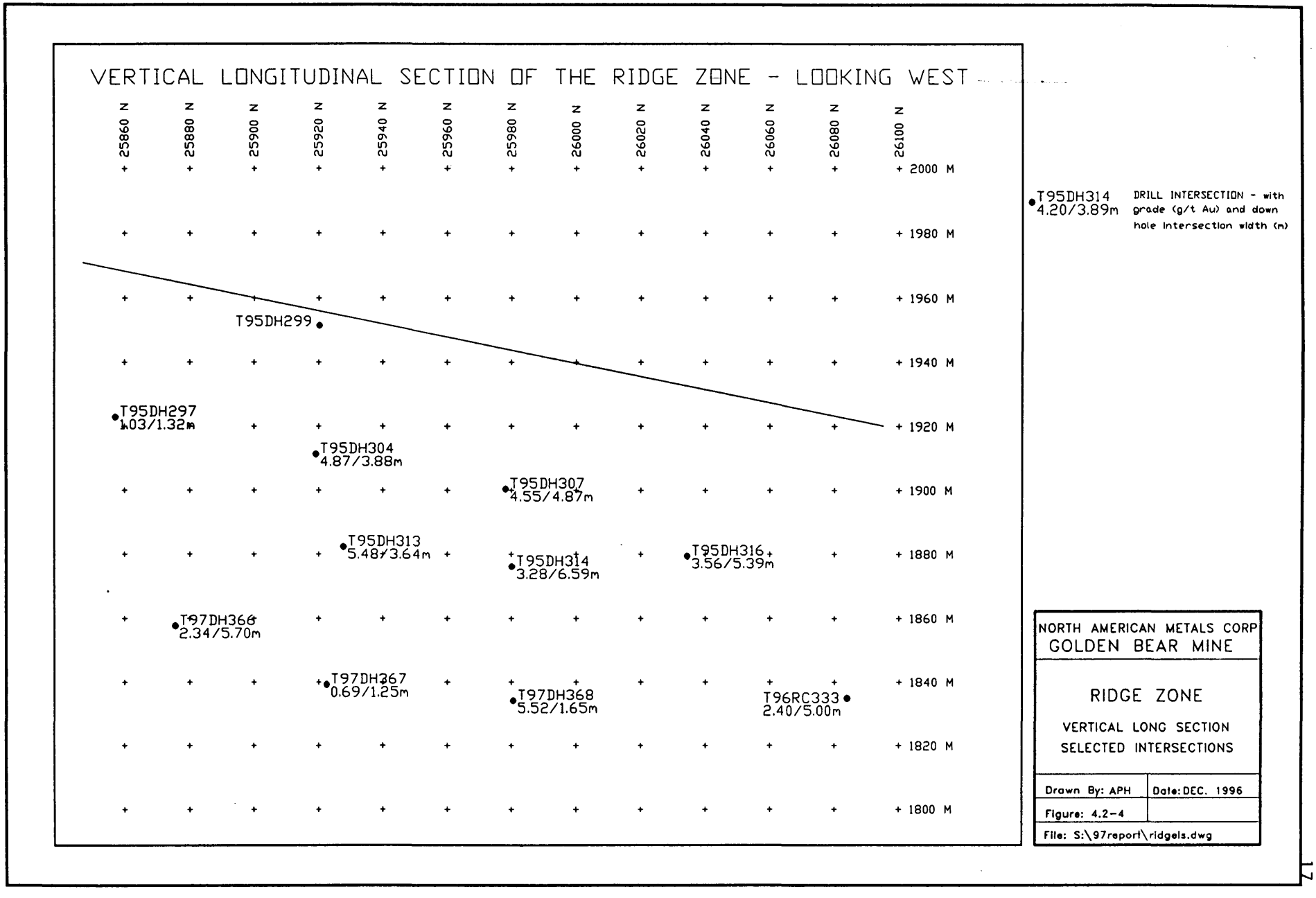
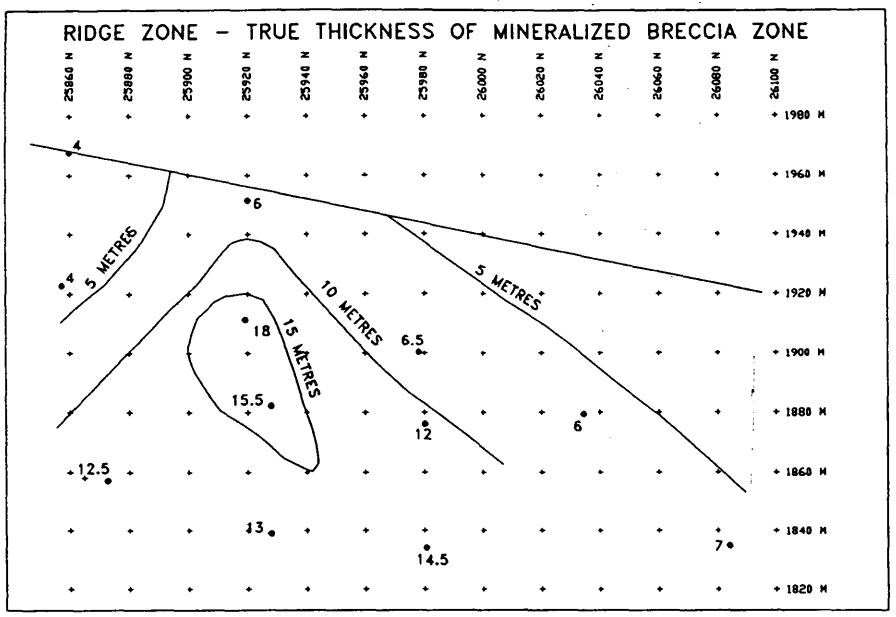
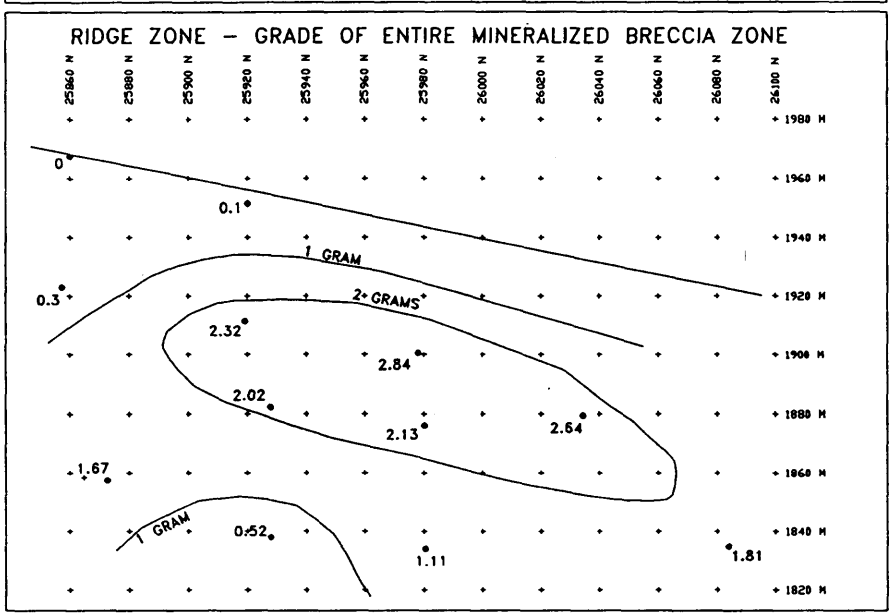
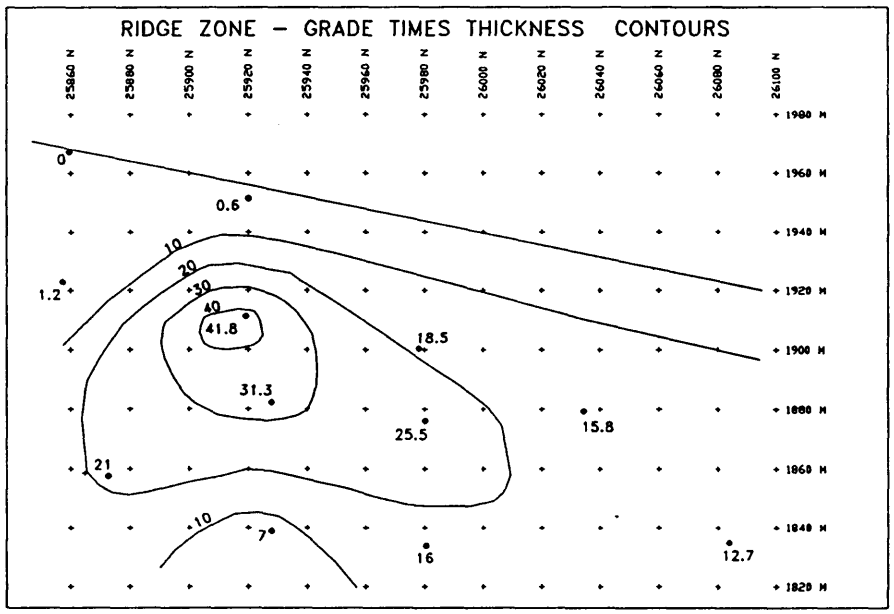
24100E
24200E
24300E
KODIAK A
OPEN PIT
26100N
26000N
25900N
25800N
25700N
25600N
1900
2000
KN95TR33
KN95TR32
KN95TR18
KN95TR17
KN95TR7
KN95TR8
KN95TR9
KN95TR10
DOCH
DOCH
DOCH
LMBC
LMBC
LMBC
LMST
LMST
LMST
T95RC333
T95DH316
T97DH368
T95DH314
T95DH307
T95DH305
T97DH367
T95DH313
T95DH304
T95DH299
T97DH366
T95DH297
T95DH295
SCALE 1 : 2500
0 25 50
METRES
CONTACT
FAULT
TRENCH
T95DH297
DRILLHOLE
NORTH AMERICAN METALS CORP
GOLDEN BEAR MINE
RIDGE ZONE
SUMMARY MAP
Drawn By:APH
Date: Nov. 1997
Figure: 4.1-1
File:S:\97report\ridge\ridgeplan.dwg


VERTICAL LONGITUDINAL SECTION OF THE RIDGE ZONE - LOOKING WEST
25860 N
25880 N
25900 N
25920 N
25940 N
25960 N
25980 N
26000 N
26020 N
26040 N
26060 N
26080 N
26100 N
2000 M
1980 M
1960 M
1940 M
1920 M
1900 M
1880 M
1860 M
1840 M
1820 M
1800 M
T95DH299
T95DH297
1.03/1.32m
T95DH304
4.87/3.88m
T95DH307
4.55/4.87m
T95DH313
5.48/3.64m
T95DH314
3.28/6.59m
T95DH316
3.56/5.39m
T97DH366
2.34/5.70m
T97DH367
0.69/1.25m
T97DH368
5.52/1.65m
T96RC333
2.40/5.00m
T95DH314
4.20/3.89m
DRILL INTERSECTION - with grade (g/t Au) and down hole intersection width (m)
NORTH AMERICAN METALS CORP
GOLDEN BEAR MINE
RIDGE ZONE
VERTICAL LONG SECTION
SELECTED INTERSECTIONS
Drawn By: APH
Date: DEC. 1996
Figure: 4.2-4
File: S:\97report\ridgels.dwg







RIDGE ZONE – LONG SECTIONS	Figure 4.2–5

structural interval returned lower gold values than the 1995 holes (see middle frame of Figure 4.2-5).

4.3 CONCLUSIONS AND RECOMMENDATIONS

The 1997 Ridge Zone diamond drilling program, while encountering good structural widths, did not return economic gold grades. In fact gold values were lower than those previously returned from drilling further updip on the fault. No further work is recommended for this portion of the Ridge Fault.

5.0 LIMESTONE CREEK FAULT

The Limestone Creek Fault is a northwesterly trending fault zone that lies 2 kilometres to the west of the Ophir Break (see Figure 1.4-1). The area is of interest as an exploration target because the fault outlines the contact between Permian carbonates to the east and Stuhini group volcanic and clastic rocks to the west, forming a mirror image of the gold bearing Ophir Break fault system, which lies along the eastern boundary of the Permian carbonate wedge.

The first hole drilled into the fault in 1996 returned 7.93 g/t gold over 4.5 metres from a strongly altered volcanic sliver or dyke. Two holes drilled 100 metres north and south, respectively, failed to return significant gold values and two attempts to drill below the mineralized intersection failed due to extremely broken ground conditions. These drillholes, which all intersected roughly 80 metres below surface, suggested that the Limestone Creek Fault is a near vertical structure.

5.1 1997 DIAMOND DRILLING

The 1997 diamond drilling program on the Limestone Creek Fault was designed to test for gold mineralization below the mineralized intersection returned from the 1996 drilling. Two holes were drilled in 1997 totalling 311.49 metres. The location of these holes relative to the earlier drillholes is shown on Figure 5.1-1. T97DH370 was drilled on the same section as the discovery hole, T96DH356, and T97DH371 was drilled 25 metres to the north of the discovery hole.

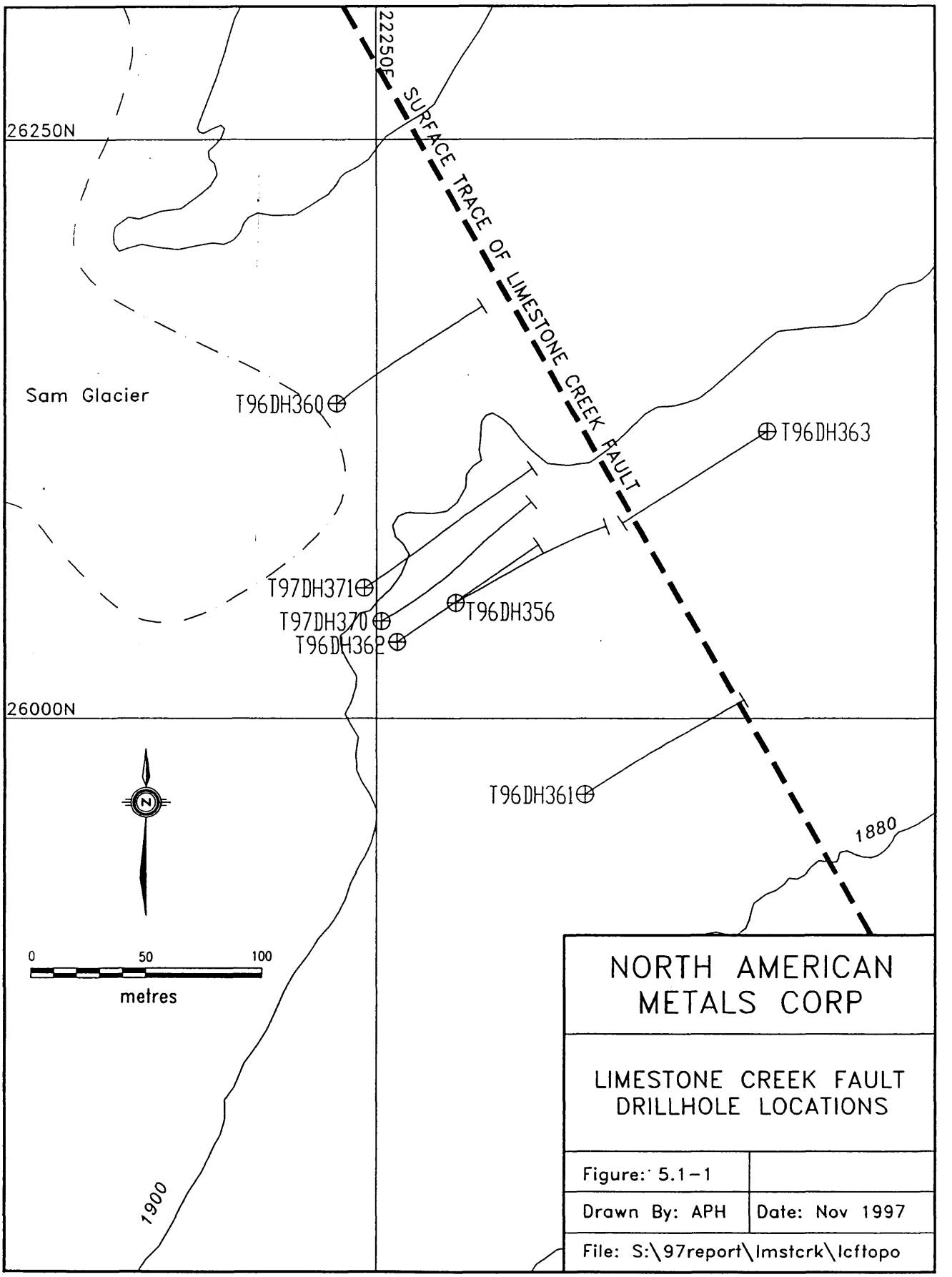
5.2 RESULTS

The downhole geology and assay results of the 1997 drillholes are shown on two vertical sections (Figures 5.2-1 and 5.2-2). Assay results are summarized in Table 5.2-1. Both holes were drilled from west to east, first passing through a sequence of interbedded quartzites and fine grained mafic volcanic rocks before entering the Limestone Creek Fault Zone.

Drillhole	From (m)	To (m)	Au (g/t)	Length (m)
T97DH370	32.96	33.43	2.13	0.47
	89.91	91.26	1.17	1.35
	141.57	142.33	1.10	0.76
T97DH371	no	significant	results	

Table 5.2-1: 1997 Limestone Creek Diamond Drill Summary

As with the 1996 drilling, the 1997 drillholes encountered extremely broken ground when the holes reached the fault zone. T97DH370 had encountered carbonate rocks at its final depth of 149.33 metres when the hole was lost due to bad ground, however it had not reached its target depth, which had allowed for a projection of a near vertical fault system. As such it was uncertain as to whether or not the carbonate rocks in the core represented a large block within the fault zone, or the eastern side of


22250E
SURFACE TRACE OF LIMESTONE CREEK FAULT
26250N
Sam Glacier
T96DH360
T96DH363
T97DH371
T97DH370
T96DH362
T96DH356
26000N
T96DH361
1880
1900
N
0
50
100
metres
NORTH AMERICAN METALS CORP
LIMESTONE CREEK FAULT DRILLHOLE LOCATIONS
Figure: 5.1-1
Drawn By: APH
Date: Nov 1997
File: S:\97report\lmstcrk\lcftopo

the fault where carbonate rocks were expected. A second hole was collared 25 metres to the north which did manage to get through the fault and to target depth. It intersected carbonate rocks at the same depth as the first hole, indicating that the fault actually dips 65 to 70 degrees to the west in this area.

