GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT

on the

GOLDEN LOON CLAIM GROUP
I TO IX CLAIMS (Inc.) 9 Claims, 176 Units
Kamloops Mining Division
51°25'N 120°21'W

NTS 92 P/8

for

CORONA CORPORATION
1440-800 West Pender
Vancouver, British Columbia

PROPERTY OWNER: **MINETA RESOURCES LTD.**

OPERATOR: **CORONA CORPORATION**

REPORT AUTHORS: **R.C. Wells, B.Sc., F.G.A.C.**
J.R. Bellamy, B.Sc., F.G.A.C.

December 24, 1990

SUMMARY

The Golden Loon Property of Mineta Resources Ltd. is located at the edge of the Thompson Plateau, 6 kilometres west of Little Fort, British Columbia. The property is comprised of 18 contiguous mining claims totalling 185 units.

Corona Corporation has an option on the property from Mineta dated April 9, 1990. The exploration target is porphyry hosted and structurally controlled precious metal mineralization located on the northeastern edge of the Thuya Batholith (Dum Lake area).

The 1990 exploration program on the property by Corona consisted of the following surveys:

1. 5.4 km of access road construction
2. 21.15 km of survey control grid known as the Dum Lake grid
3. Reconnaissance geological mapping covering the entire property
4. Detailed geological mapping within the Dum Lake grid
5. Two phased trenching programs on the Dum Lake grid (29 trenches)
6. Soil geochemical surveys on the Dum Lake grid
7. Prospecting and rock geochemistry
8. A test, induced polarization and resistivity survey was conducted on selected lines on the Dum Lake grid
9. A diamond drilling program consisting of 7 holes for a total of 691.0 metres. This program is the subject of a separate report by G.Evans BSc.

The property lies in a zone of complex faulting at the northern edge of the Thuya Batholith (Jurassic). On the property, the faulting affects various alkalic marginal

phases to the Thuya Batholith (Dum Lake area), the Nicola Group volcanics and sediments as well as a large ultramafic unit of unknown age and association.

The geochemical programs outlined a number of strong gold anomalies on the Dum Lake grid. In the east part of the grid, the gold anomalies were coincident with lead and local copper values. Prospecting and geological mapping in the eastern part of the grid discovered mineralized (Au, Ag, Cu, Pb) quartz veins and vein float. The veins fill northerly trending faults in monzonitic to dioritic intrusive rocks. In the western grid area, gold and copper mineralized float and bedrock were discovered near Dum Creek. This mineralization is associated with structurally controlled, propylitic and silicified alteration systems hosted by monzonitic intrusive rocks.

The better soil, float and bedrock gold anomalies, near Dum Lake, were tested by trenching wherever possible. Gold mineralized quartz vein systems with silver, lead and copper values were uncovered in the eastern part of the grid. A well mineralized quartz vein on Line 1700E yielded average gold values in the 6 to 7 g/t range over a 1 to 1.5 metre width. In the western part of the grid, the Dum Creek alteration zone could not be trenched because of difficult topography. Another strong alteration zone was exposed in Trench 19. The zone, which is heavily silicified, contains disseminated pyrite, specular hematite and gold values in the 1 to 3 g/t range. A test I.P. survey conducted in this area indicated a small, weak chargeability anomaly.

Further trenching and sampling of the silicified zone indicated the area had the best gold potential within the Dum Lake grid. The zone was tested by six diamond drill holes late in 1990. An I.P. target in the western part of the grid was tested by one drill hole.

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1.0 INTRODUCTION

This report presents the results of a 1990 exploration program, conducted by Corona Corporation on the Golden Loon Property. The property is located in the Kamloops Mining Division. The exploration target is porphyry hosted and structurally controlled (quartz stockwork and vein) precious metal mineralization.

The report describes the geological, geochemical, geophysical and trenching programs undertaken on the Golden Loon mineral claims. The results from a drill program, completed in November 1990, are detailed in a separate diamond drilling report by G. Evans B.Sc. All the 1990 exploration on the property was under the direction of R. C. Wells B.Sc. FGAC, Regional Geologist for Corona Corporation based in Kamloops B.C.

The cost of the program outlined in this report was $157,792.00 and excludes the expenditures incurred in the 1990 drilling program.

1.1 Location and Access

The Golden Loon claim group is covered by NTS sheet 92P/8 and is centered six kilometres west of Little Fort, B.C. Little Fort is a small settlement on Highway 5, a hundred kilometres north of Kamloops. A network of well travelled forestry and logging roads affords good access to most parts of the property from both Little Fort to the east and Thuya Lakes Resort to the west (Figure 1).

1.2 Property

The property described in this report consists of nine contiguous mineral claims (modified grid), plus nine 2 post claims totalling 185 units located in the Kamloops Mining Division (Figure 2). The claims are:

Claim Name	Units	Record Number	Expiry Date
Golden Loon I	20	5541	9 March 1991
Golden Loon II	20	5542	9 March 1991
Golden Loon III	20	5543	9 March 1991
Golden Loon IV	20	5544	9 March 1991
Golden Loon V	20	6539	7 March 1992
Golden Loon VI	20	6540	7 March 1991
Golden Loon VII	16	6549	14 March 1991
Golden Loon VIII	20	6550	14 March 1991
Golden Loon IX	20	6556	27 March 1991
Dum 1	1	9284	9 May 1991
Dum 2	1	9285	9 May 1991
Dum 3	1	9286	9 May 1991
Dum 4	1	9287	9 May 1991
Dum 5	1	9621	26 July 1991
Dum 6	1	9622	25 July 1991
Dum 7	1	9623	25 July 1991
Dum 8	1	9624	25 July 1991
Dum 9	1	9625	25 July 1991

The property is owned by Mineta Resources Ltd., 415-470 Granville Street, Vancouver, British Columbia. An option agreement was made on April 9, 1990 between Mineta Resources Ltd. and Corona Corporation. Corona, by paying Mineta an aggregate of $220,000 and incurring a minimum of $1,200,000 in exploration expenditures by July 31,1995 could earn a 75% undivided interest in the claims.