No significant gold assays were returned from the drill holes. The only assays of greater than one gram per tonne were obtained from T97DH370, as shown above, and only the assay from 141.57 to 142.33 metres was within the fault zone. The two other assays were from higher up the hole and hosted in mafic volcanics and quartzite respectively. Alteration was not observed to be intense or extensive in either of these units, even in close proximity to the fault zone.

5.3 CONCLUSIONS AND RECOMMENDATIONS

Diamond drilling in 1997 below the mineralized intersection obtained during the 1996 program failed to return significant gold mineralization. Holes to the north, south and now downdip, effectively close off the potential for an economic deposit along this portion of the Limestone Creek Fault and no further work is recommended for this area. This however, does not preclude the possibility that significant gold mineralization may exist elsewhere along strike to the northwest or southeast.

6.0 HIGHWAY CREEK

The Highway Creek area lies four kilometres to the north east of the Kodiak A deposit (see Figure 1.4-1). The region was first explored in the 1980's by Chevron who mapped the geology and collected rock and contour soil samples, from which a number of anomalous gold values were obtained. Additional contour soil sampling by NAMC in 1994 also produced anomalous gold values.

Highway Creek is an attractive exploration target because the geologic setting is very similar to that of the Bear Main deposit. A narrow sliver of Permian carbonate rocks has been mapped extending from the Fleece Bowl drainage more or less due north for 7.5 kilometres, pinching out north of Sam Creek. The carbonate rocks are in fault contact with mafic volcanic rocks. Anomalous gold values appear to be associated with the fault zones. The geology for the 1.5 kilometre section investigated in 1997 is shown on Figure 6.0-1.

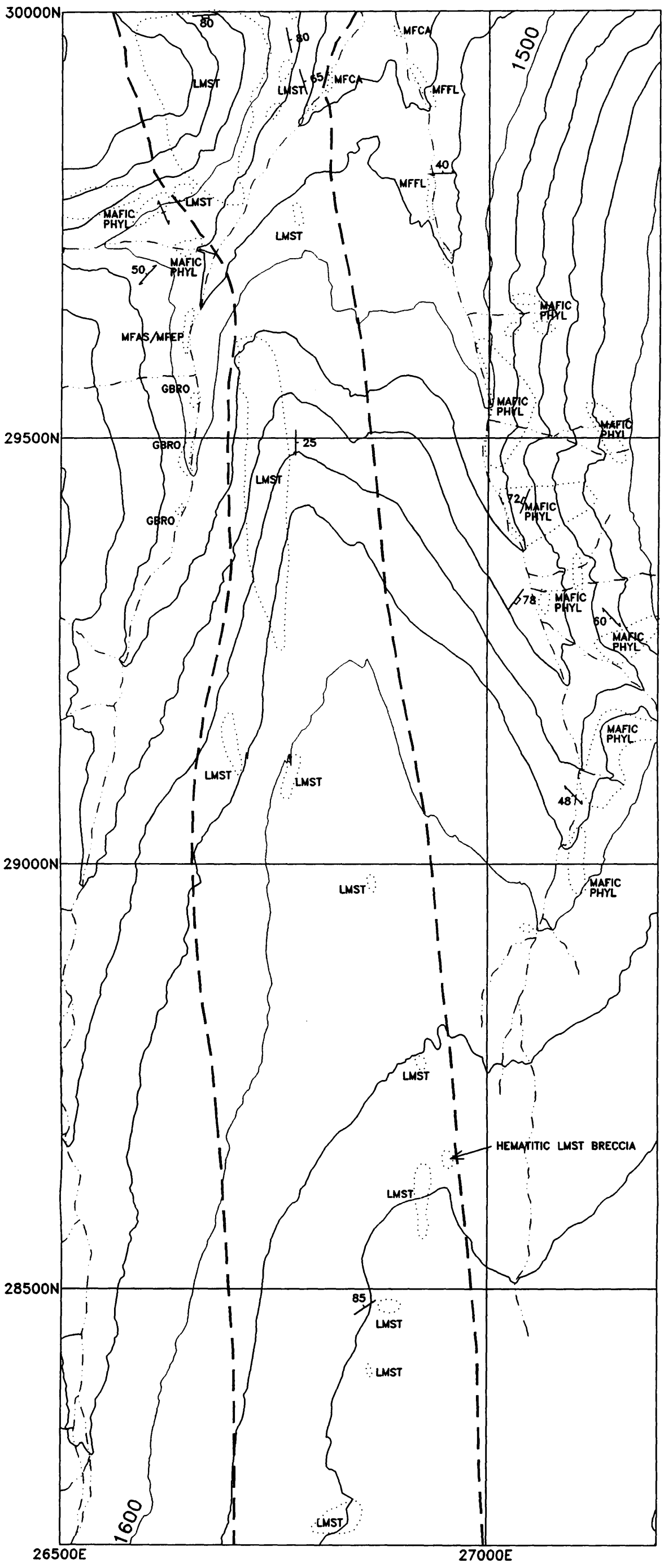
6.1 1997 WORK PROGRAM

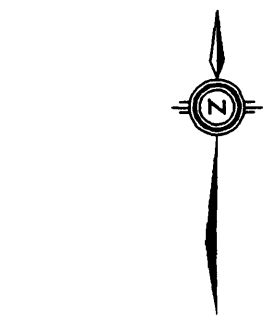
The 1997 work program in the Highway Creek area consisted of soil sampling and prospecting. For the soil geochemistry program, a 1600 metre, north-south, picketed baseline was established using a Brunton compass and a tight chain. Lines were then run east-west with samples being collected every 25 metres. The location of all grid lines is shown on Figure 6.1-1. A total of 261 samples were collected. Prospecting was carried out within the limits of the grid with 110 rock samples being collected.

6.2 SOIL GEOCHEMISTRY

All soil samples were analyzed at Chemex Labs in Vancouver. The analytical package consisted of 32 element ICP, mercury by cold vapour and gold by fire assay with an AA finish. The data is shown on colour contoured Surfer plots for Au, As, Hg, Sb, Ca, Mg and Sr on Figures 6.2-1 to 6.2-7 respectively. Previous statistical analysis of geochemical data from Golden Bear indicates that gold mineralization is associated with this suite of elements.

The gold plot shows that anomalous gold values are associated with faults on both east and west sides of the carbonate sliver. Values of at least 25 ppb, and up to 340 ppb, extend from 28800N to 29700N, a distance of 900 metres. Anomalous arsenic and mercury values are coincident with gold over the eastern fault only, in particular between 29000N and 29300N. Antimony values are weak and primarily outline the extent of the carbonate rocks, as do the results for Ca, Mg and Sr. To the immediate south of the grid the carbonate sliver is strongly masked by glacial till.





0 125 250

METRES

LEGEND

- Fault
- Outcrop
- LMST – Limestone
- MFFL – Mafic Flow
- MFEP – Mafic Epiclastic Rock
- MFAS – Mafic Ash Tuff
- MAFIC PHYL – Mafic Phyllite
- GBRO – Gabbro
- 35 – Bedding
- 55 – Foliation
- 75 – Joint

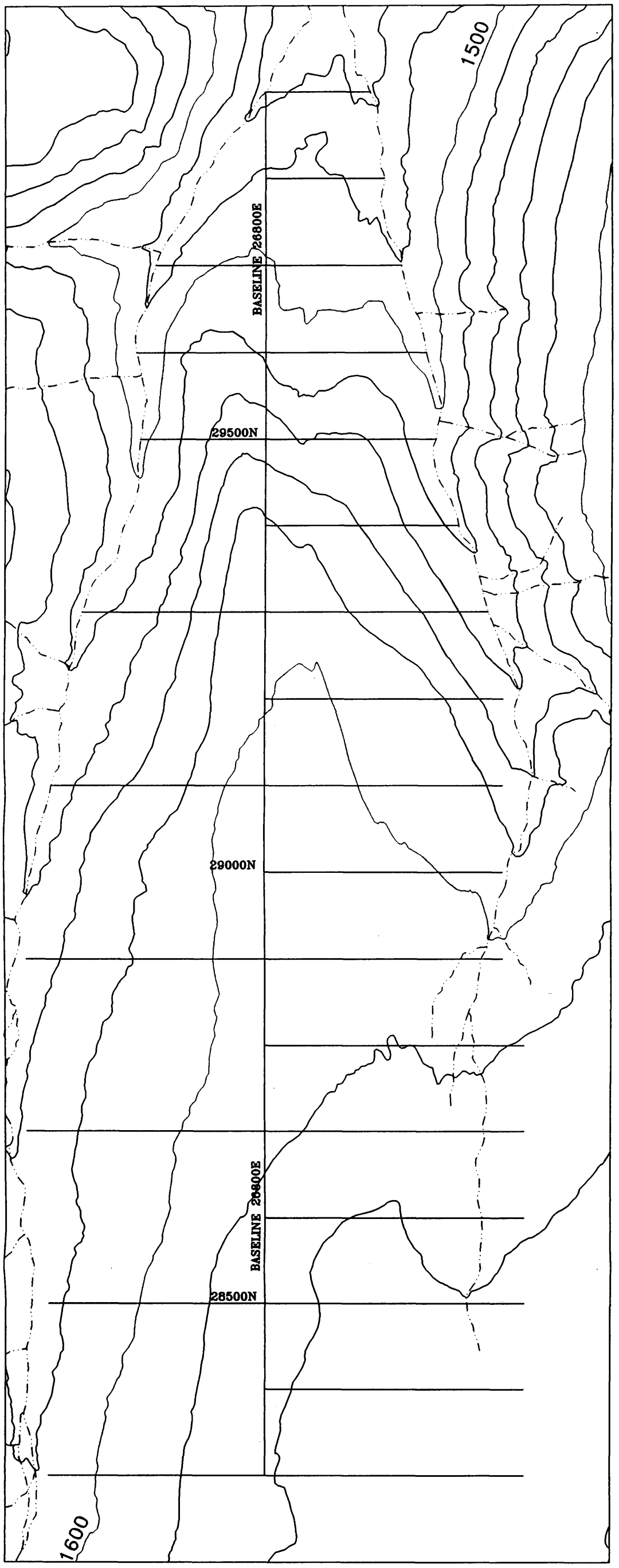
NORTH AMERICAN METALS CORP
GOLDEN BEAR MINE

HIGHWAY CREEK GEOLOGY

Drawn By: APH

Date: October, 1997

Figure No: 6.0–1



0 125 250

METRES

NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE

HIGHWAY CREEK
GEOCHEMISTRY GRID

Drawn By: APH

Date: October, 1997

Figure No: 6.1-1

30000N
29500N
29000N
28500N
1500
1600
26500E
27000E

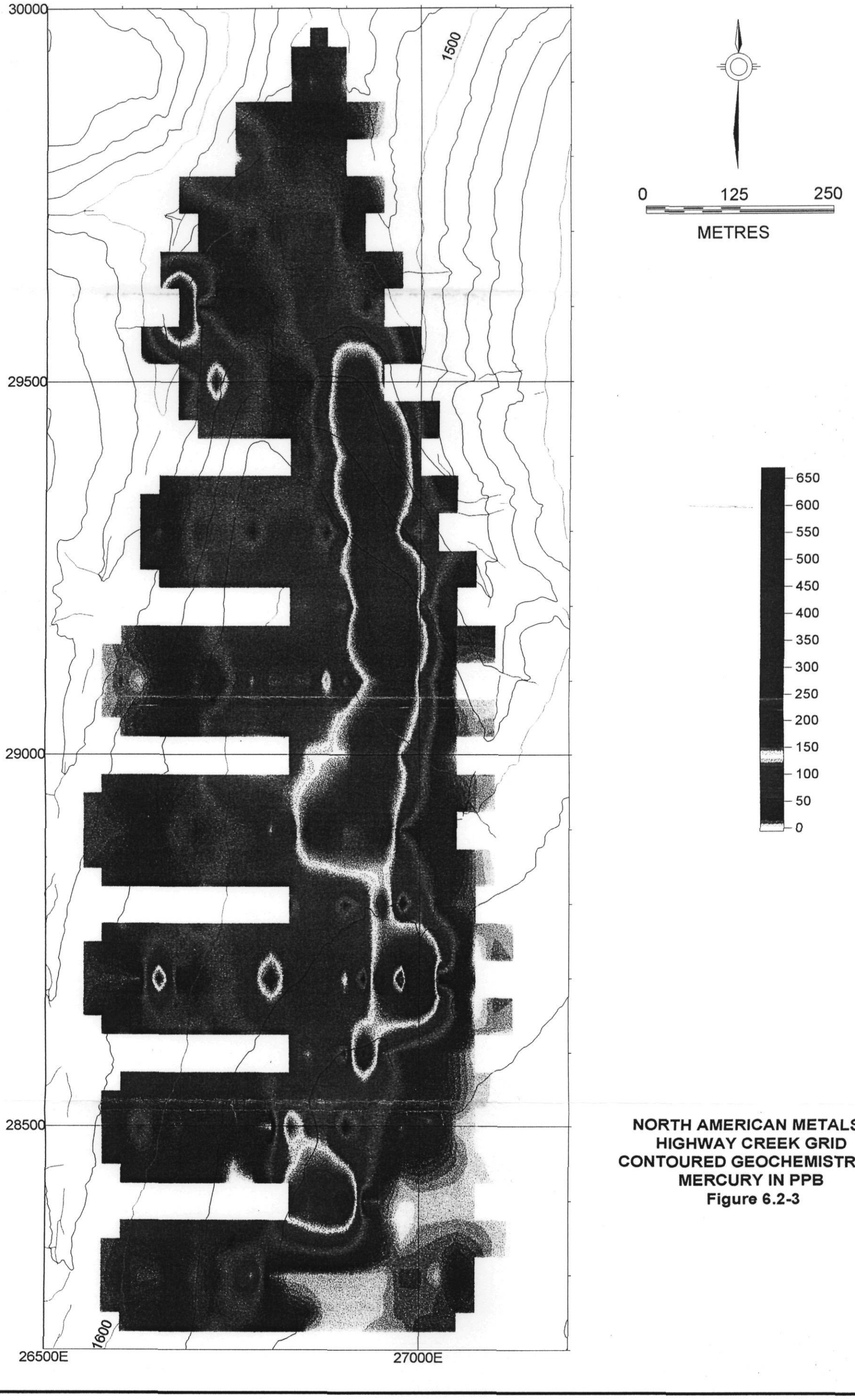
0 125 250
METRES

340
320
300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0

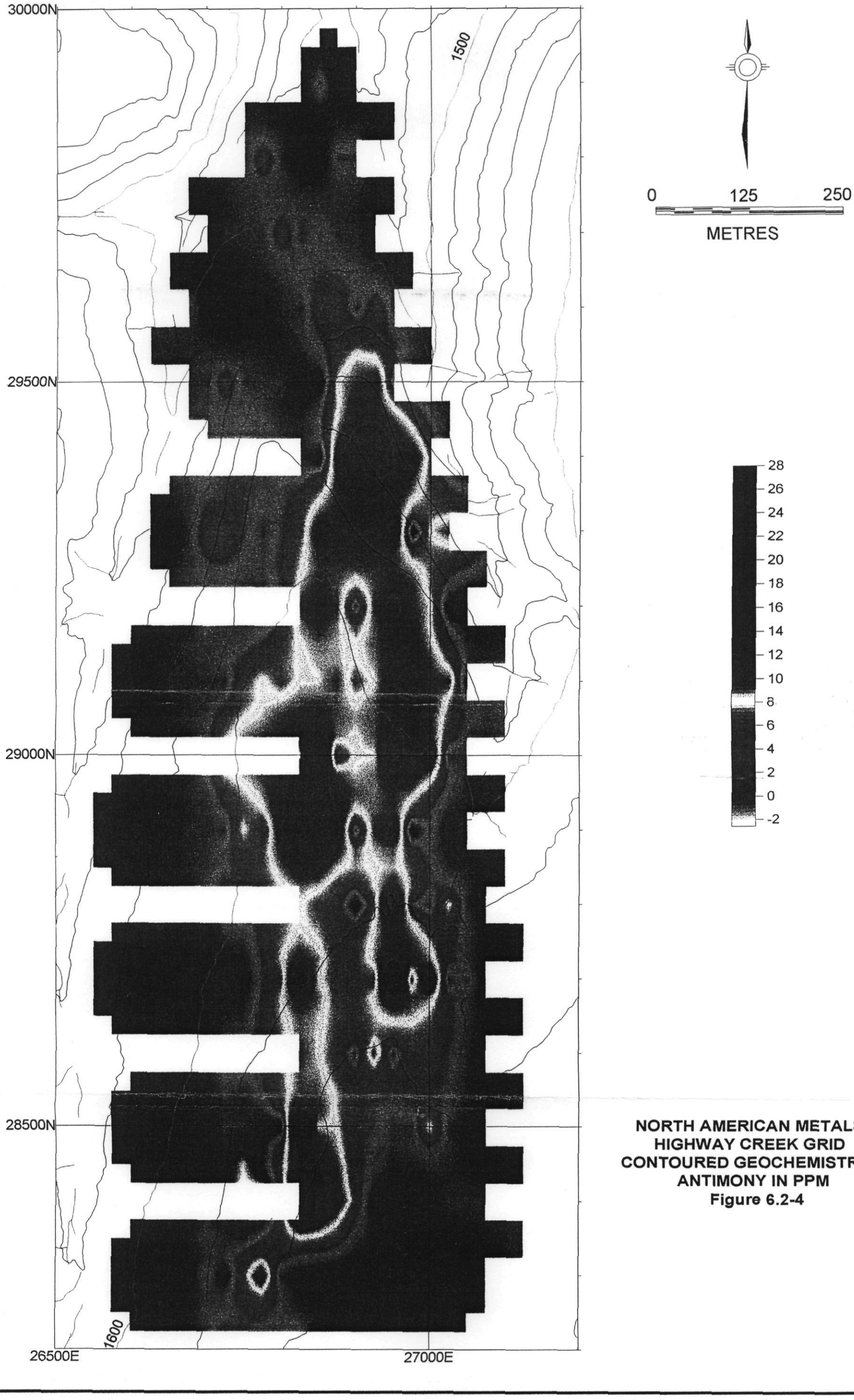
NORTH AMERICAN METALS
HIGHYWAY CREEK GRID
CONTOURED GEOCHEMISTRY
GOLD IN PPB
Figure 6.2-1

30000N
29500N
29000N
28500N
26500E
27000E
1500
1600
0
125
250
METRES
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0

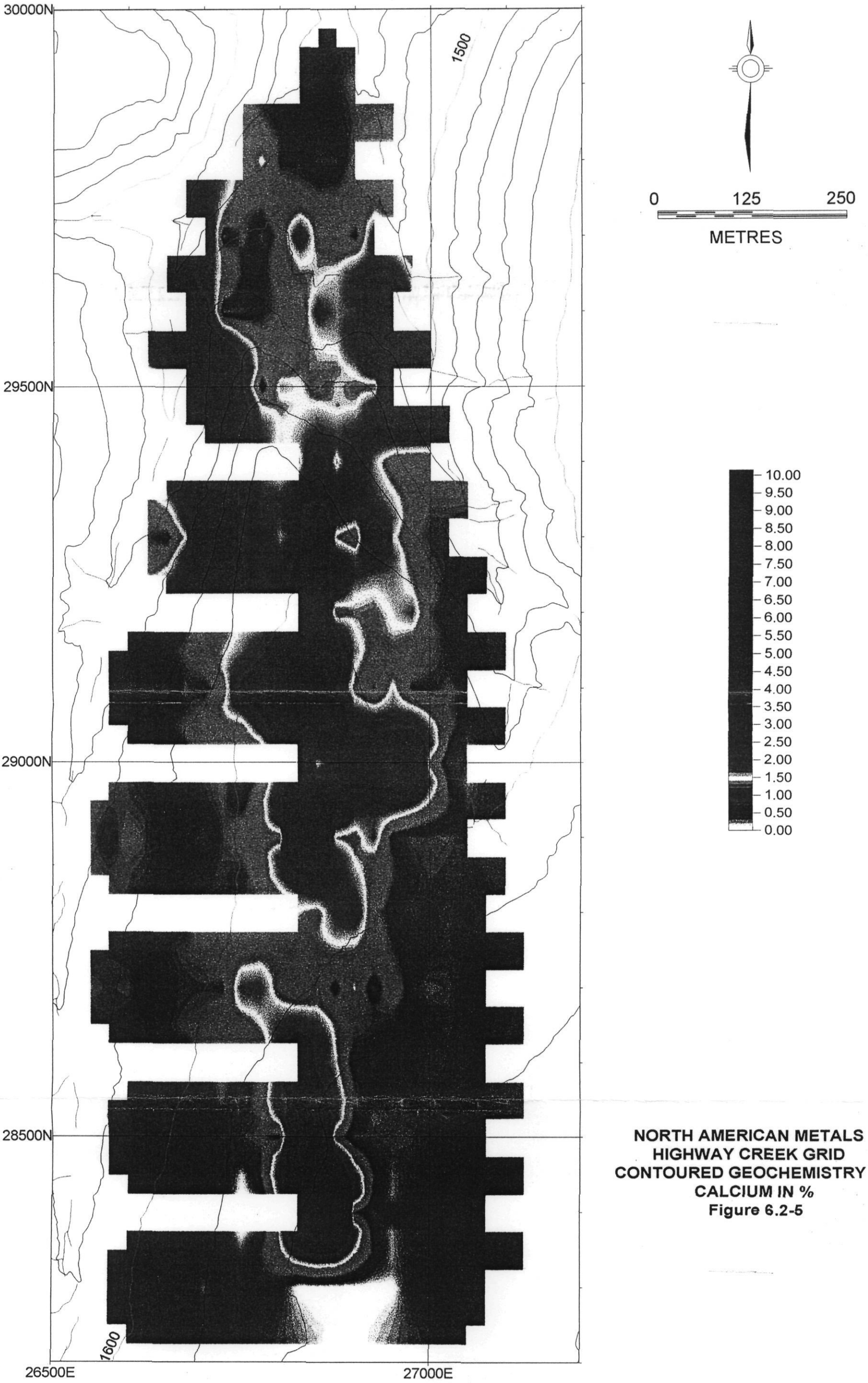
NORTH AMERICAN METALS
HIGHWAY CREEK GRID
CONTOURED GEOCHEMISTRY
ARSENIC IN PPM
Figure 6.2-2



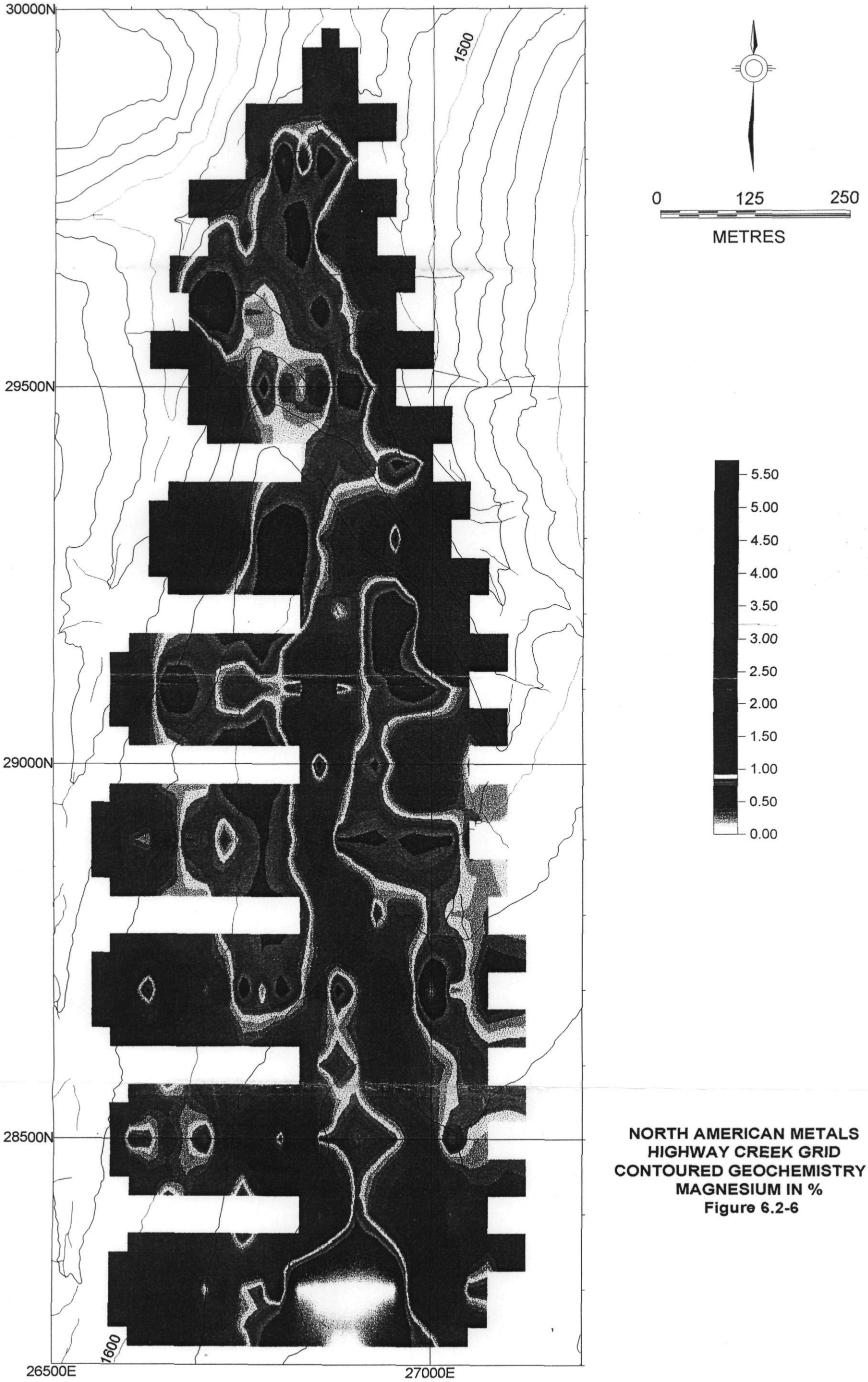
NORTH AMERICAN METALS
HIGHWAY CREEK GRID
CONTOURED GEOCHEMISTRY
MERCURY IN PPB
Figure 6.2-3



NORTH AMERICAN METALS
HIGHWAY CREEK GRID
CONTOURED GEOCHEMISTRY
ANTIMONY IN PPM
Figure 6.2-4



NORTH AMERICAN METALS
HIGHWAY CREEK GRID
CONTOURED GEOCHEMISTRY
CALCIUM IN %
Figure 6.2-5



NORTH AMERICAN METALS
HIGHWAY CREEK GRID
CONTOURED GEOCHEMISTRY
MAGNESIUM IN %
Figure 6.2-6

30000N
29500N
29000N
28500N
26500E
27000E
1500
1600

0 125 250
METRES

5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00

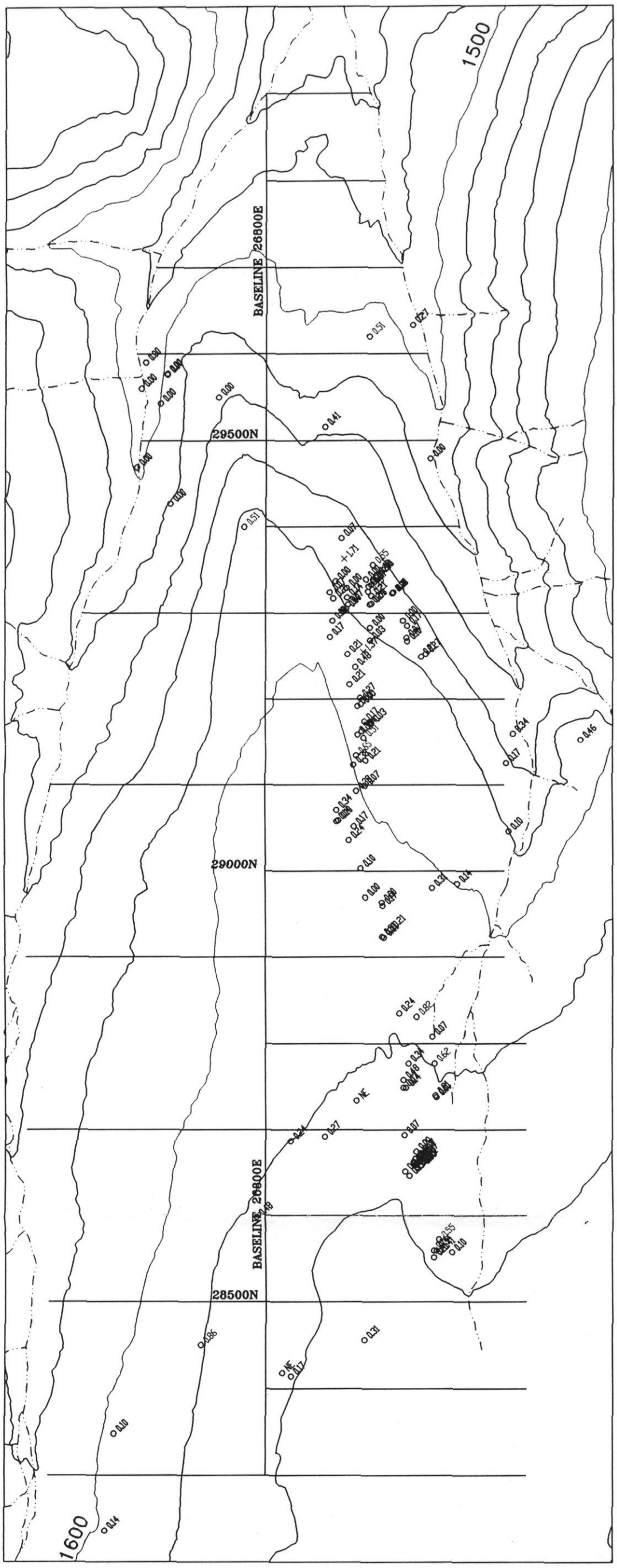
NORTH AMERICAN METALS
HIGHWAY CREEK GRID
CONTOURED GEOCHEMISTRY
MAGNESIUM IN %
Figure 6.2-6

30000N
29500N
29000N
28500N
1500
1600
26500E
27000E

0 125 250
METRES

90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0

NORTH AMERICAN METALS
HIGHWAY CREEK GRID
CONTOURED GEOCHEMISTRY
STRONTIUM IN PPM
Figure 6.2-7



NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE

HIGHWAY CREEK
ROCK SAMPLES

Drawn By: APH

Date: October, 1997

Figure No: 6.3–1

6.3 PROSPECTING

Prospecting was mainly carried out along the eastern edge of the carbonate sliver as most of the anomalous results from pre-1997 soil and rock sampling occurred in this area. In particular prospecting followed up on a Chevron rock sample collected from a subcrop area of hematitic limestone breccia that returned a grade of 1.34 g/t gold. A total of 110 rock samples were collected in 1997. The location of these is shown on Figure 6.3-1.

Roughly 10 percent of the rock samples collected returned anomalous gold values of between 0.50 and 1.71 grams per tonne gold. These values were obtained from two main rock types. The first type consists of variably brecciated and hematitic limestones and bedded cherts of the Permian carbonate sequence of the Stikine Assemblage. The second anomalous rock type is buff to orangy coloured, pyritic, altered mafic volcanics. No bedrock exposure of either of these rock types has been located therefore widths over which they occur is unknown.

6.4 CONCLUSIONS AND RECOMMENDATIONS

Soil and rock sampling in the Highway Creek area has outlined gold anomalies that occur on both sides of a fault bound sliver of Permian carbonate rocks. Along the eastern edge of the carbonate sliver gold values of 25 ppb and greater, with coincident arsenic and mercury values, occur over a strike length of 900 metres. Rock sampling here has identified anomalous gold values in brecciated carbonate rocks and altered mafic volcanic rocks. These rocks are very similar to those which host gold mineralization along the fault structures of the Ophir Break.

A program consisting of soil geochemistry, prospecting and trenching is recommended for the area. Fill-in soil lines are needed on the western side of the grid to better define the gold anomaly there. In addition reconnaisance soil lines should be run across the carbonate sliver to the north of the area covered in 1997 as there is a 2.5 kilometer stretch of prospective ground that runs up to Sam Creek that has seen little exploration work. Prospecting should be carried out along the western edge of the carbonate sliver where gold anomalies have been detected, and over the carbonate sliver to the north towards Sam Creek. Finally, the eastern fault contact between the carbonate and volcanic rocks should be evaluated by trenching, particularly between 29000N and 29300N as the strongest gold values occur there along with some of the strongest arsenic and mercury values. This work will hopefully develop some targets for drilling.

7.0 WEST PROJECT

The West Project encompasses exploration work carried out on a large portion of the Golden Bear property. The project was initiated in 1994 when the discovery of the Kodiak A deposit indicated that there was significant potential for mineralization to be hosted entirely within Permian carbonate rocks. This opened up a large portion of ground to the west of the Ophir Break, which had previously seen little in the way of exploration activity. An extensive soil geochemistry program, coupled with prospecting led to the discovery of the Ridge, South, Limestone Creek Fault and C &C Zones, which have all subsequently been investigated with trenching and diamond drilling. 1997 diamond drilling programs on the Ridge and Limestone Creek Fault Zones have been reported in sections 4.0 and 5.0 of this report, respectively, and trenching carried out in the vicinity of the C &C zone is reported in section 7.4.

7.1 1997 WORK PROGRAM

The 1997 West Project work program focussed on extending the soil geochemistry coverage, and evaluating previously detected anomalies through prospecting and trenching.

Extensions to the soil grid were placed to cover the southern extension of the Limestone Creek Fault and the Totem Silica Zone (previously trenched and drilled by Chevron without soil geochemistry). In addition, detailed infill soil lines were run over an area to the immediate north of Helen Bowl to further define an area of anomalous geochemistry detected by sampling in 1995. These areas are shown on Figure 7.1-1. A total of 593 soil samples were collected.

Prospecting was carried out in several areas on the property to follow up on geochemical anomalies and further trace mineralized boulder trains. A total of 490 rock samples were collected.

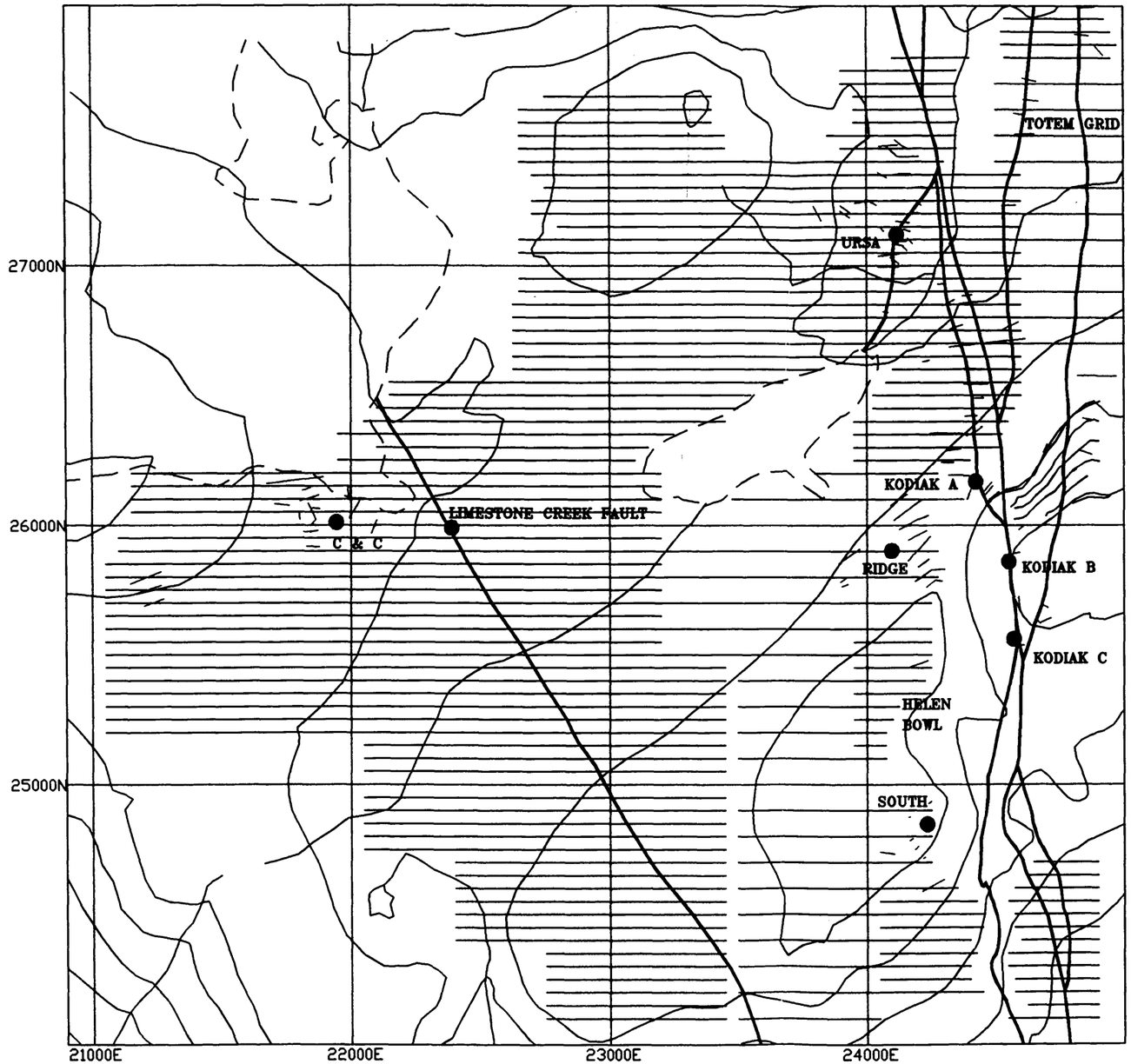
Trenching was carried out mainly on the western portion of the property. Primary goals were to find the source of the C & C boulder train material and to investigate a gold and pathfinder element anomaly that lies at the extreme western edge of the soil grid (see Figure 7.1-1). Ten trenches totalling 1115 metres were dug.