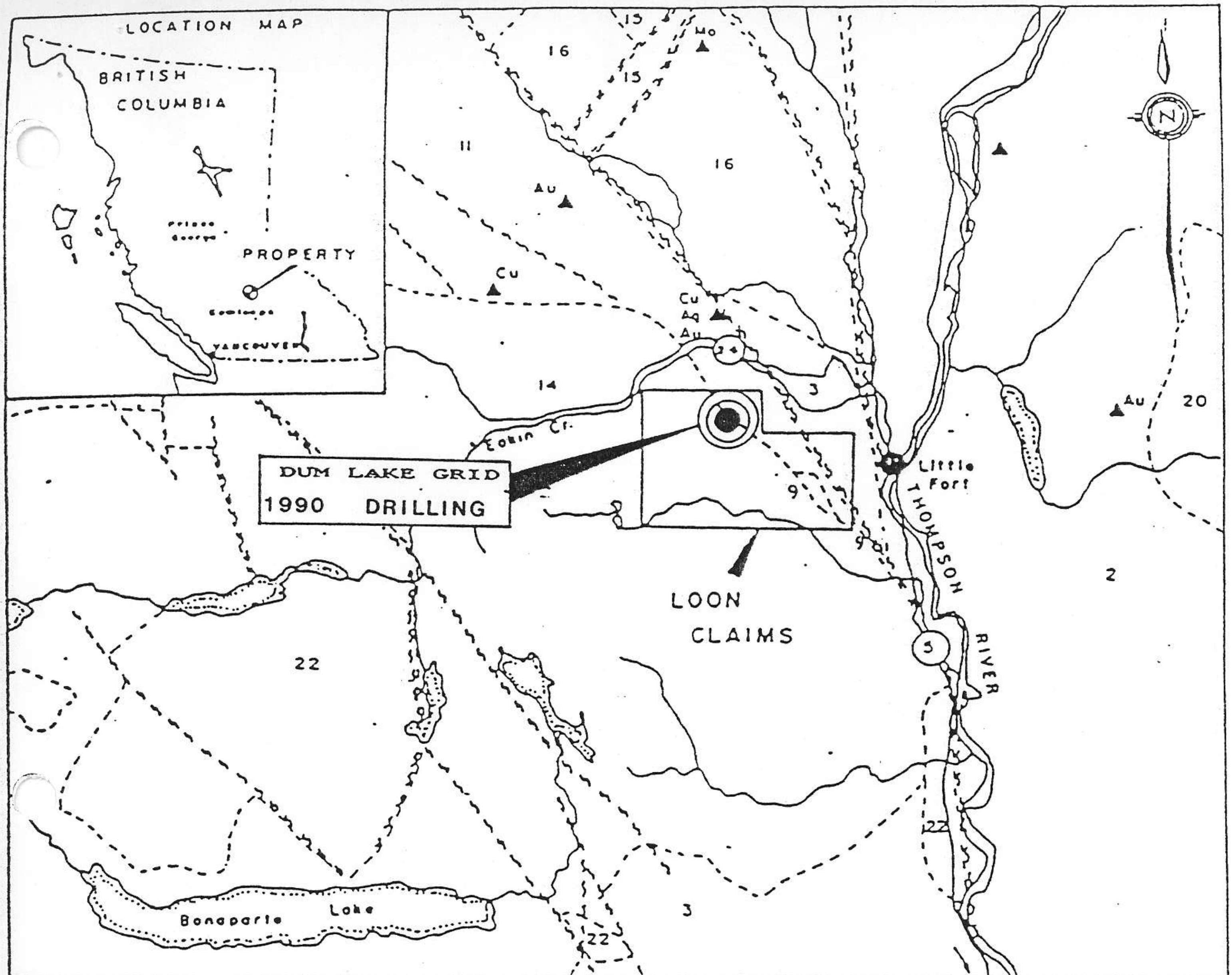
Mineta Resources Ltd. owns an adjoining claim block, the LUC 1 - 14 minerals claims - Kamloops Mining Division, in which Corona Corporation has a first right of refusal to option from Mineta. In consideration of Mineta giving Corona the first right of refusal, Corona will apply one year of assessment credits to each of the LUC 1 - LUC 14 mineral claims. The claims are:

Claim Name	Units	Record Number	Expiry Date
Luc 1	1	8053	9 September 1991
Luc 2	1	8054	9 September 1991
Luc 3	1	8055	9 September 1991
Luc 4	1	8056	10 September 1991
Luc 5	1	8057	10 September 1991
Luc 6	1	8058	10 September 1991
Luc 7	1	8059	10 September 1991
Luc 8	1	8060	10 September 1991
Luc 9	1	8061	10 September 1991
Luc 10	1	8062	10 September 1991
Luc 11	1	8063	10 September 1991
Luc 12	1	8064	10 September 1991
Luc 13	1	8065	10 September 1991
Luc 14	1	8066	10 September 1991

1.3 Physiography and Vegetation

The property, which lies to the south of Eakin Creek gorge occupies an undulating plateau region between 1100 and 1400 metres elevation. The eastern part of the property covers the edge of the plateau and the western valley slopes of the North Thompson River (440 metres elevation).

Vegetation on the property is generally thick with stands of mature pine and/or poplar. Large parts of the western area have thick alder growth on gravel ridges which are separated by low swamps. The higher ground within the claims was partially logged ten to fifteen years ago and there has been some recent logging activity (1989-1990), south of Montigny Creek.