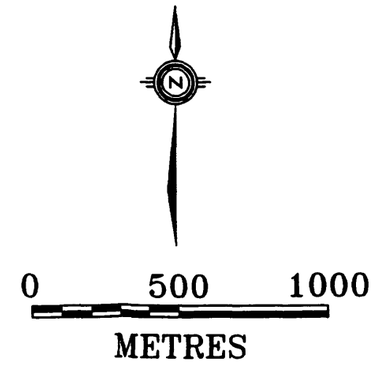
Results of this work are reported below in sections 7.2 to 7.4.

7.2 SOIL GEOCHEMISTRY

All soil samples were analysed at Chemex Labs in Vancouver. The analytical package included 32 element ICP, mercury by cold vapour and gold by fire assay with an AA finish. The 1997 data, along with all previous soil data, is shown on colour contoured Surfer plots on Figures 7.2-1 to 7.2-7.

Previous statistical analysis of soil geochemistry and diamond drillhole geochemistry shows that gold values at Golden Bear can be correlated with weak





1997 SOIL LINE

PRE-1997 SOIL LINE

1997 TRENCH

PRE-1997 TRENCH

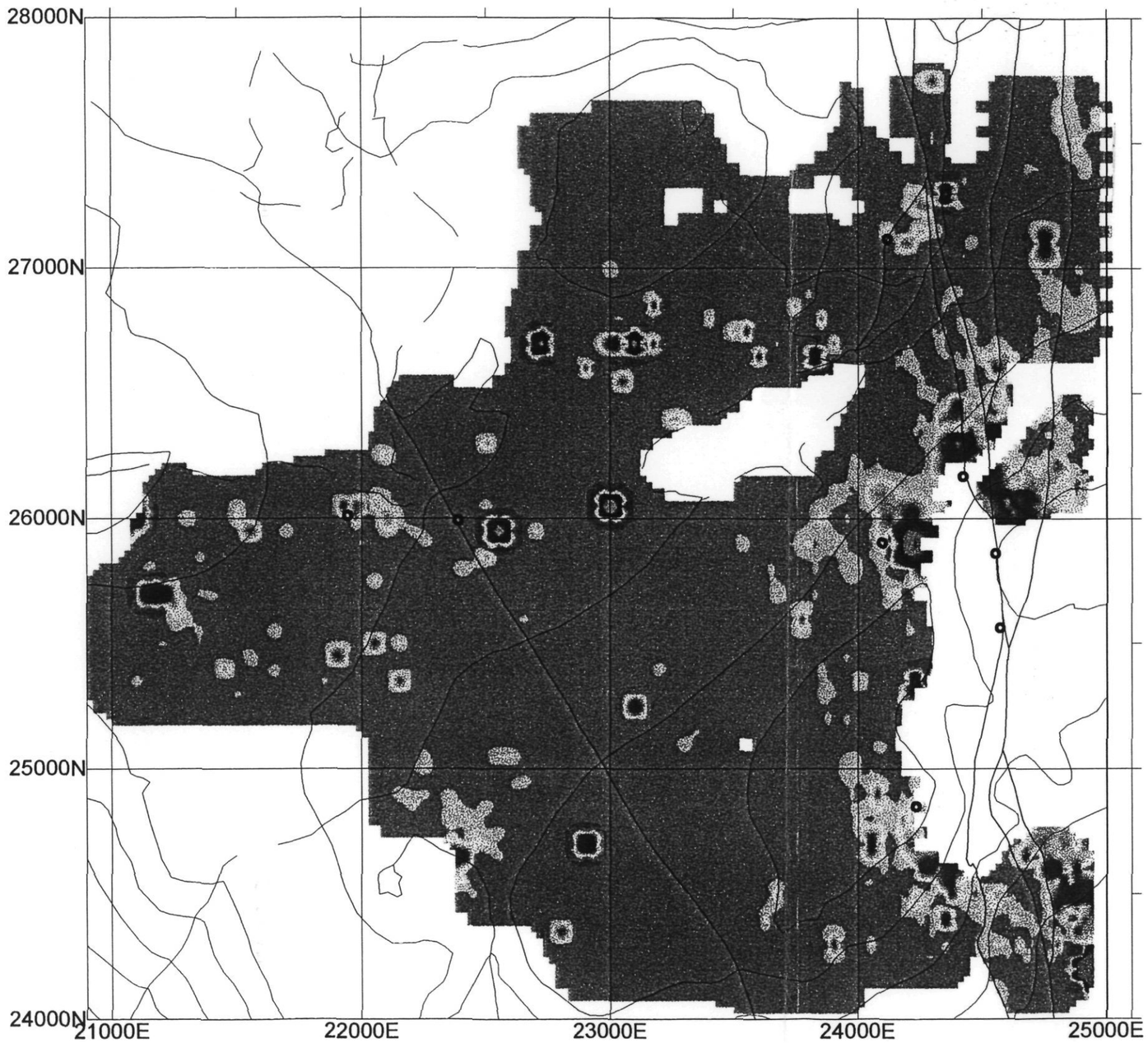
NORTH AMERICAN METALS CORP
GOLDEN BEAR MINE

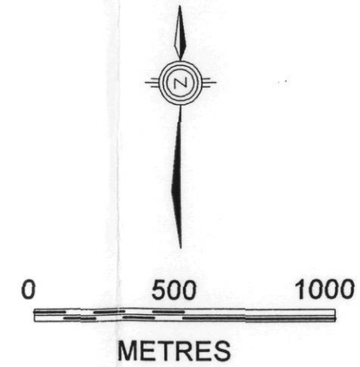
WEST PROJECT SUMMARY MAP

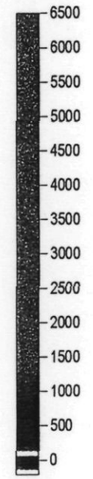
Drawn By: APH

Date: Oct 1997

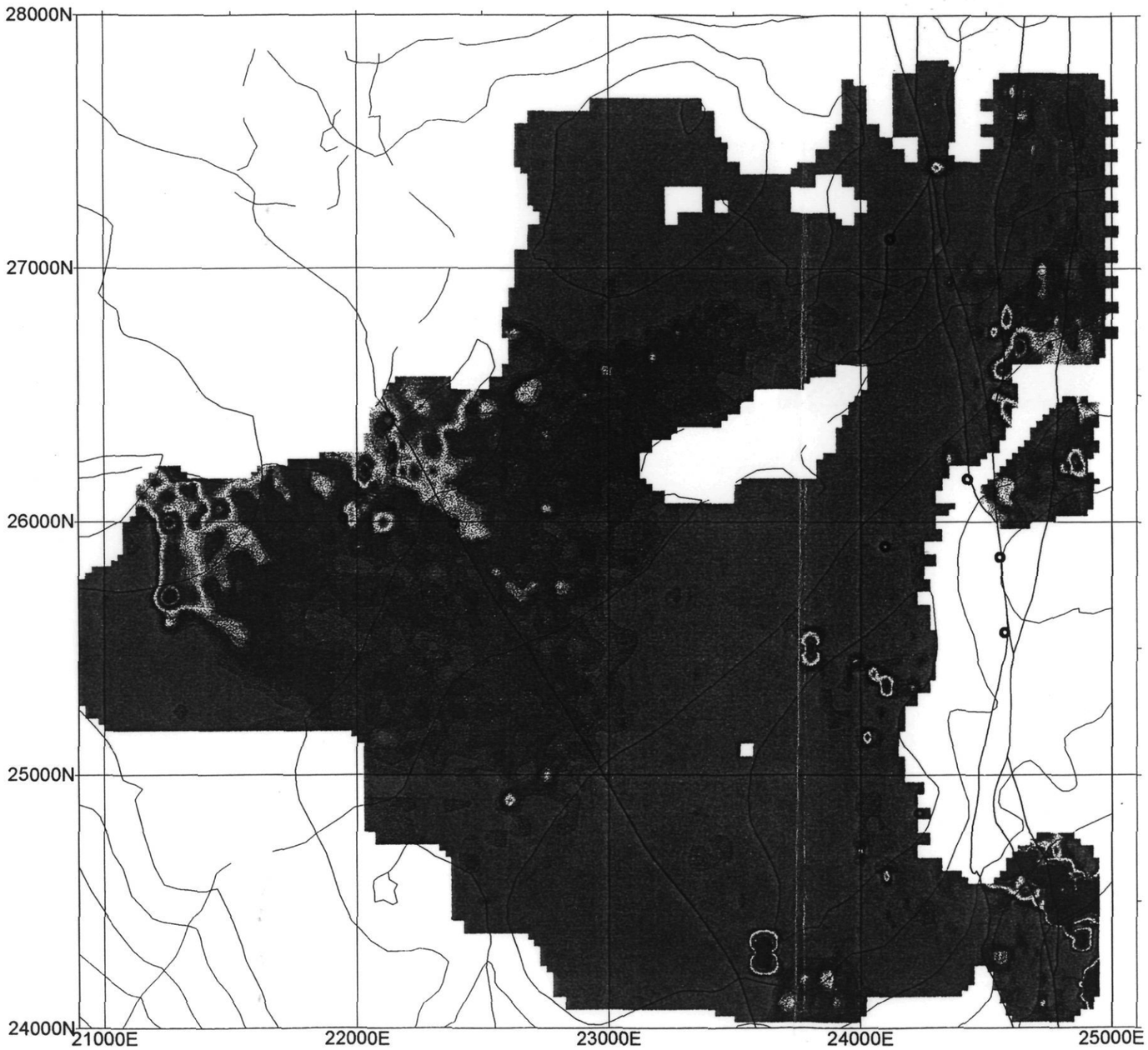
Figure No: 7.1-1

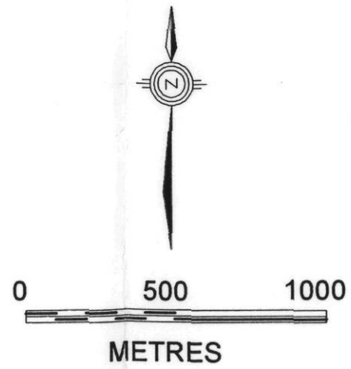


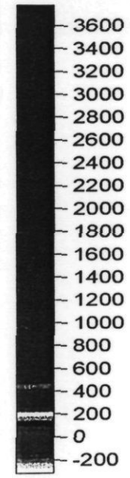




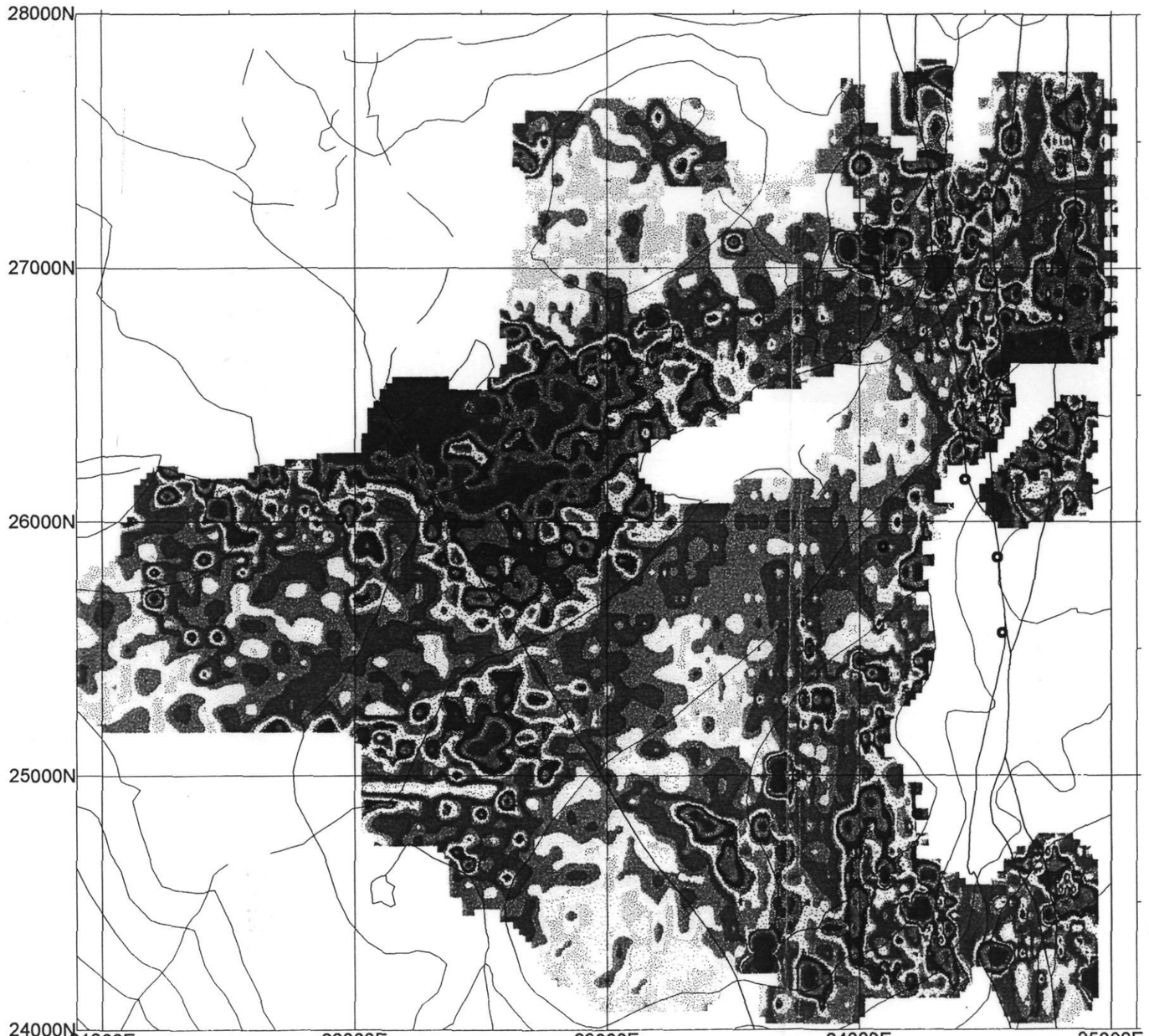
NORTH AMERICAN METALS
CONTOURED GEOCHEMISTRY
GOLD IN PPB
Figure 7.2-1

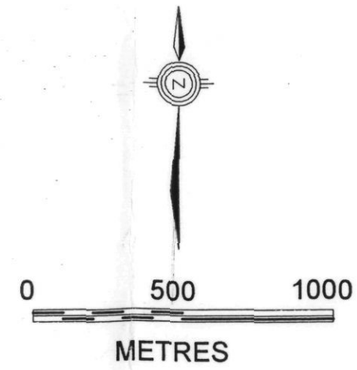


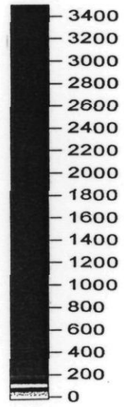




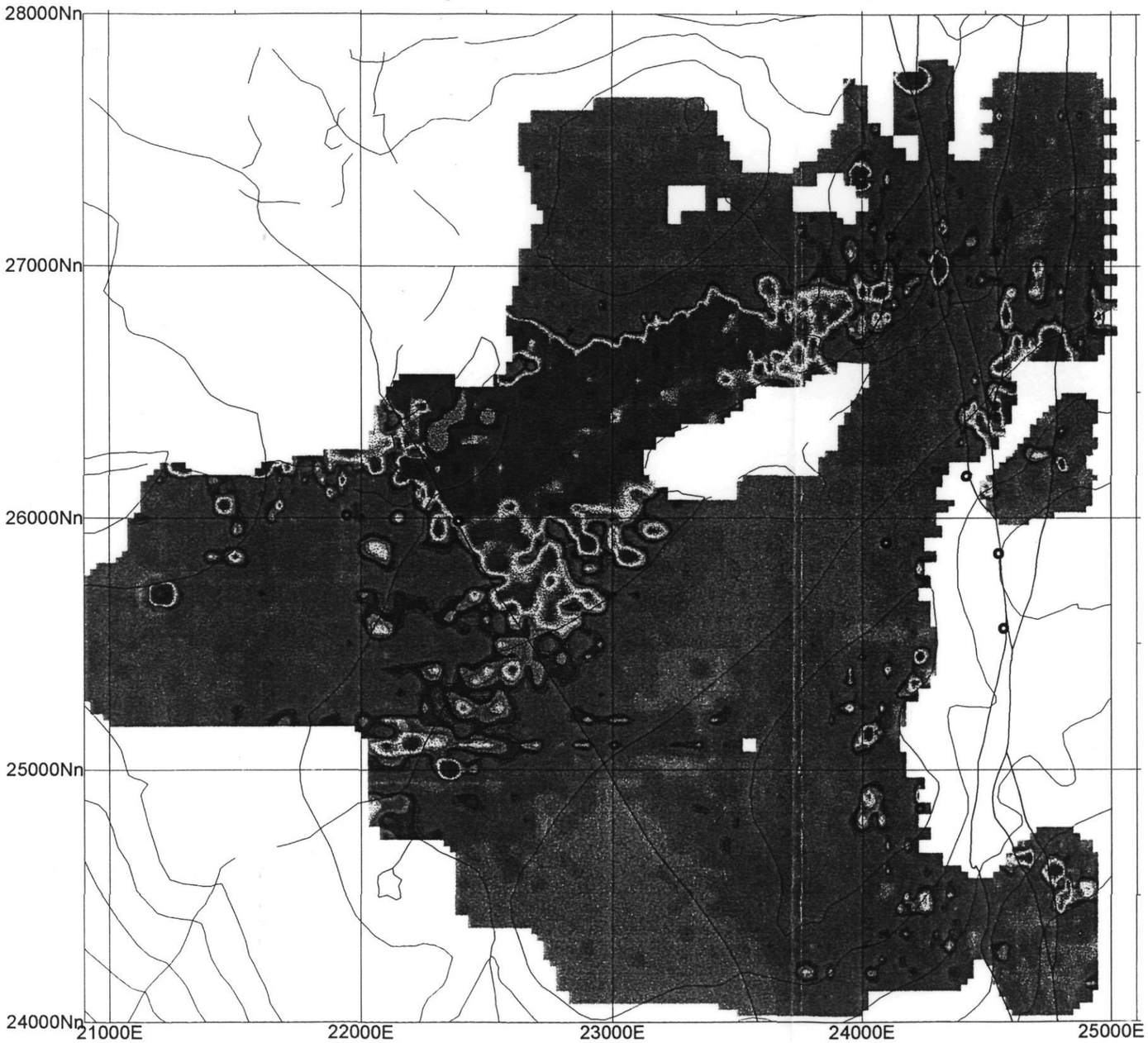
NORTH AMERICAN METALS
CONTOURED GEOCHEMISTRY
ARSENIC IN PPM
Figure 7.2-2