LEGEND

22	SKULL HILL FORMATION (TERTIARY) Felsic to intermediate volcanics.
20	RAFT AND BALDY BATHOLITHS (Cretaceous) Granitic intrusives.
16	INTERMEDIATE VOLCANICS WITH SEDIMENTS (JURASSIC)
14	THUYA BATHOLITH (TRIASSIC/JURASSIC) Granodioritic intrusive.
11	NICOLA GROUP (TRIASSIC) Intermediate volcanics with sediments.
9	ULTRAMAFIC INTRUSIVES (EARLY MESOZOIC)
3	EAGLE BAY (LATE PALEOZOIC) Mixed volcanics and sediments.
2	FENNEL FORMATION (MISSISSIPPIAN) Mixed basic volcanics and sediments.

▲ Mineral occurences

〜 Major faults

MINETA RESOURCES LTD.	
REGIONAL GEOLOGY MAP GOLDEN LOON PROPERTY LITTLE FORT AREA KAMLOOPS M.D., B.C.	
DRAWN BY K.G.	N.T.S. 92-P-8
Feb. 1987	FIG. 1.

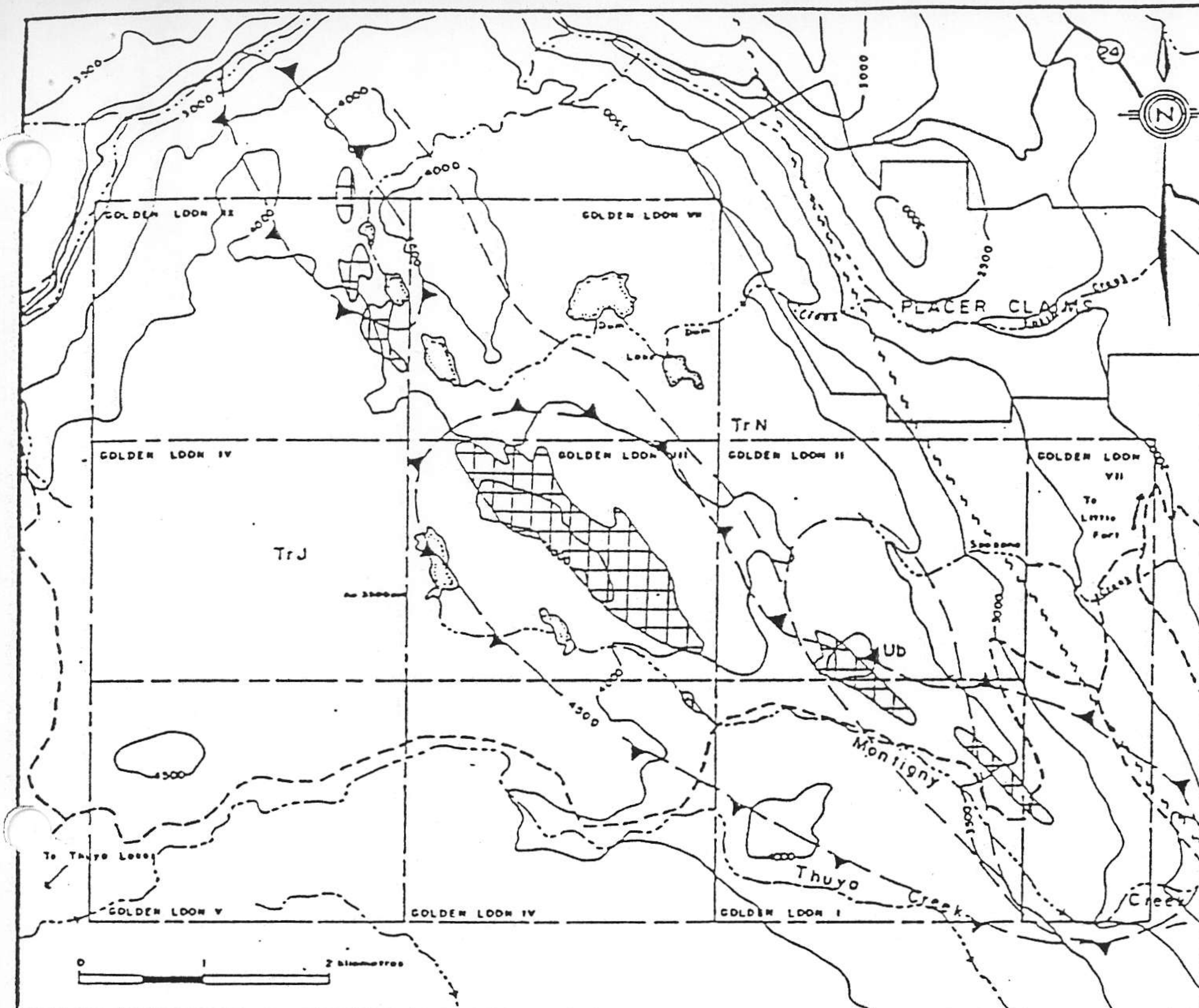
1.4 History and Previous Work

During the early 1920's, interest was generated in the placer gold deposits of Eakin Creek. Gold was discovered in Lemieux and Eakin Creeks, as well as in some western tributaries. In 1923, placer claims were held on 1.5 miles of Eakin Creek (just north of the property), upstream from its junction with Lemieux Creek. (Figure 5). Coarse gold was found in the higher bench gravels but not in significant commercial quantities. The source of the placer gold in Eakin Creek has never been located.

Noranda Exploration (Kira group) explored the property area in the 1960's with copper as the main target. Following stream and lake silt sampling, the area was covered by a large soil grid with 800 foot spaced lines and 200 foot sampling intervals. Samples were run for Cu, Ni, and a few for Mo. A series of strong nickel anomalies in the 100 to 2000 ppm range trend northwest and lie to the south of Dum Lake (Figure 2). No detailed follow up on any of the anomalies is recorded.

The western part of the property was covered by the Minerva claims held by Teck Corporation in 1980 and 1981 with copper again as the target (Figure 3). A 60 kilometre flagged grid was used for soil geochemistry (Cu, Ag, Mo), reconnaissance geological mapping and ground magnetic surveys. A series of strong positive, magnetic anomalies trending northwest were found to cover Noranda's nickel in soil anomalies. Teck's mapping indicated this was a large ultramafic body of pyroxenite to peridotite composition. A number of coincident Cu and Ag soil anomalies were outlined, many of which are located close to the edge of the magnetic anomalies (ultramafic intrusive) as shown in Figure 3. Teck's report by P.G. Folk (No. 9061, 1981) recommended running soils for gold and further work on coincident Ag-Cu soil anomalies south of Dum Lake. Neither was done.

An airborne magnetic survey (DEMR 1968 Airborne Magnetic Survey Series 52249) shows a strong, positive, magnetic anomaly of greater than 3000 gammas relief



LEGEND

Airborne magnetic anomaly. 4500 gamma isomagnetic contour.
(Chu Chua sheet GSC series 5224 G)

Nickel in soils anomalies (Ni >100 p.p.m.)
From NORANDA (1967) Report # 1055

TrJ — Thuya Batholith (Triassic, Jurassic). Granodiorite.

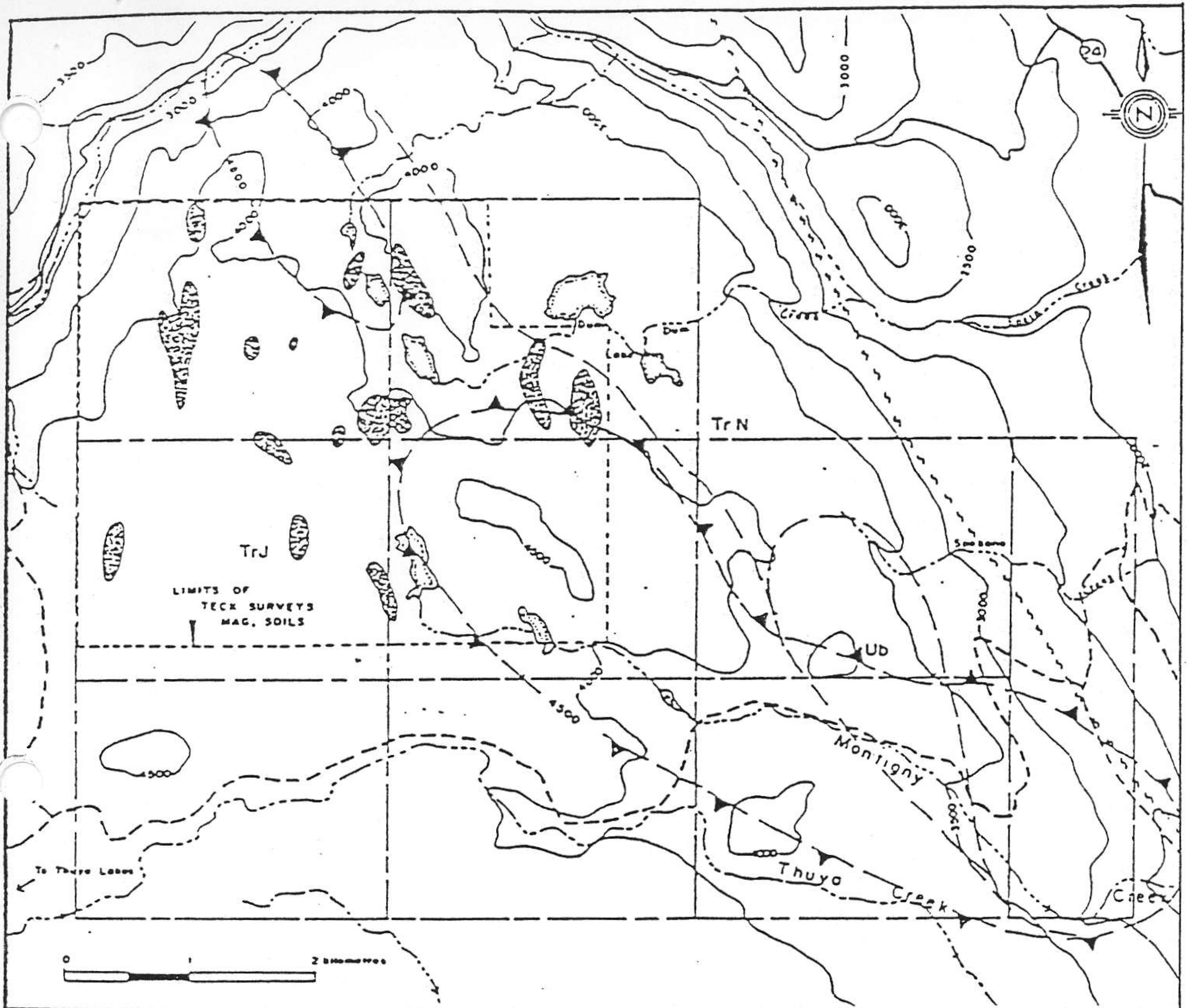
TrN — Predominantly Nicola Group (Triassic) Volcanics and Sediments.

Ub — Ultramafic Intrusive (Permian/Triassic) Serpentine.

LOON VII Fault.

Geology after Campbell and Tipper (1971)
Unchanged

MINETA RESOURCES LTD	
GOLDEN LOON PROPERTY	
DATA COMPILATION I	
LITTLE FORT AREA, KAMLOOPS M.D.	
Drawn by K.G.	N.T.S. 92-P-8
Feb. 1987	Fig. 2



LEGEND

Airborne magnetic anomaly. 4500 gamma isomagnetic contour.
(Chu Chua sheet GSC series 5224 G)

Coincident Cu (> 100 ppm) Ag (> 1.5 ppm) in soil anomalies.
From TECK CORPORATION (1981) REPORT # 9061

TrJ — Thuya Batholith (Triassic, Jurassic). Granodiorite.