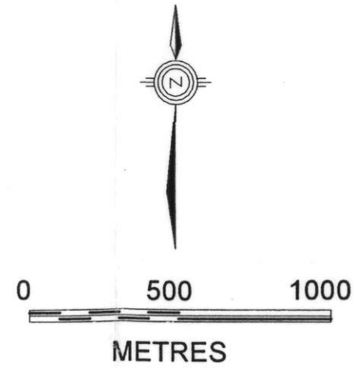


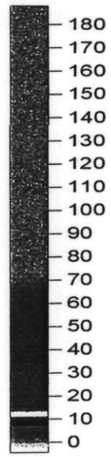




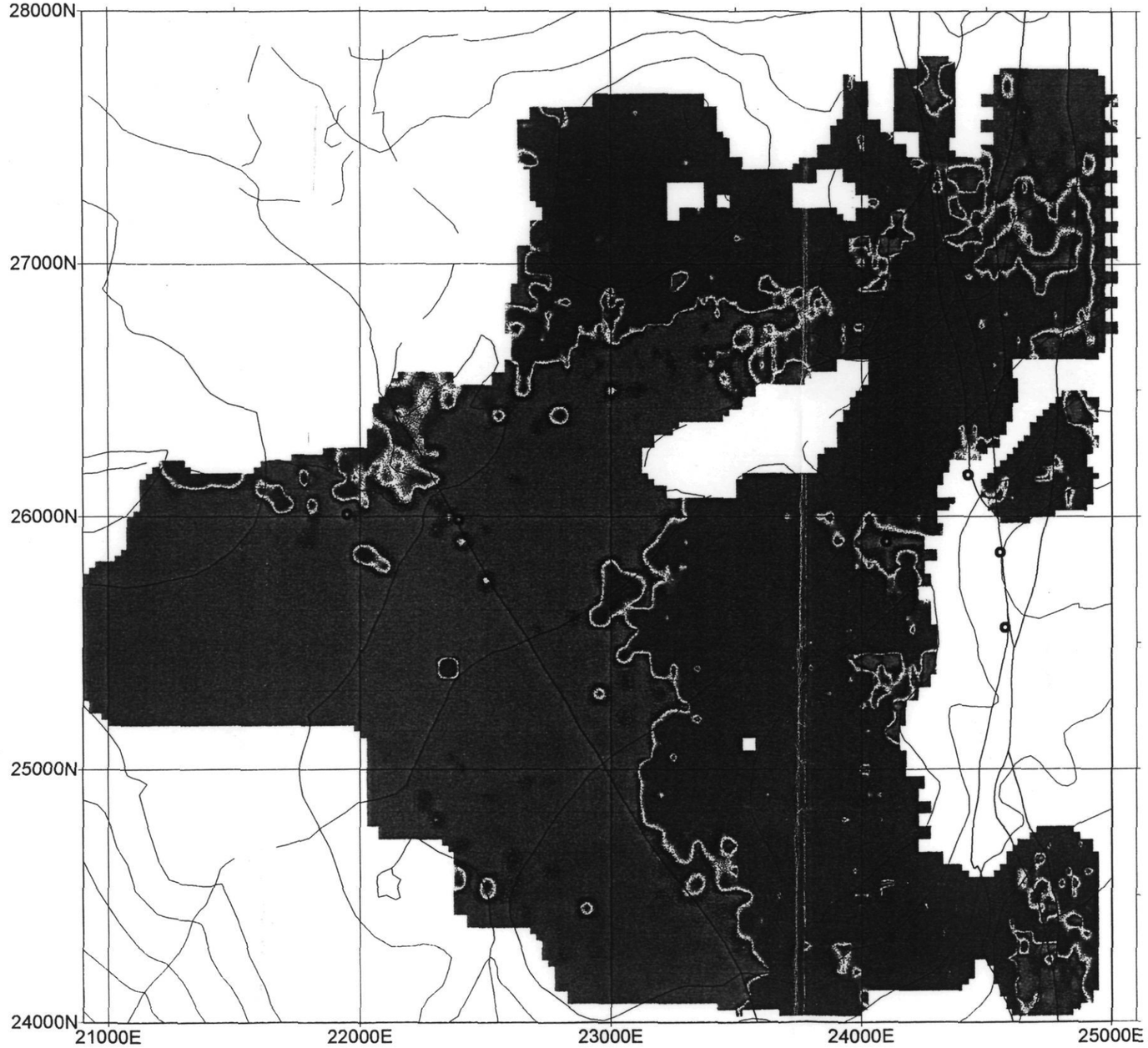
NORTH AMERICAN METALS
CONTOURED GEOCHEMISTRY
MERCURY IN PPB
Figure 7.2-3

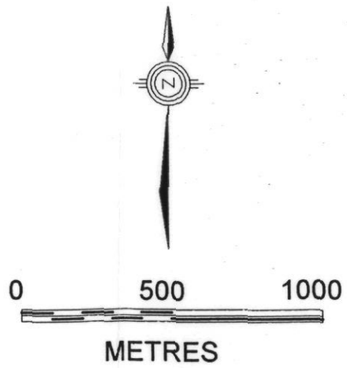


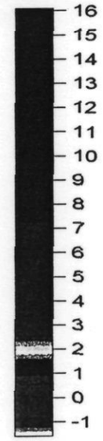




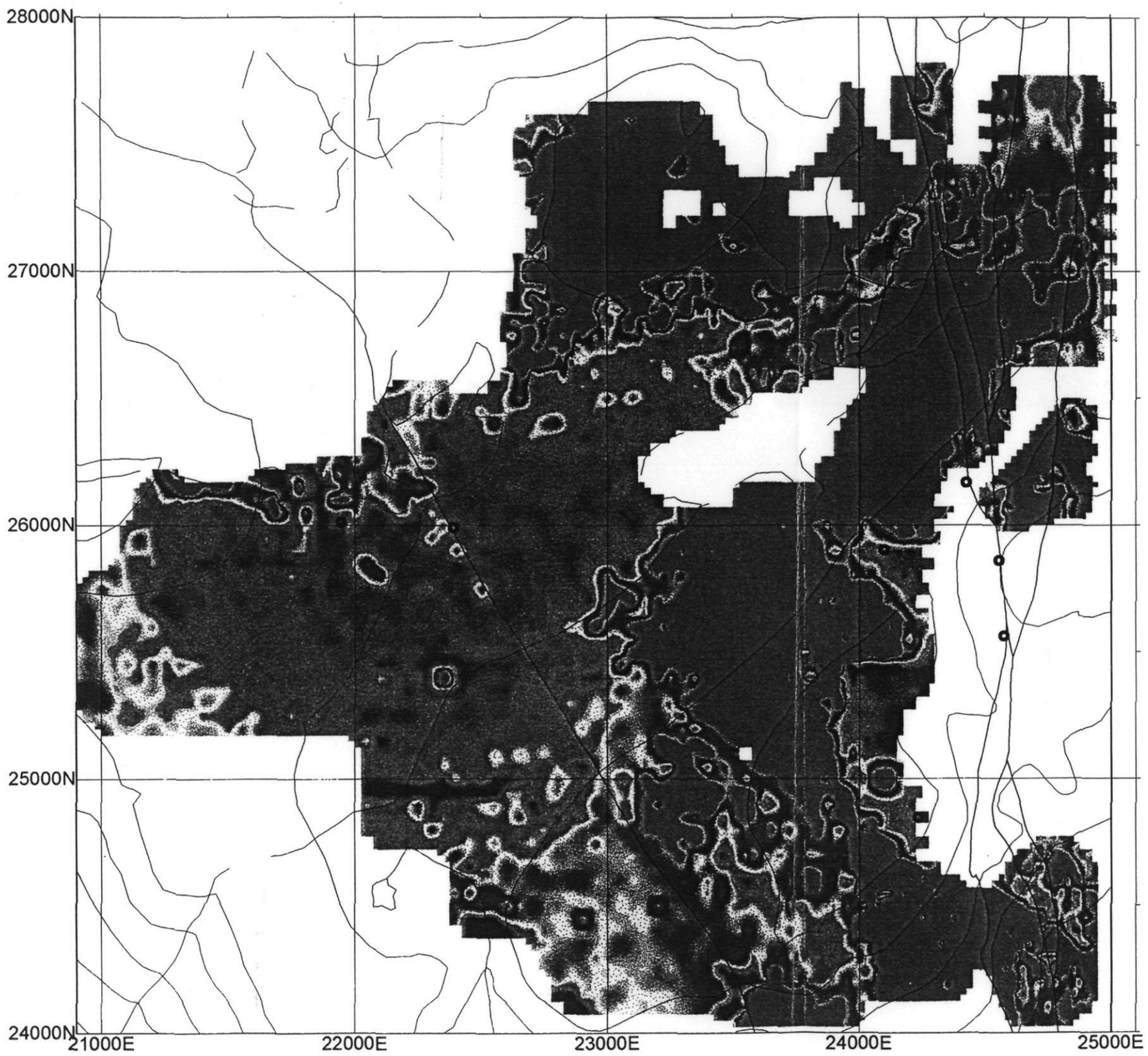
NORTH AMERICAN METALS
CONTOURED GEOCHEMISTRY
ANTIMONY IN PPM
Figure 7.2-4

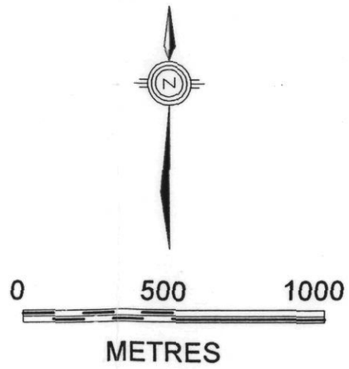


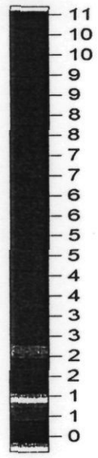




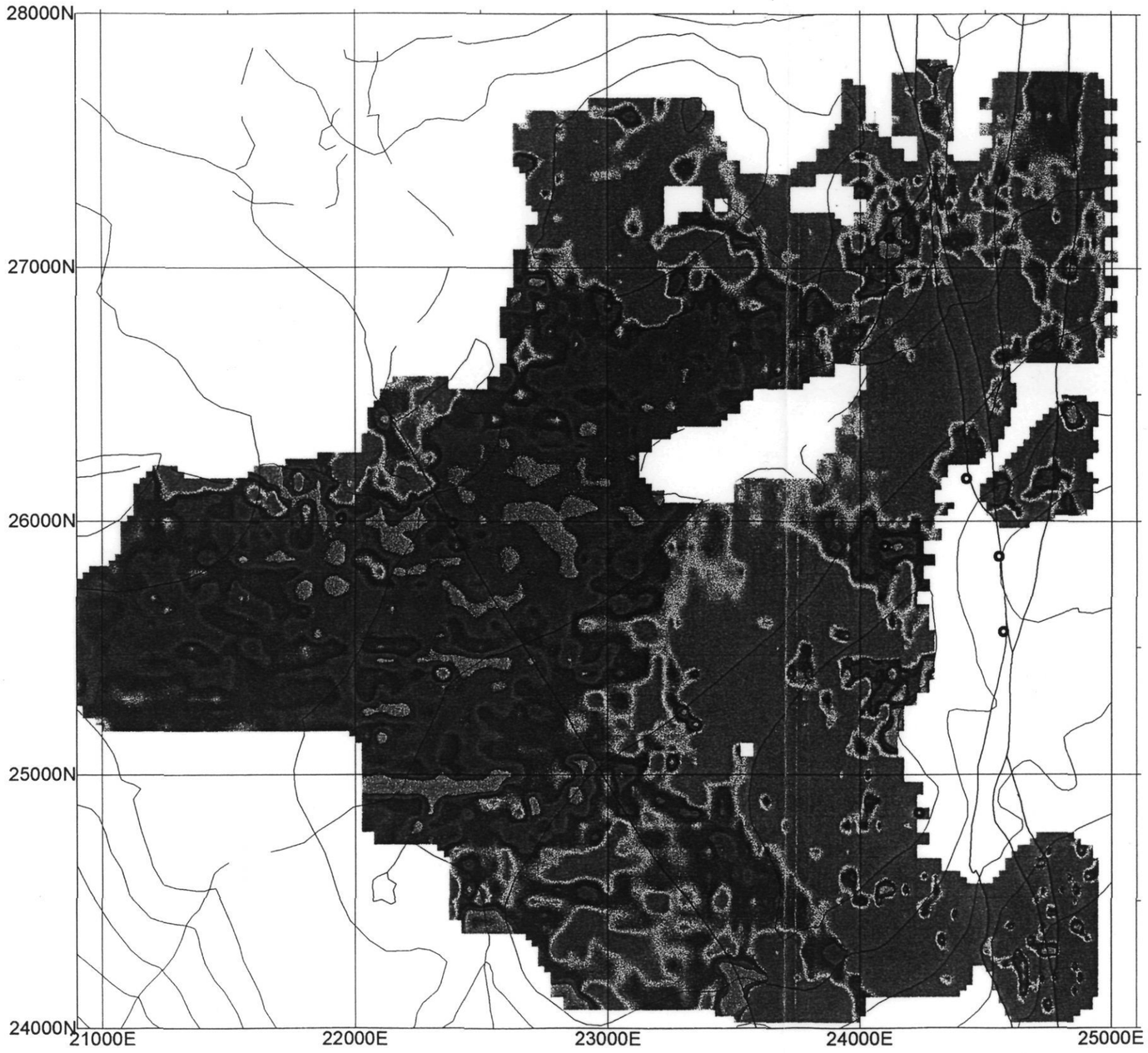
NORTH AMERICAN METALS
CONTOURED GEOCHEMISTRY
CALCIUM IN %
Figure 7.2-5

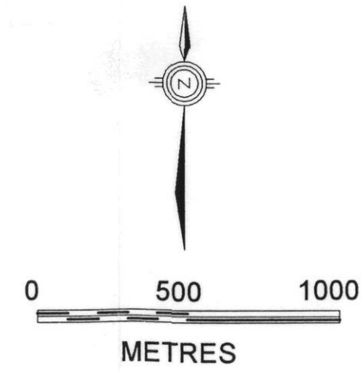


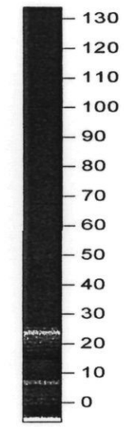




NORTH AMERICAN METALS
CONTOURED GEOCHEMISTRY
MAGNESIUM IN %
Figure 7.2-6







NORTH AMERICAN METALS
CONTOURED GEOCHEMISTRY
STRONTIUM IN PPM
Figure 7.2-7

to moderate As, Hg, and Sb values, and with depleted levels of Ca, Mg and Sr. It should be noted however, that historically in situ gold mineralization at Golden Bear has been located by following up on gold only soil anomalies.

The grid extension over the southern portion of the LCF located a multi-station gold anomaly with values of 50 ppb and greater, centred at 24700N, 22450E which remains open to the west. The anomaly lies to the west of the Limestone Creek Fault and is coincident with outcrop exposure of Stuhini group rocks that include mafic tuffs, dolomite and quartzites. A series of northerly trending, right lateral faults have been mapped transecting the area (Cooley, 1996). Anomalous mercury values are partially coincident with gold values.

Only two other spot gold anomalies were located in this grid extension, at 22900E, 24700N and 22800E, 24350N with values of 800 and 220 ppb gold, respectively. No significant pathfinder element anomalies were located.

The Totem Silica Zone had not been soil sampled as the area was felt by previous property owners to be strongly enough masked by glacial till that recessive fault structures would not be properly expressed geochemically. The area was sampled in 1997 to ensure that significant anomalies were not missed. Two areas of anomalous gold values were detected. The northernmost of these, which has coincident arsenic and mercury values, corresponds to the Black Fault, however this area has also been mapped as a glacial meltwater channel by Savigny (1996). The southernmost of the two is broader, generally contains moderate gold values (25 - 50 ppb), and straddles the Black Fault. A portion of this anomaly overlies apparently unaltered carbonate rocks of the Totem Silica Zone, while the rest occurs in a mixture of glacial till and locally derived material.

Anomalous arsenic, antimony and mercury values also occur in a coincident anomaly at the south end of the Totem grid. This anomaly overlaps only partially with weaker portions of the gold anomaly discussed above.

Sampling in 1995 outlined an area at the south end of the Ridge Zone that has a geochemical signature similar to those found over the Kodiak A and Ursa deposits and the Ridge Zone, but lacking the gold values. The 1997 infill sampling further refined the geochemical expression and four samples returned gold values of 25 ppb or greater. One of these was taken from immediately over the Ridge Fault, which is known to carry gold mineralization, but over narrow widths.

7.3 PROSPECTING

Prospecting traverses were made on virtually all portions of the Golden Bear property in 1997, but focussed more heavily on several discrete targets including the C & C Zone, the Totem Silica Zone, the soil anomaly north of Helen Bowl discussed in section 7.2, and on the fault structures of the Ophir Break in the vicinity of Helen Lake. Results from the 1997 program have been entered into the

Golden Bear database and plotted along with all pre-1997 rock sample data on Figure 7.3-1.

A significant effort was made to further trace the distinctively textured breccia that comprises the C & C boulder train. This material, which carries gold values of up to 34 grams per tonne, was first located in 1996. Trenching in that year at the up ice terminus of the boulder train failed to locate a bedrock source. Additional prospecting in 1997 located breccia float with similar textures, however extensive sampling returned only a few gold values in the 1.0 to 1.5 grams per tonne range. Work in the Totem Silica Zone concentrated on the silicified carbonate and heterolithic breccias that occur along the Black and Central faults. None of the samples from this area returned significant gold values.

Prospecting in the area of the anomalous soil geochemistry at the south end of the Ridge Zone returned some of the best rock sample results of the 1997 field season. Three tight clusters of frost heaved, silicified carbonate breccia boulders, roughly 50 to 75 metres apart, were discovered and sampled. The samples consistently produced gold values ranging between 2.0 and 9.0 grams per tonne. The clusters line up parallel to the Ridge Fault which lies some 30 metres to the east, indicating that they originate from a second mineralized fault structure. In addition the structure seems to cross cut stratigraphy as each cluster was comprised of a different lithology, but displayed the same breccia and alteration features. This area is discussed further in Section 7.4.

Two areas along the Ophir Break to the south of the Kodiak C Zone, in the vicinity of Helen Lake, were examined by prospecting. The first was a fault bound wedge of brecciated dolomites to the immediate west of Helen Lake. This material, which is remarkably similar in appearance to the mineralization of the Kodiak B deposit, produced some 1.0 to 2.0 gram results from samples collected in 1996. Sampling in 1997 consisted primarily of grabs from outcrop in an attempt to see if higher grade or consistently mineralized zone could be outlined. Results do not indicate the presence of such a zone, as no trend could be outlined and the highest gold value returned was 1.78 grams per tonne.

Also examined near Helen Lake was the glacial moraine left behind from at least two, or more likely three advances of Helen Glacier. The oldest of these advanced the furthest and is responsible for the area of anomalous soil geochemistry that can be seen at the extreme southeast corner of grid coverage on Figure 7.2-1. Each successive advance was shorter and took a slightly different path. It was hoped that if mineralized material could be located in any one moraine it would provide a vector back to a particular section of the Ophir Break. Several of the samples collected ran between 1.00 and 2.54 grams per tonne while one sample ran 11.38 grams per tonne. The projected up ice source, if indeed the Ophir Break (rather than the southern portion of the Ridge Fault which crosses Helen Bowl), would be approximately 25200N. This is 200 metres south of the Kodiak C Zone in an area

where there is only a single exploration drillhole, which pierces the Ophir Break roughly 130 metres below surface. This hole did not encounter any significant gold mineralization.

7.4 TRENCHING

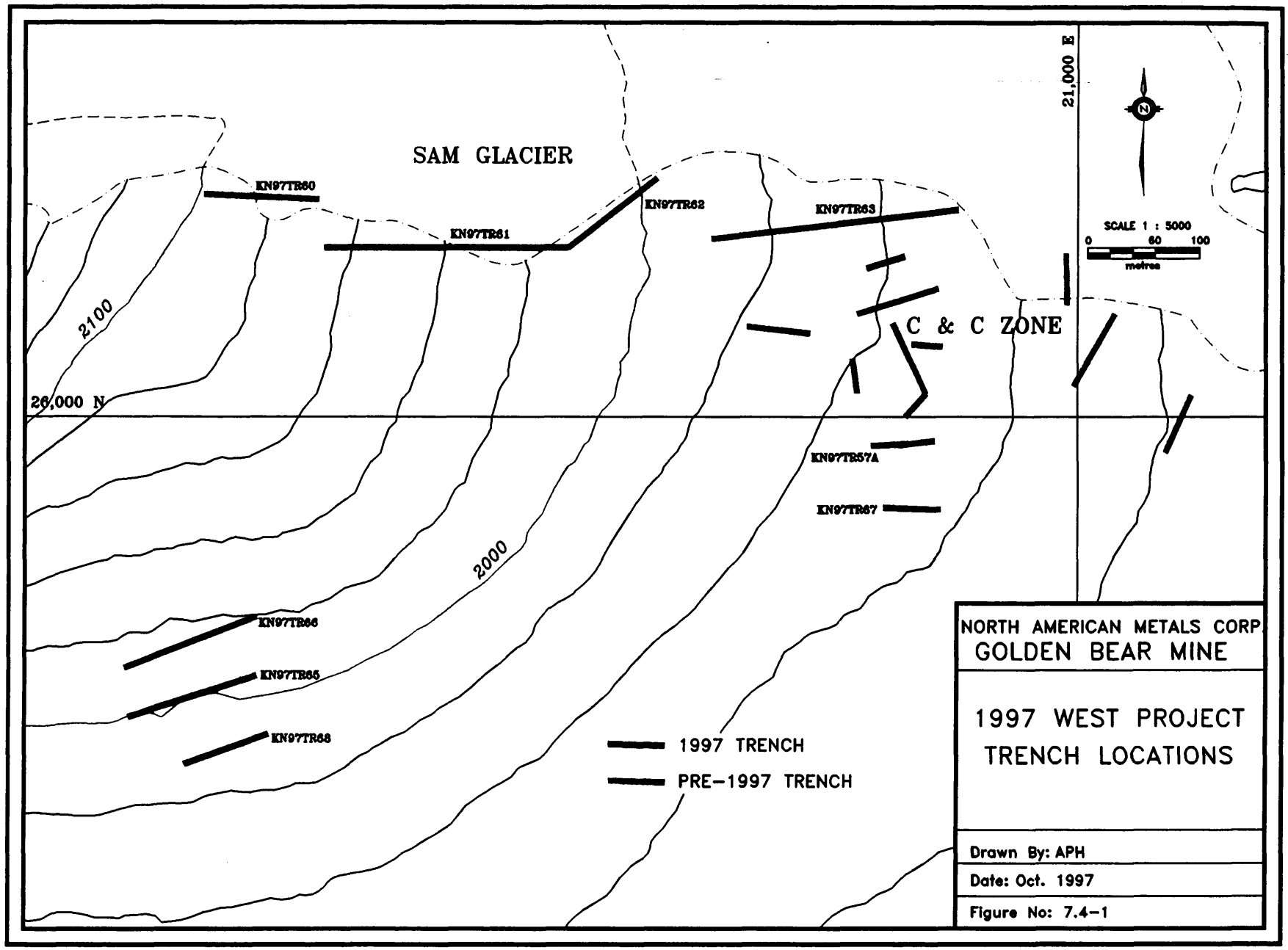
Several targets on the Golden Bear property were tested by trenching in 1997:

- four trenches tested potential up ice sources of the C & C Zone float and two trenches tested the southern strike extension of the in situ mineralization located in the C & C Zone in 1996.
- three trenches tested a coincident gold and arsenic anomaly located on the west edge of the grid at 21250E, 25700N.
- a single trench tested for mineralized structures at the south end of the Ridge Zone where prospecting samples had returned gold values of up to 9.0 grams per tonne.

The locations of all of these trenches, except for the Ridge Zone trench, are shown on Figure 7.4-1. Significant results from all trenches are given in Table 7.4-1.

TRENCH	AREA	FROM	TO	AU	WIDTH (m)
KN97TR57A	C & C	2.0	4.0	2.06	2.0
KN97TR60	C & C	No values			
KN97TR61	C & C	173.0	175.0	1.09	2.0
KN97TR62	C & C	64.0	66.0	2.26	2.0
KN97TR63	C & C	80.0	82.0	1.10	2.0
		112.0	114.0	1.75	2.0
		134.0	136.0	2.50	2.0
		180.0	182.0	1.47	2.0
		184.0	196.0	1.30	2.0
KN97TR64	RIDGE	13.0	15.0	2.27	2.0
		46.0	48.0	4.49	2.0
KN97TR65	WEST	25.0	25.0	1.34	1.0
		27.0	28.0	2.47	1.0
		38.0	48.0	1.19	10.0
		52.0	58.0	2.54	6.0
		114.5	115.5	1.06	1.0
KN97TR66	WEST	49.0	50.0	1.37	1.0
KN97TR67	WEST	No values			
KN97TR68	WEST	60.0	63.5	1.52	3.5
		67.0	69.0	1.10	2.0

TABLE 7.4-1 : 1997 Trenching Summary


SAM GLACIER
KN97TR60
KN97TR61
KN97TR62
KN97TR63
21,000 E
SCALE 1 : 5000
0 60 100
metres
2100
C & C ZONE
20,000 N
KN97TR57A
KN97TR67
2000
KN97TR66
KN97TR65
KN97TR68
1997 TRENCH
PRE-1997 TRENCH
NORTH AMERICAN METALS CORP.
GOLDEN BEAR MINE
1997 WEST PROJECT
TRENCH LOCATIONS
Drawn By: APH
Date: Oct. 1997
Figure No: 7.4-1

7.4.1 C & C Zone

The primary target of the 1997 trenching program was the source of the C & C Zone float, from which high grade gold values have been obtained. Trenching in 1996, while perhaps fortuitous in locating the in situ mineralization, did not find the distinctive breccia or vein breccia material that comprises the C & C Zone boulder train. On the assumption that some degree of glacial transport was involved it was decided to test for a source up ice from the boulder train. Four trenches (KN97TR60 - KN97TR63), dug along the edge of Sam Glacier to test all possible up ice sources, exposed a nearly complete stratigraphic section over a horizontal distance of 700 metres.

The rocks exposed consist of a sequence of interbedded white to dark gray quartzites, phyllitic mafic epiclastic rocks, and argillites. A single quartz and feldspar porphyritic rhyolite dyke was exposed in one trench. Except for very local exceptions the sequence dips moderately to gently to the east. The lighter coloured quartzites, which seem to be the most likely host for the C & C Zone float, primarily occur in the westernmost trenches (KN97TR60 and KN97TR61). Locally the quartzites and argillites have been silicified and minor quartz lined vugs can be noted. The results of chip sampling in these trenches were disappointing, returning only a few widespread, low grade gold values (<2.50 grams per tonne over two metre sample intervals).

Soil profiles were collected every 25 metres from the walls of trenches KN97TR60– KN97TR63 to see if there was any geochemical stratification in the glacial overburden that might reflect repeat advances and retreats of ice from Sam Glacier. If present, such stratification could help to explain the abrupt cutoff of the C & C Zone mineralized float and potentially provide a vector to a possible source. A total of 58 samples were collected from 21 profiles. Only three samples returned gold values greater than detection (5 ppb), the highest being 35 ppb.

Two trenches tested the southern strike extension of the mineralized zone that was trenched in 1996, which consists of a narrow zone of brecciated quartzites that follow the hinge of a northerly trending anticline. Trench KN97TR57A extended the southernmost 1996 trench, which had an open 6.0 gram sample at it's west end. Sampling in 1997 returned 2.06 grams per tonne gold over two metres in the same location as last years results, and the width of the zone was not extended. Trench KN97TR67, which was placed 50 metres to the south, did not return any significant results thereby closing off the zone.

7.4.2 West Zone

Soil geochemistry conducted in 1995 delineated a coincident gold, arsenic and antimony anomaly located one kilometer west and slightly south of the

C & C Zone at 25700 N, 21200 E. Geophysical surveys also run in 1995 outlined a probable NNW trending conductor running through this area as well, making it an encouraging target for trenching.

In 1997, three trenches (KN97TR65, KN97TR66, and KN97TR68) were excavated across the zone roughly 40 to 45 metres apart (Fig. 7.4.2-1). A series of interbedded quartzites and phyllitic mafic epiclastics were exposed in the eastern portion of the trenches with weakly to unaltered massive volcanics in the western edges. A wedge of volcanics including a porphyritic flow and a weakly altered tuff occurred between the phyllite and quartzite in the northernmost trench. The sequence tends to strike roughly NNW and dips moderately to the west at 40 to 60 degrees.

A subvertical fault or shear structure striking approximately 355 degrees appears to transect all three trenches with mineralization occurring along and adjacent to the structure in the two southern trenches. Mineralization appears to be closed off to the north but remains open to the south. In the centre trench (KN97TR65), chip samples taken across the shear/gouge zone returned gold values of up to 2.54 grams per tonne over 6.0 metres, and 1.19 grams per tonne over 10 metres. The southernmost trench (KN97TR68) returned gold values of up to 2.40 grams per tonne over 1.5 metres. It should be noted that a 19 metre section within the mineralized phyllite in KN97TR68 could not be sampled due to the unstable walls and extreme depth of the trench (>5 metres) over this interval. Assay results for the West Zone trenches are shown in Table 7.4-1.

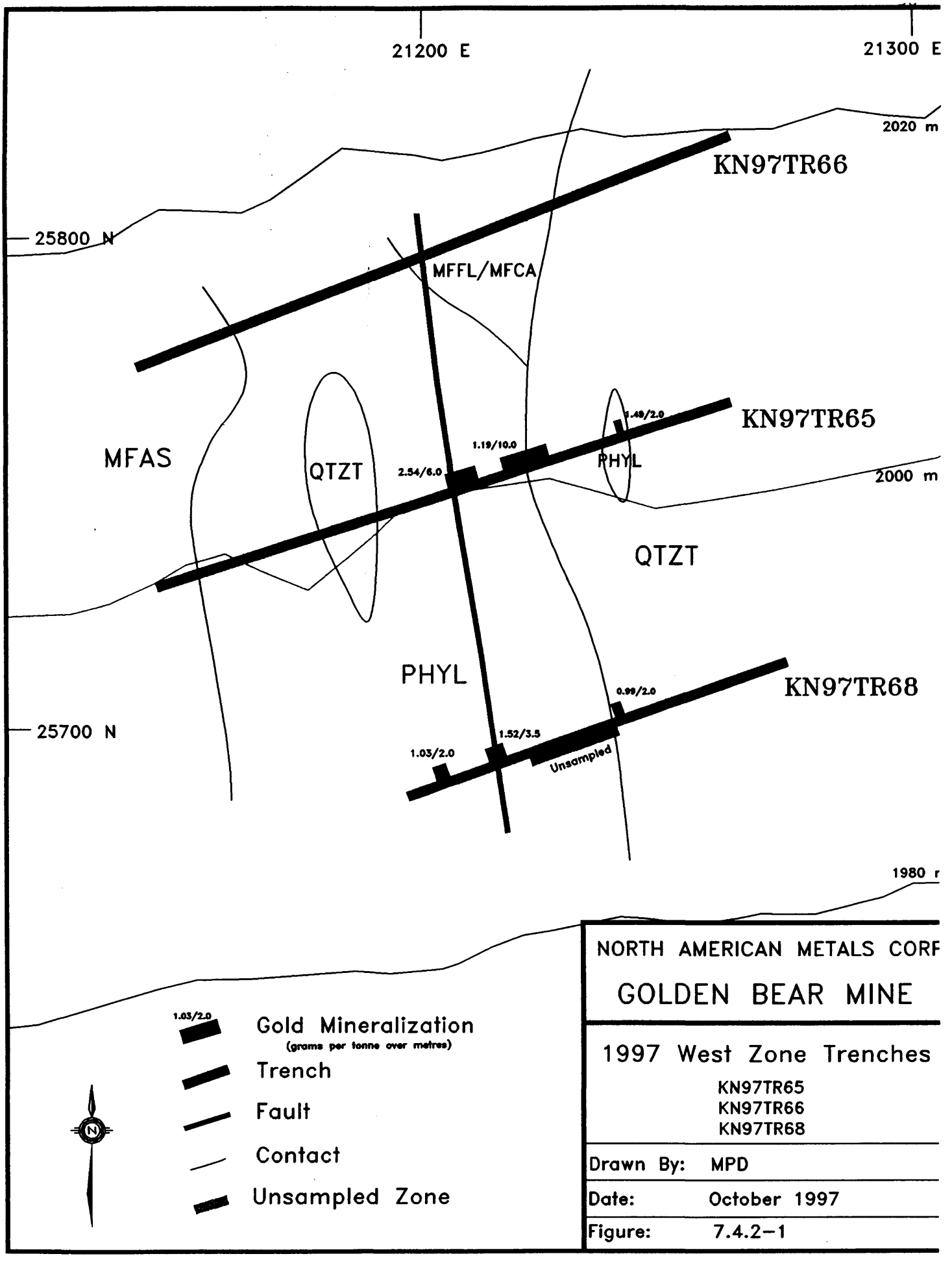
Other structures on a more local scale include internal folding, quartz and quartz/carbonate veining, and minor shearing. An intensely clay altered subvertical felsic dyke cuts through the southernmost trench.

7.4.3 Ridge Zone

Figure 7.4.3-1 shows the location of trench KN97TR64, which was dug at the south end of the Ridge Zone. The trench exposed both the Ridge Fault and, a second subparallel structure 30 metres to the east, whose presence had been suggested by several clusters of mineralized carbonate breccia. Sampling returned gold values of 4.49 g/t gold over two metres from the Ridge fault and 2.27 g/t gold over two metres from the second fault stucture. The faults are separated by 30 metres of barren limestone.

7.5 CONCLUSIONS AND RECOMMENDATIONS

Exploration work during 1997 identified three new zones of gold mineralization. Additional work is required on each zone to further define the extent and nature of the mineralization.