TrN — Predominantly Nicola Group (Triassic) Volcanics and Sediments.

Ub — Ultramafic Intrusive (Permian/Triassic) Serpentine.

LOON VII Fault.

Geology after Campbell and Tipper (1971)
Unchanged

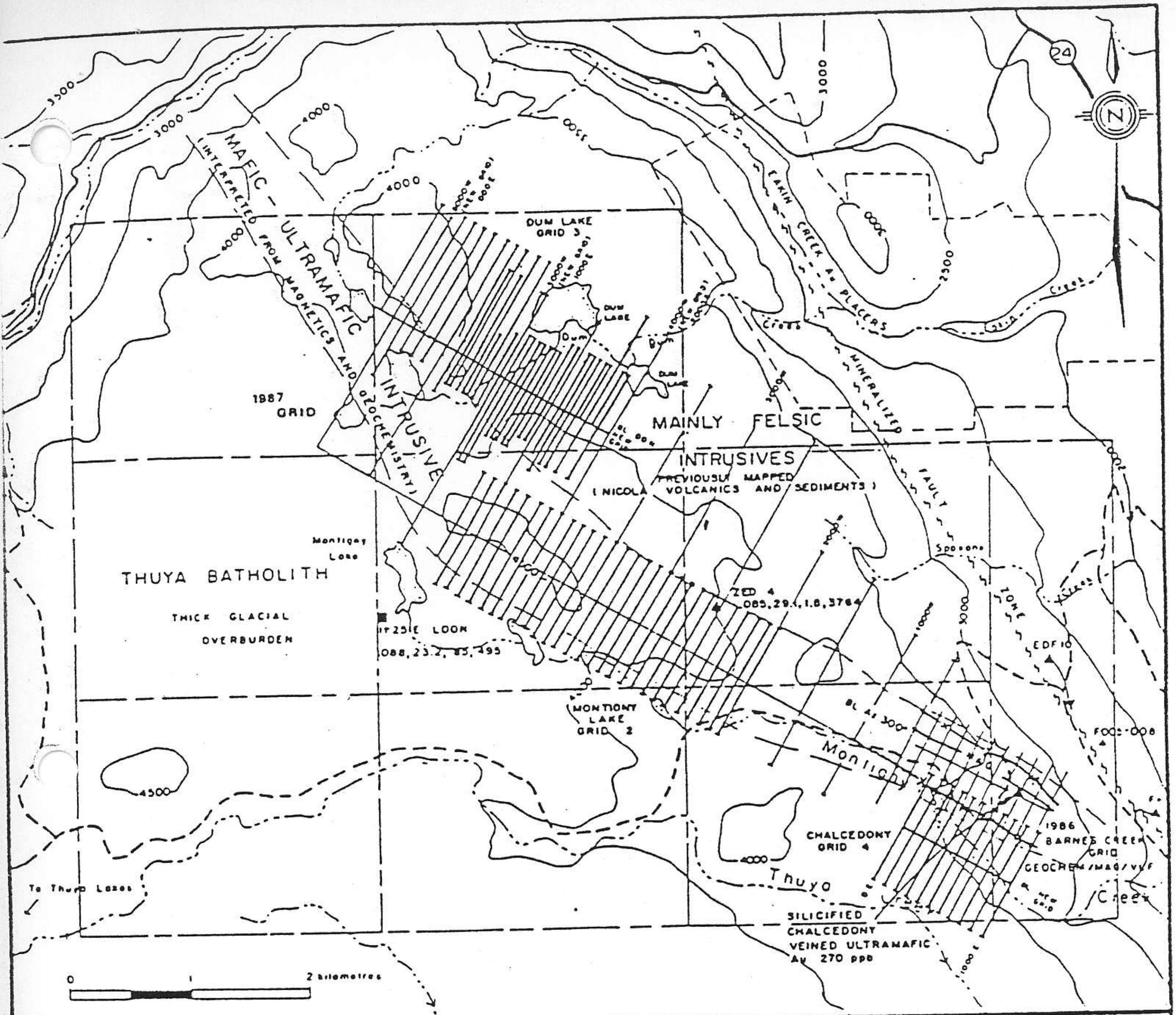
MINETA RESOURCES LTD	
GOLDEN LOON PROPERTY	
DATA COMPILATION 2	
LITTLE FORT AREA, KAMLOOPS M.D.	
Drawn by K.G.	N.T.S. 92-P-8
Feb. 1987	Fig. 3

trending northwest across the northern part of the property (Figure 5). This feature coincides with Teck's ground magnetic anomalies (ultramafic unit). It is probable that the ultramafic body is located within the 4500 gamma contour shown in Figures 2, 3, and 5.

The Golden Loon VII claim covers the western half of the previous Fir Group (1980's, De Bock brothers). This two claim group (30 units) covered part of a major north-westerly trending fault (Figures 2, 3, and 4). Old trenches near the western edge of the claim expose strongly silicified, ultramafic rocks with much chalcedony, quartz and disseminated magnetite, pyrite and minor galena.

The Golden Loon Property was staked by L. Lutjen between 1984 and 1986 with gold and platinum as the targets. During 1984 and 1985, work by Barnes Creek Minerals on the property consisted of prospecting and sampling in favourable areas defined by previous surveys (Noranda, Teck). In 1986, a 7.0 kilometre grid on was cut on the Golden Loon VII claim to cover old trenches exposing silicified ultramafics. The grid is shown in Figure 4 and covers one of the nickel in soil anomalies outlined by Noranda. Soil geochemical (Au, Ag, and As), magnetic and VLF surveys were conducted over the grid. Anomalous gold values (up to 110 ppb) cluster in the northwestern part of the grid. Magnetics suggest that the grid is underlain by ultramafics. Variations within the more magnetic areas may be explained by alteration of the ultramafics (silicification). The VLF survey indicated two northwesterly trending fractures cutting the ultramafics (Figure 4). The more easterly of these may also coincide with the eastern margin of the ultramafics (fault contact?). Most of the higher gold in soil values (750 ppb) occur close to the VLF features which suggests that structures parallel to the Loon VII fault may be mineralized.