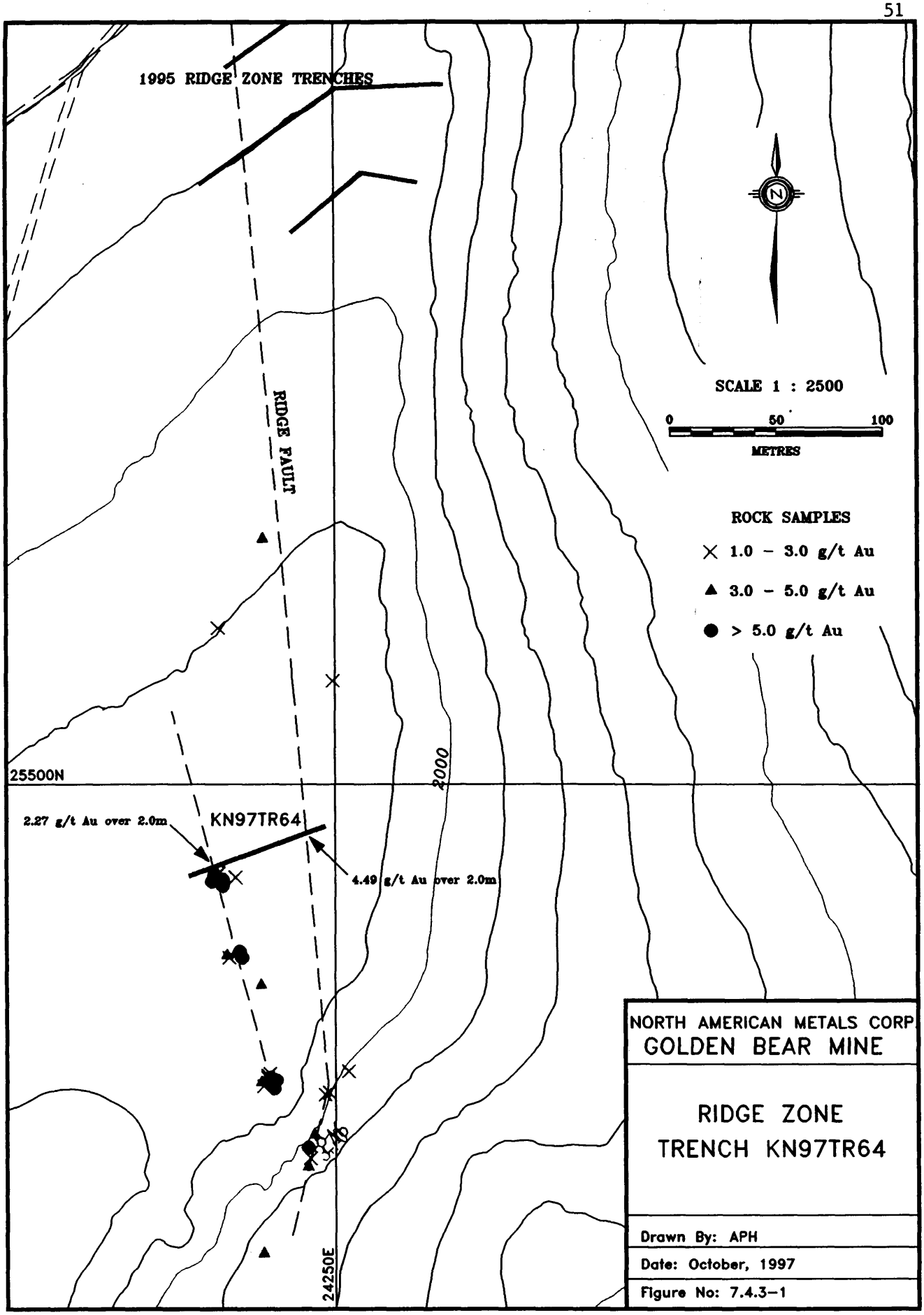
NORTH AMERICAN METALS CORP

GOLDEN BEAR MINE

1997 West Zone Trenches

KN97TR65
KN97TR66
KN97TR68

Drawn By:	MPD
Date:	October 1997
Figure:	7.4.2–1


1995 RIDGE ZONE TRENCHES
RIDGE FAULT
N
SCALE 1 : 2500
0
50
100
METRES
ROCK SAMPLES
1.0 - 3.0 g/t Au
3.0 - 5.0 g/t Au
> 5.0 g/t Au
25500N
2000
2.27 g/t Au over 2.0m
KN97TR64
4.49 g/t Au over 2.0m
24250E
NORTH AMERICAN METALS CORP
GOLDEN BEAR MINE
RIDGE ZONE
TRENCH KN97TR64
Drawn By: APH
Date: October, 1997
Figure No: 7.4.3-1

Soil geochemistry outlined a number of samples anomalous in gold but most of these occurred at single locations. One multi-station gold anomaly was located west of the Limestone Creek Fault on the southern grid extension at 24700 N, 22450 E. It returned values of 50 ppb and greater and remains open to the west. Further work should include an extension of the present soil grid westward to better define the limit of the soil anomaly. Prospecting may help identify lithologies and textures associated with the gold values, and a small trenching program is recommended to locate the source of the anomaly. Two single station gold anomalies warrant re-examination due to their high gold values. Values of 800 and 220 ppb gold were located at 24700N, 22900E and 24350N, 22800E respectively, and will require resampling as well as prospecting for the associated rocks.

Prospecting occurred in numerous areas but only one discovery immediately north of Helen Bowl returned grades high enough (2 to 9 g/t gold) to warrant a trench. Trench KN97TR64 was excavated across one of the clusters of silicified carbonate breccias and revealed two narrow mineralized zones, one each along the Ridge Fault and a subparallel structure lying 40 metres to the west. Chip samples across these zones returned gold values of 4.49 g/t over two metres from the Ridge Fault and 2.27 g/t over two metres from the second structure. A program of continued prospecting and trenching is proposed for this area in order to locate greater widths of mineralization.

Three trenches tested a coincident gold-arsenic-antimony anomaly in the West Zone. A series of metamorphosed epiclastic volcanics were exposed that were transected by a NNW trending structure. Mineralization was closed off in the northernmost trench while both trenches to the south contained anomalous gold values within and adjacent to the structure. Mineralization remains open to the south, therefore further work is necessary to delineate this zone. Trench KN97TR65 returned gold values of 2.54 g/t over six metres and 1.19 g/t over ten metres. These two zones are only four metres apart. Trench KN97TR68 returned gold values of 1.10 g/t over two metres and 1.52 g/t over three and a half metres. It is recommended that KN97TR68 be widened and sampled over the 19 metre zone that could not be sampled due to unsafe conditions. This will help define the extent and grade of mineralization at the surface. Trenching should continue southward at 40 to 50 metre intervals until the mineralization is closed off. Contingent on assay results from the trenching, a small drill program would be useful in testing mineralization along strike at depth.

8.0 REGIONAL RECCONNISANCE

For the past few years exploration efforts have been concentrated on locating ore deposits within the Golden Bear Mine vicinity. While these efforts have been quite successful, local deposits will soon be exhausted, therefore exploration must begin to focus in other areas. A distinct advantage for NAMC in doing regional exploration is the location of the minesite in a very remote area. Many areas too inaccessible and costly for other companies to explore are within reasonable distances from the Golden Bear minesite. A regional evaluation could provide new prospects while being fairly cost effective and should be conducted before activities cease at the Golden Bear Mine.

8.1 1997 WORK PROGRAM

Geological maps, reports and regional geochemical survey data were used to locate areas of potential gold mineralization similar to that of the Golden Bear deposits. Any areas containing Permian limestones and Triassic volcanics, anomalous soil or silt samples (>10 ppb Au), structural disturbance, and located within approximately 30 kilometres of the minesite were of special interest. Two areas meeting most of the above criteria were located with one area being visited twice for examination. (Figure 8.1-1).

The first area of interest occurs twenty four kilometres southeast of the Golden Bear minesite directly east of the Sheslay River. A package of Permian limestones and Upper Triassic Stuhini mafic metavolcanics occur within in late Triassic and Middle Jurassic diorites and granites, (Figure 8.1-2). The possibility of gold bearing carbonate breccias occurring adjacent to the carbonate-volcanic contact similar to those at Golden Bear were investigated.

The second area of interest is within a valley approximately twenty five kilometres west of the minesite. Geological maps indicate lithologies including fine-grained Triassic clastic sediments and carbonates with interbedded volcanics. Most regional geochemical samples taken within the valley are weakly to moderately anomalous in gold (11 to 85 ppb Au).

8.2 RESULTS

Two, half days were spent on the Sheslay River project prospecting the northern half of the carbonate-volcanic contact and adjacent carbonate breccias. The extreme northern section of the carbonate is well exposed as steep cliffs and slopes. Most of the contact southward is covered by glacial debris and organics except for a few small ridges and cliffs where the rock outcrops. Although previous regional mapping did not indicate any major structures, faulting and brecciation was evident upon investigation in two locations.

133°00′ 45′ 30′ 15′ 132°00′

58°00′

15′

METLATULIN MTN

ALSEK RANGE

CHEJA RANGE

Talsamenie Lake

Whitesail Lake

BATES PEAK 7725

8826

7903

Mo

Cu

Sb

asb

Ph

SCALE 1:250,000

0 5 10 15 20

Kilometres

LEGEND

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT

19 — *Fluvatile gravel, sand, silt, glacial outwash, till, alpine moraine and undifferentiated colluvium; 19a, landslides*

TERTIARY AND QUATERNARY
LATE TERTIARY AND PLEISTOCENE
LEVEL MOUNTAIN GROUP

18 — *Basalt, olivine basalt, related pyroclastic rocks; in part younger than some of 19*

17 — *HEART PEAKS FORMATION rusty-weathering trachyte and rhyolite flows, pyroclastic rocks, and related intrusions*

CRETACEOUS AND TERTIARY
LATE CRETACEOUS AND EARLY TERTIARY
SLOKO GROUP

14 — *Light green, purple and white rhyolite, dacite, and trachyte flows, pyroclastic rocks, and derived sediments*

16 — *Probably genetically related to 14; 15, Felsite, quartz-feldspar porphyry 16 Medium- to coarse-grained, pink, biotite-hornblende quartz monzonite*

PRE-UPPER CRETACEOUS

13 — *CENTRAL PLUTONIC COMPLEX. granodiorite, quartz diorite minor diorite, leuco-granite, migmatite and agmatite; age and relationship to 12 uncertain*

JURASSIC AND/OR CRETACEOUS
POST MIDDLE JURASSIC

12 — *12a, hornblende-biotite granodiorite; 12b, biotite-hornblende quartz diorite; 12c, hornblende diorite; 12d, augite diorite Age and relationship to 13 uncertain*

JURASSIC
LOWER AND MIDDLE JURASSIC
LASERGE GROUP (10, 11)

11 — *TAKWAHONI FORMATION granite-boulder conglomerate, chert-pebble conglomerate, greywacke, quartzose sandstone, siltstone, shale*

10 — *INKLIN FORMATION well bedded greywacke, graded siltstone and silty sandstone, pebbly mudstone, limy pebble conglomerate; 10a, limestone*

TRIASSIC
UPPER TRIASSIC

9 — *SINWA FORMATION? limestone; minor sandstone, argillite, chert*

STUHINI GROUP (7 8)

7 8 — *7. Mainly volcanic rocks; andesite and basalt flows, pillow lava, volcanic breccia and agglomerate, lapilli tuff; minor volcanic sandstone, greywacke, and siltstone 8. KING SALMON FORMATION thick bedded, dark greywacke, conglomerate, mudstone, siltstone, and shale; minor andesitic lava, volcanic breccia, tuff, limestone, limy shale, locally enclosed in 7*

LOWER OR MIDDLE TRIASSIC (?)

6 — *Fine- to medium-grained, strongly foliated diorite, quartz diorite, and minor granodiorite; age uncertain*

TRIASSIC AND EARLIER
PRE-UPPER TRIASSIC

4 — *Fine-grained, clastic sediments and intercalated volcanic rocks, largely altered to greenstone and phyllite; chert, jasper, greywacke, limestone. 4a, mainly chert, slate, argillite; minor greenstone; 4b, mainly greenstone; 4c, limestone, may include some 1*

5 — *Quartz-albite-amphibole gneiss, quartz-biotite schist, garnetiferous schist, augen gneiss, tremolite marble, mainly metamorphosed equivalents of 3 and 4, may be in part older than 3*

PERMIAN

3 — *Chiefly limestone and dolomitic limestone; minor chert, argillite, sandy limestone*

PERMIAN (?)

1 2 — *May not all be of the same age 1 Peridotite, serpentite, small irregular bodies of gabbro and pyroxene diorite 2 Fine- to medium-grained gabbro and pyroxene diorite*

PALEOZOIC

A — *Diorite gneiss, amphibolite, migmatite, age unknown*

Geological boundary (defined, approximate, assumed)

Bedding, tops known (horizontal, inclined, vertical, overturned)

Bedding, tops unknown (inclined)

Primary flow structures in igneous rocks (inclined, vertical)

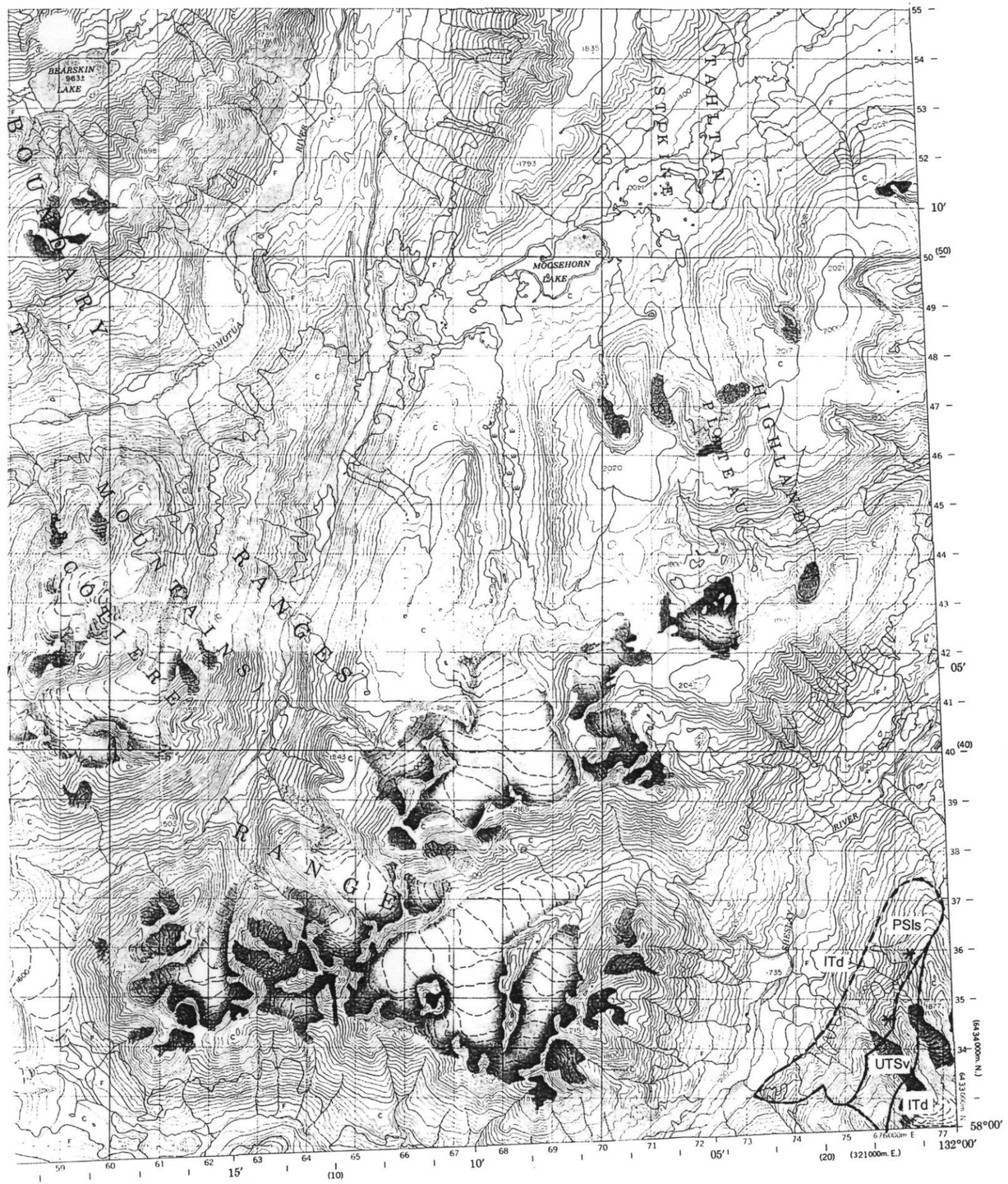
Schistosity, gneissosity (inclined, vertical)

Lineation (inclined)

Trend of complexly folded beds

Fault (defined, approximate, assumed)

NORTH AMERICAN METALS CORP	
GOLDEN BEAR MINE	
REGIONAL GEOLOGY	
Figure: 8.1–1	NTS: 104K
Date: November 1997	



LEGEND

UTSv – Upper Triassic Stuhini Volcanics

PSIs – Permian Limestone

ITd – Late Triassic Diorite

Golden Bear Mine

* Sheslay Sample Locations

SCALE 1:100,000

0 1 2 4 6 8

Kilometres

NORTH AMERICAN METALS CORP	
GOLDEN BEAR MINE	
REGIONAL GEOLOGY	
Figure: 8.1–2	NTS: 104K
Date: November 1997	

A total of thirty nine grab and float samples were taken from two areas within the carbonate adjacent to the contact. In the northernmost location a variety of carbonate breccias were located and sampled. Most breccias were hematitic and variably silicified with occasional very fine grained sulphides. Lithologies included chert, cherty dolomite, heterolithic, and limestone breccias as well as hematitic and silicified limestones. Clasts ranged from angular to subrounded to variable. Gold assays returned values from trace to 3.33 grams per tonne. The northern area has an overall red color due to the moderate hematite content of the rocks.

The second sample location was approximately one and a half kilometres southwest on a small ridge where outcrop was exposed. Once again brecciated carbonates were found and sampled, but the hematite content in this area was significantly lower to non-existent in places. Gold assays returned values from trace to 0.58 grams per tonne.