Mineta Resources optioned the Golden Loon property from Larry Lutjen in 1987. There were two main targets that were addressed by Mineta's 1987 exploration program: 1) platinum group elements and chromite within the main ultramafic unit; and 2) precious metals, gold and silver in structures/veins at the margins of the ultramafic. A large grid, with 500 metre spaced lines, was cut to cover the ultramfic unit and an area to the north. Geochemical surveys were conducted over the grid and in all drainages on the property. These surveys outlined a number of gold and silver



LEGEND

GEOCHEMISTRY

■ ▲ 08, 23, 85, 498 — Sample location Au oz/T, Ag, Cu, Pb (ppm)

■ ▲ F006 — Sample location (See Table 1 for values)

GEOPHYSICS BARNES CREEK 1986 GRID

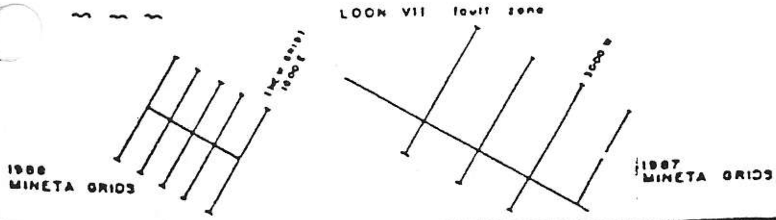
—x—x—x— VLF Anomaly (Fraser Filtered) 1986

—MAG— Magnetic Anomaly Axis 1986

GEOLOGY

– – – – Interpreted geological contact

~ ~ ~ LOON VII fault zone



MINETA RESOURCES LTD.	
GOLDEN LOON PROPERTY	
DATA COMPILATION 3	
LITTLE FORT AREA, KAMLOOPS M.D.	
Drawn by K.G.	N.T.S. 92-P-8
October 1988	Fig. 4

anomalies south of Dum Lake which occur along an interpreted structural break (east trending, fault-zone). Weakly anomalous platinum values were obtained from lithogeochemical samples taken from pyroxenitic bands in the ultramafic unit.

Phase I, of Mineta's 1988 exploration program (Figure 4) on the property consisted of detailed follow-up line cutting and geochemical and geophysical surveying on the 1987 geochemical anomalies located south of Dum Lake. A wide belt of gold in soil anomalies some 1200 metres long by 800 metres wide containing local `spot highs' greater than 1000 ppb was outlined by the surveys. The anomalous area correlates well with a magnetic `low' north of the main ultramafic unit. A sample taken from a quartz boulder very near a high gold in soil value (>1000 ppb) and on a short VLF anomaly yielded a gold value of 1.1 oz/t with highly anomalous lead and silver.

Phase II, 1989 exploration by Mineta (Figure 4) concentrated on two main areas; Montigny Lake (central, Grid 2) and Montigny Creek (Grid 4) to the southeast. Both areas had been previously explored by Mineta in 1987 and were subject to further detailed grid and soil geochemical surveys in 1988. Magnetic and VLF surveys were conducted only on Grid 2 by White Geophysical Services of Vancouver.

On the Montigny Lake Grid(2), a number of weak to moderately strong Cu, Ni and Cr geochemical anomalies trend northwest and appear to be stratigraphically controlled by certain ultramafic units. A similar control is suggested for VLF and magnetic anomalies with the same trend (higher magnetite concentrations).

On the Montigny Creek Grid (4) a number of strong copper (locally with coincident gold) geochemical anomalies were identified. These anomalies overlie uncertain geology. The source for the gold in Montigny Creek is unknown.

The results from the 1988-89 geochemical and geophysical surveys by Mineta are compiled in Figure 5.

In 1989, a number of small programs were conducted on the property. Mineta extended the Dum Lake Grid (No.3) to the east (Grid 5) 1.5 km and completed a soil sampling program on the irregular spaced lines. The gold anomalies on Grid 3 do not extend very far eastward onto Grid 5. A ground magnetic and VLF survey (by White Geophysics) outlined a number of weak anomalies.

Placer Dome Inc conducted a geological survey and checked soil lines on Grid 3. Mineta's (1988) soil values were basically reproduced. Grab samples taken from mineralized quartz float yielded a number of gold values in the 3 to 6 g/t range, and one of 49 g/t (Line 1700E at 3+25S).

White Geophysics conducted another magnetic and VLF survey for Mineta on Montigny Creek Grid 4. No strong anomalies were detected.

1.5 Regional Geology and Mineralization

The regional geology of the Little Fort area, which is largely based on GSC Map 1287A accompanying the Bonaparte Lake Memoir 363 by Campbell and Tipper (1971), is illustrated in simplified form in Figure 1 .

The North Thompson Valley lies along a major (regional) northerly trending fault system marking the boundary between the Omineca Belt (to the east) and Intermontane Belt (to the west). South of Little Fort, the fault zone separates deformed Fennel (Mississippian) and Eagle Bay Formation (Palaeozoic) volcanics and sediments to the east from less deformed Nicola group Volcanics (Triassic) and Mesozoic intrusive rocks (Thuya Batholith) to the west. At Little Fort the fault zone splays to the northwest into a wide zone of complex faulting (fault duplex!) north of the Thuya Batholith.

The Golden Loon Property covers the northeastern margin of the Thuya Batholith and its contact with strongly faulted Nicola Group volcanics. A northwesterly trending zone of ultramafic rocks occurs along a fault zone (deep seated?) near the contact.

A number of gold and base metal occurrences are known in the area. The majority of these are located in the zones of complex faulting northwest of Little Fort. Many of the occurrences can be related to relatively small alkalic and calc-alkalic intrusives. Five kilometres north of the Golden Loon Property (on the Cedar Claim Group), copper mineralization with gold and silver values is associated with a narrow skarn zone developed at the margins of a dioritic dyke.

The northern part of the Golden Loon Property could be a source area for the gold placers in Eakin Creek which is located 1.5 kilometres northeast of Dum Lake.

2.0 THE 1990 EXPLORATION PROGRAM ON THE PROPERTY

2.1 Introduction

The 1990 exploration program on the Golden Loon Property was conducted and financed by Corona Corporation. This work was completed between May 15 and the end of the year.

Previous exploration programs on the property indicated a good potential for porphyry hosted and structurally controlled (quartz-stockwork and vein) precious metal mineralization in the Dum Lake area. The 1990 exploration program was designed to improve and test existing targets as well as develop new ones.

The integrated exploration program consisted of road construction, grid preparation, geological, geochemical and geophysical surveying and follow up trenching. The various programs are discussed in the following sections. The 1990 drill program, completed during October is detailed in a separate report by G. Evans, B.Sc.

2.2 Physical Work

2.2.1 Road Construction

Before 1990, it was difficult to access the area south of Dum Lake. A rough 10 kilometres long 4 X 4 trail accessed the north side of Dum Lakes via the Thuya logging road. From Dum Lake southward travel, by foot only, involved crossing wide swampy areas.

In May 1990, a 4 kilometres long 4 X 4 road was constructed from the Thuya logging road into the Mineta grid located south of Dum Lakes (Figure 6). A Hitachi 200 excavator from Cam Mac was used for this work. The first 1.3 kilometres of road upgraded an old north trending logging trail.

In September, the road was extended a further 1.4 kilometres to the west to access targets requiring trenching and/or drilling. A bridge was built to cross Dum Creek (Figure 6).

2.2.2 Survey Control Grid

As part of the 1990 exploration program a new cut grid was established over the area south of Dum Lakes. This new grid covers the same area as Mineta's 1988 Grid 3 (Dum Lake).

All the lines were cut out by chain saw, drag chained and picketed to I.P. standard. Turning boards were used for survey lines cut perpendicular to the baseline. Many of the new cut survey lines, including the baseline, do not follow those of Mineta's even though both grids have the same orientation. The reason for this is that the variable strong magnetics in the area make compass lines inaccurate (Mineta 1988) and turning boards have to be used with line of sight picketing.

All line cutting was by Peripheral Exploration Ltd of Kamloops and was completed in two phases (Figure 6). Phase 1 in June consisted of a 1.3 kilometre baseline and 12.5 kilometres of survey lines (Lines 600E to 1800E). Phase 2 in September extended the grid to the west with a further 1.35 kilometres of baseline and 6 kilometres of survey line (Lines 0 to 500E). The final grid covered the same area as Mineta's 1988 Grid No. 3. The new grid was used for all 1990 geological, geochemical and geophysical surveys.

3.0 PROPERTY GEOLOGY

3.1 Introduction

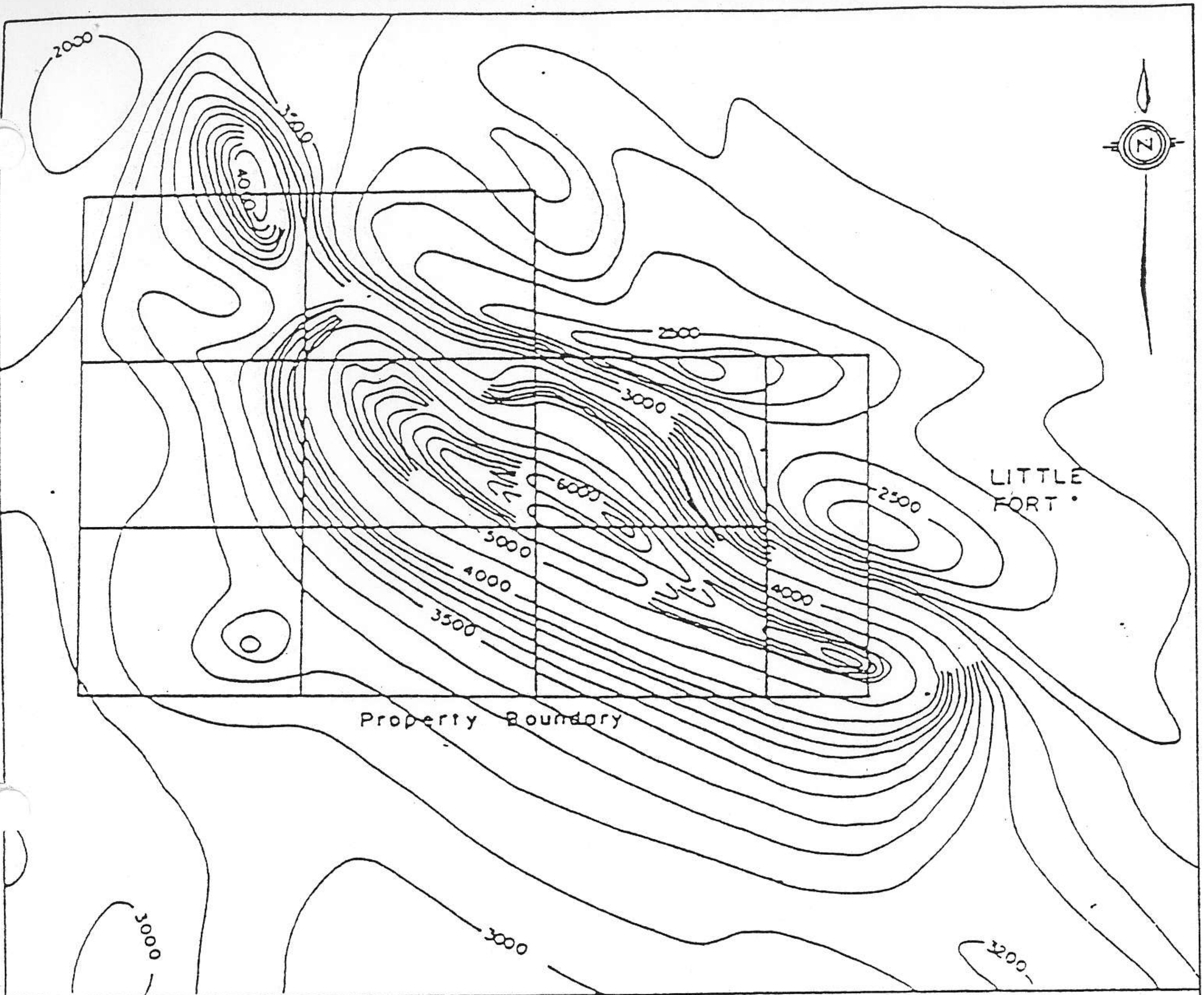
In 1990, two geological surveys were conducted by Corona Corporation on the Golden Loon Property. Reconnaissance geological mapping at 1:10,000 scale was conducted by R.C. Wells over large parts of the property between May and October. This mapping utilized the extensive road and trail system in the area as well as the old Mineta grids. During the same period detailed geological mapping at 1:2500 scale was conducted by I. Mitchell BSc. over the Dum Lake grid.