8.3 CONCLUSIONS AND RECOMMENDATIONS

The Sheslay River area was found to have carbonate breccias adjacent to a carbonate/volcanic contact similar to those found at Golden Bear Mine. Although assay values were generally less than 0.5 grams per tonne, one sample returned a gold assay of 3.33 grams per tonne. Since gold mineralization is evident and the mine access road is visible from the northernmost outcrop, this is an interesting and viable exploration target. It is recommended that further work be carried out in this area. Prospecting and more detailed sampling along with mapping will help define the extent of the structural disturbance, alteration and mineralization. Large soil grids would not be easily located due to the steep terrain, but contour sampling and small localized soil grids may be useful in identifying widths of mineralization across or adjacent to the contact.

Prospecting and soil geochemistry are proposed for the West Valley area in order to locate any lithologies or possible structures that may be gold bearing. Previous regional geochemistry indicates that anomalous gold values exist but the source of these values has not been identified. Limited mapping and prospecting on two properties in this area returned a number of samples with anomalous to low grade gold values.

9.0 RECLAMATION

Reclamation work was carried out by the exploration department in 1997 on both the Golden Bear Mine property and the Bandit property, which lies 15 kilometres due south of Bearskin Lake. This section reports the work carried out in 1997 and summarizes the outstanding exploration disturbances that remain.

9.1 GOLDEN BEAR MINE

The current state of surface disturbance for most of the Golden Bear property is shown on Figure 9.1-1. The figure shows all surface disturbance created by exploration efforts, including those from prior to 1993, the reclamation of which is covered by the Decommissioning and Reclamation Plan for the Golden Bear Mine (June 1, 1993). This early disturbance occurred in the Totem Silica, Kodiak C and Bear North areas. All exploration disturbance including roads, drill pads and trenches, have been colour coded to differentiate between those that have beenn reclaimed and those that have hane not.

Exploration surface disturbance since 1993 has occurred primarily in the following zones: Kodiak A, Kodiak B, Ursa, Ridge, South, Limestone Creek Fault and C & C. The first three of these zones are now in a five year mine plan that includes two open pits, one underground mine, two heap leach pads, two recovery plants and interconnecting haul roads. This development will obscure a majority of exploration workings in both the Kodiak A and Ursa areas, and also those on the ground between the two deposits. The disurbance in the area of the third deposit in the mine plan, the Kodiak B, will be partially obscured by development, however the disturbance is not that severe, as many of the holes into the Kodiak B deposit were drilled in winter from pads made of snow.

9.2 BANDIT PROPERTY

Since the completion of an exploration program in 1994, required reclamation work on the Bandit property has consisted of removal of a 250 gallon steel water tank left on the property by Diamet in 1991, and the cleanup of two timber framed drill pads from the 1994 program. This work was completed in August and September of 1997 when the tank was flown to the minesite and the two pads were dismantled and the timber burnt.

With the reclamation work on the property complete, a request was made for release of the $10,000 reclamation bond that had been submitted for the property. The request was approved in early October 1997, and the funds returned. The ministry did request that NAMC visit the burn sites next year to finish up any minor burning and remove any non-combustible material.

9.3 CONCLUSIONS AND RECOMMENDATIONS

Reclamation of exploration surface disturbance on the Golden Bear mine property should be continued on a yearly basis, particularly in regions that are no longer of interest. Areas that may be of continuing exploration interest will not be reclaimed until they have been fully assessed for the presence of economic gopld mineralization.

10.0 QUALITY CONTROL

1997 was the second year running that a quality control program has been used by the exploration department to monitor the quality of results from NAMC's on site laboratory at Golden Bear. The program consisted of regularly submitted blanks and standards, and the running of check assays on high grade and suspect samples.

10.1 STANDARD PREPARATION

At the start of the 1997 field season standards of two different grades, 1g/t and a blank, were prepared. The 1 gram standard was prepared from composited Kodiak A drillhole sample rejects. The material was thoroughly mixed and then pulverized and screened. The resulting standard, which consisted of material that passed a -140 mesh screen, was then homogenized in an electric V-mixer. The blank is comprised of barren carbonate that was collected from outcrop near Limestone Creek, and crushed to a 1.5" size.

The mean value for the 1 gram standard was determined by round-robin analysis, with 5 cuts sent to five different labs. The labs are: Bondar Clegg, Min En, Acme, Chemex, and the on site lab at Golden Bear. Results are tabulated below.

Lab	Average Assay	Standard Deviation
Bondar Clegg	0.91	.04
Golden Bear	0.86	.03
Min En	0.77	.02
Acme	0.87	.11
Chemex	0.82	.03
Overall	**0.84**	**.07**

Table 10.1-1: 1997 1 Gram Standard Round Robin Results

The blank was not refereed to the same extent as the 1 gram standard. Six cuts were sent to Chemex in Vancouver and 3 cuts were submitted to the on site lab at Golden Bear. All six samples assayed by Chemex returned values of less than detection (0.07 g/t), while those assayed at Golden Bear returned values of 0.10, 0.07 and tr.

10.2 RESULTS

1 gram standards and blanks were inserted into the sample sequence in both the diamond drilling and trenching programs. Each was inserted every 40 samples, ensuring that there was either a standard or a blank in every run going through the lab (24 samples per run). All results were entered into spreadsheets along with the date of the analysis and the name of the asayer. If a suspect result was obtained the sample was rerun by a second assayer. Graphs of all results are shown below (Figures 10.2-1 and 10.2-2).

The majority of results for both the 1 gram standard and the blank fall within analytical error of the mean values determined by round robin. Reassaying of those samples that did not originally fall within analytical error was done by the more senior assayers, and most often produced a result that did fall within analytical error. A wide range of staff was used in

Figure 10.2-1:1997 Standard Analysis

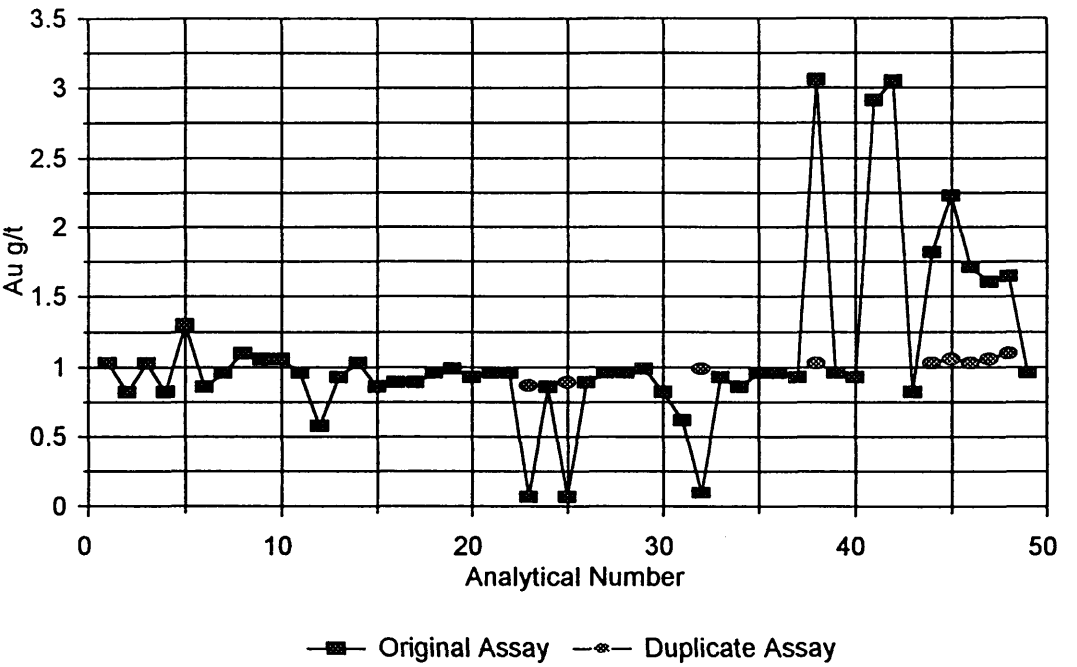
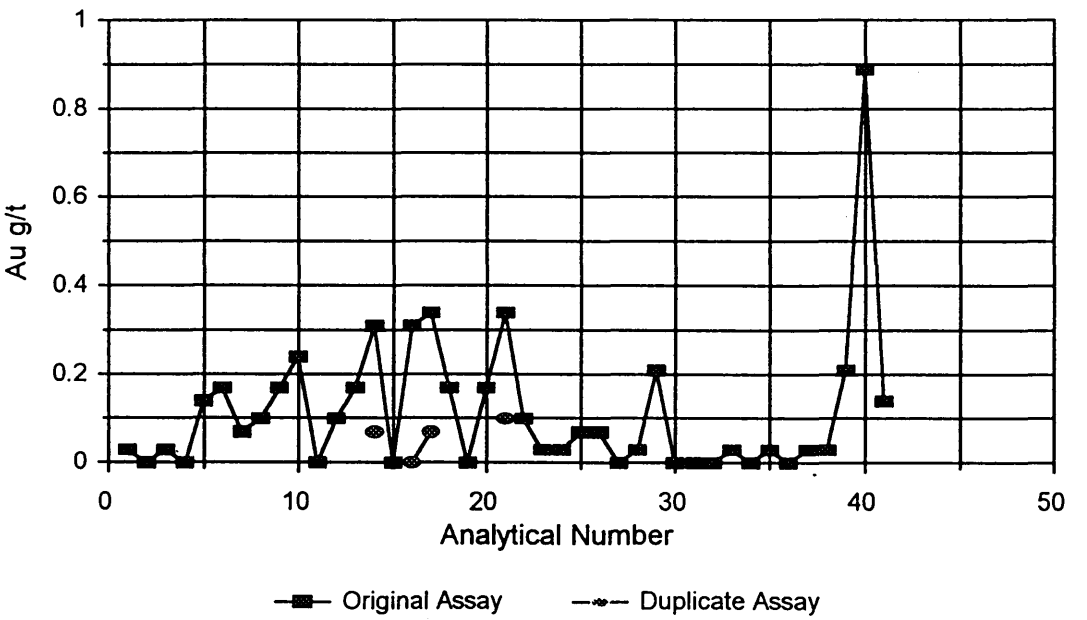


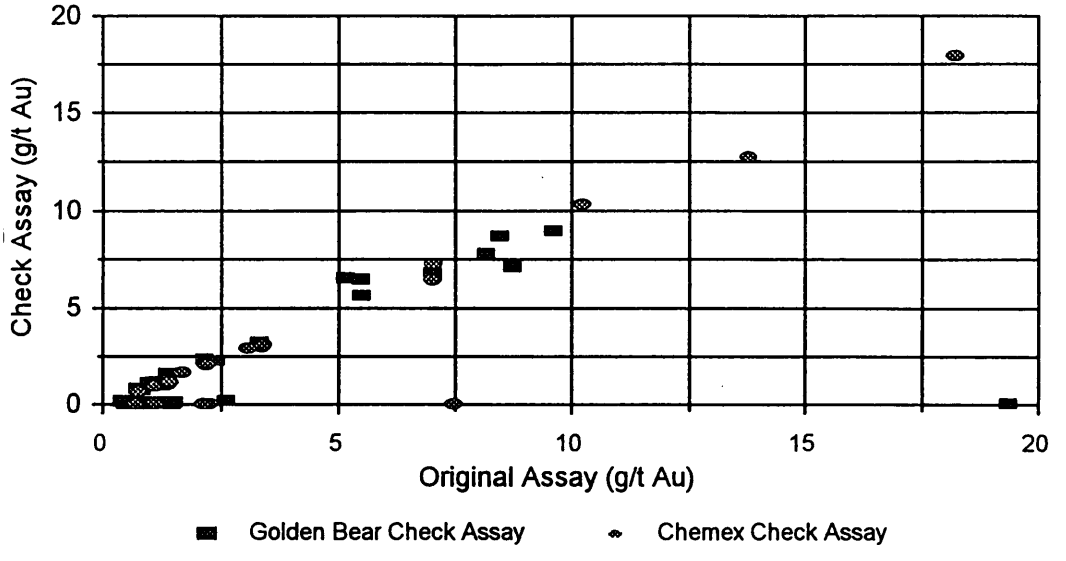
Figure 10.2-2: 1997 Blank Analyses



the assay procedure at Golden Bear in 1997, from experienced senior assayers to new trainees, and the data gathered indicates that a lack of assaying experience accounts for many of the inaccurate results.

A check assay was run on all exploration samples that returned values of greater than 5 grams per tonne and often on samples of greater than 1 gram per tonne from new discoveries on the property. In addition a selection of 22 mineralized samples of varying grade were selected and reassayed at Chemex. This check assay data is presented in Figure 10.2-3.

Figure 10.2-3: 1997 Check Assays



A majority of check assays returned values that closely agree with the original values. However check assays for a number of samples, performed at both the minesite and at Chemex, returned very low values indicating a spurious original assay. Most of the original assays in this case were done by a new trainee, and upon further investigation these and other assay results produced by the trainee were found to be consistently high.

10.3 CONCLUSIONS AND RECOMMENDATIONS

The results of the 1997 quality control program at Golden Bear indicate that in general the onsite assay lab is producing good quality fire assay values. A majority of the assay results that were detected to be erroneous were produced by those assayers with the least experience, and most often occurred randomly, although the gold values determined by a new trainee were found to be systematically elevated.

While the training of new personnel is supported, and it is understood that problems will occur, it is suggested that quality control measures be instituted within the lab on order to minimize the number of erroneous assays that are passed on to other minesite departments. Erroneous results did mislead the exploration department on several occasions during the field season, and resulted in the carrying out of additional prospecting and trenching work that otherwise would not have occurred. Duplicate assays carried out by a senior assayer on a small percentage of the samples being handled by a new trainee would detect systematic error, and the problem can be identified and corrected.

Other aspects of the quality control program should also be addressed:

- Recognition of blanks and standards: With the blanks and standards being inserted into exploration sample runs on a regular basis, lab staff knew which standard was which and what the result was supposed to be. On at least two occasions assay results reported for standards were not what they should have been but what the assayer thought they should be. In the first case a 3 gram standard was submitted instead of a 1 gram standard. A correct 3 gram result was obtained but the assayer felt that contamination had occurred due to the use of a production fusion crucible. A rerun in an exploration crucible yielded a 1 gram value. In the second case the order was changed and two consecutive blanks were submitted instead of a blank and a 1 gram standard. The value reported for the second blank was that of a 1 gram standard. The possibility that this sort of thing happened, but was not detected, on other occasions is very real. To avoid this happening in the future a more random insertion of blanks and standards into the sample sequences should take place. Both 1 and 3 gram standards as well as the blanks should be used. This way the assayer will not know for sure which standard they are getting.

- Production quality control: The production department should initiate its own quality control program. While the exploration department will certainly notify the production department of problems it detects in the lab, exploration samples form only a minor proportion of lab volume, and will form a smaller proportion in 1998 when samples will be submitted from both Kodiak and Ursa pits. As such blanks and standards are included in relatively few lab runs and assay problems that may occur in productions runs will not be detected. Similarly, the exploration quality control program monitors results that are generally much lower than those encountered in mining and recovery operations and problems due to higher grade will not be detected.

11.0 CONCLUSIONS AND RECOMMENDATIONS

This report serves to provide details of the 1997 exploration program carried out on the Golden Bear Mine property. During the field season, which extended from May 1 to September 16, The following was completed:

- 2497.12 metres of diamond drilling in 9 holes on the Grizzly, Ridge and Limestone Creek Zones.
- 10 trenches totalling 1115 metres were mapped and sampled in the C & C, West and Ridge Zone areas.
- 848 soil samples and 601 prospecting rocks samples were collected from several areas on the property including Highway Creek, Ridge Zone, Totem Silica Zone, Helen Bowl and the C & C Zone.
- Two days were spent evaluating regional exploration targets.
- Reclamation work was carried out on the Golden Bear Mine property and the Bandit property.

The results of these efforts and recommendations for future work are summarized as follows:

- Diamond drilling on the Ridge and Limestone Creek Fault Zones did not return significant gold values and no further work is recommended for these areas. It should be noted however, that potential for economic gold mineralization does exist along strike on both faults from the areas that have been evaluated to date.
- Diamond drilling on the Grizzly Zone indicates that the northerly trending, high grade zone extends for at least 200 metres beyond the currently defined resource. This strike extent requires 50 metre sectional drilling to place it into a resource category, and the entire strike extent of the mineralized zone would need infill drilling on 25 metre spacing to upgrade the resource to reserve status. This could best and most accurately be accomplished from underground, which would necessitate dewatering and extending the Grizzly decline.
- Attempts to locate the source of the C & C Zone float by trenching and further prospecting were unsuccessful. The geology and soil profile geochemistry of the 1997 trenches gave no indication of the source, and it is now felt to be most likely that the mineralized boulders originated from somewhere beneath Sam Glacier and were dropped in their present locations during a recent ice advance.
- Trenching of a coincident gold-arsenic anomaly at the western edge of the soil grid encountered gold mineralization associated with a north-south trending fault zone, from which gold values of up to 1.19 grams per tonne over 10 metres and 2.54 grams per tonne over 6 metres have been obtained. Further trenching is required in this zone in order to determine the extent of mineralization and define potential drill targets.
- An extension to the southwest corner of the soil geochemistry grid has located a multistation gold anomaly that remains open to the west. Additional soil

sampling is required to determine the extent of the anomaly, and prospecting and mapping is needed in order to define potential trenching targets.

- Soil sampling and prospecting in the Highway Creek area, to the northeast of Fleece Bowl, has outlined anomalous gold values for roughly 900 metres along a northerly trending fault that places Permian carbonate rocks in fault contact with Stuhini group volcanics. This geologic environment is very similar to that of the Bear Main deposit. Further mapping and prospecting is recommended for the area, as is a trenching program to investigate the fault contact in areas of the strongest soil geochemistry.
- Two regional targets were identified for investigation at a reconnaissance level. The first of these is an occurrence of Permian carbonate rocks 24 kilometres southeast of the minesite, where two short visits in 1997 returned grab samples of up to 3.33 grams per tonne gold. There is good potential at this site for heap leachable mineralization similar to the oxide deposits at Golden Bear, and the site is within view of the Golden Bear access road. The second target is a valley that lies twenty five kilometres west of the minesite. Government geochemical sampling in this area, which is underlain by Stuhini group volcanics, returned a number of weakly to moderately anomalous gold values. NAMC enjoys a unique advantage in that the Golden Bear minesite, located in the middle of a remote corner of the province, provides abase for very cost effective regional exploration. NAMC should take advantage of this position before operations cease at Golden Bear.

12.0 REFERENCES

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