3.2 Distribution

The geological reconnaissance mapping is shown in Figure 6. The detailed geological mapping within the Dum Lake grid is illustrated in Figure 7.

Regional geological mapping by the GSC (Campbell and Tipper 1971, Map 1278A) is summarized in Figure 1. As shown in Figure 6, much of the southern and western parts of the property is underlain by Thuya Batholith granitic rocks. Outcrops are sparse as much of this area is covered by thick glacial sands and gravels.

A northwesterly trending ultramafic unit up to 1.5 kilometres wide forms a prominent ridge across the mineral claims. It is a continuous body (Figure 6) and not a series of lenses as shown on the GSC map (Figure 1). The ultramafic unit stands out on regional airborne magnetic maps as a positive feature 2000 to 3000 gammas above background (Figure 8, GSC series 5244G). Geological traverses over the ultramafic indicate it is compositionally layered with thick bands of dunite, peridotite, pyroxenite and gabbro.



LEGEND

Magnetic contours in gammas.
From Chu Chua Sheet. GSC Series 5224 G

3000

0 1 2 3 Km

MINETA RESOURCES LTD	
REGIONAL MAGNETIC MAP GOLDEN LOON PROPERTY LITTLE FORT AREA KAMLOOPS M.D., B.C.	
DRAWN BY K.G.	N.T.S. 92-P-8
Feb. 1987	FIG. 8

In the Dum Lake area north of the ultramafic unit, Nicola Group volcanics and sediments are intruded by a mixed group of rocks ranging in composition from syenogabbro to quartz monzonites. These may represent contaminated, satellite intrusive bodies to the Thuya Batholith and were not recognized by the GSC mapping (Figure 1).

The area north of the Thuya Batholith lies in a complex fault zone (splays) which displace all the major rock units. Brief descriptions of the observed geological units can be found in the following section on lithology.

3.3 Lithology

3.3.1 Thuya Batholith and Related Intrusions (Triassic or Jurassic) - Map Units 5, 6, 7)

Unit 7 - Quartz Monzonite, Minor Granodiorite

The Thuya Batholith south of the main ultramfic unit (1) consists of fairly monotonous medium to coarse grained, quartz monzonites and granodiorites. These are equigranular leucocratic rocks with quartz, plagioclase >k-spar, and between 5 and 10% mafic minerals (hornblende, biotite, chlorite). Porphyritic varieties have large K-spar phenocrysts. Mafic granodiorites are less common and occur as sparse outcrops in the southwestern part of the property.

On the eastern margin of the batholith, close to the North Thompson Fault, Unit 7 granodiorite is locally foliated and gneissic. On the Golden Loon VII claim, a northwesterly trending dyke-like body or fault block of equigranular quartz monzonite (+200 metres wide) outcrops east of a major splay fault (Figure 6).

North of the ultramafic unit (1), mineralogically and chemically similar rocks outcrop on the western part of the Dum Lake grid and are grouped in Unit 7 (Figure 9). These quartz monzonites are more altered (propylitic, locally silicified) and contain more k-spar (k-spar and plagioclase roughly equal amounts) and less than 10% mafic minerals. To the east these rocks grade into monzonites, quartz diorites and diorites (Units 5 and 6). Units 5 and 6 have so far only been recognized in the Dum Lake area (Figure 7) on the property.

Unit 6 - Monzonite, Quartz Monzonite

This unit underlies much of the Dum Lake grid area (Figure 7) and has gradational contacts with Unit 7.In the field this unit can be distinguished from 7 by the lack of quartz, high total feldspar, higher k-spar content and is generally finer grained (medium to medium-coarse grained) with equigranular textures. The mafic minerals (biotite, rare coarse hornblende) are commonly chloritized.

Chemically, Unit 6 is more alkali rich than Unit 7 (quartz monzonites, granodiorites) (Figure 9).

Unit 5 - Diorite, Monzonite

Small zones of more mafic rich diorites and monzonites occur within Unit 6 on the Dum Lake grid. Extensive areas of diorite occur north of Dum Lake. In the field these diorites are distinguished from Unit 6 by their high mafic mineral content (greater than 10%, commonly 20%). Chloritization is common with rare remnant biotite and hornblende. Chemically, Unit 5 rocks are quartz diorites to quartz syenodiorites and monzonites (Figure 9).

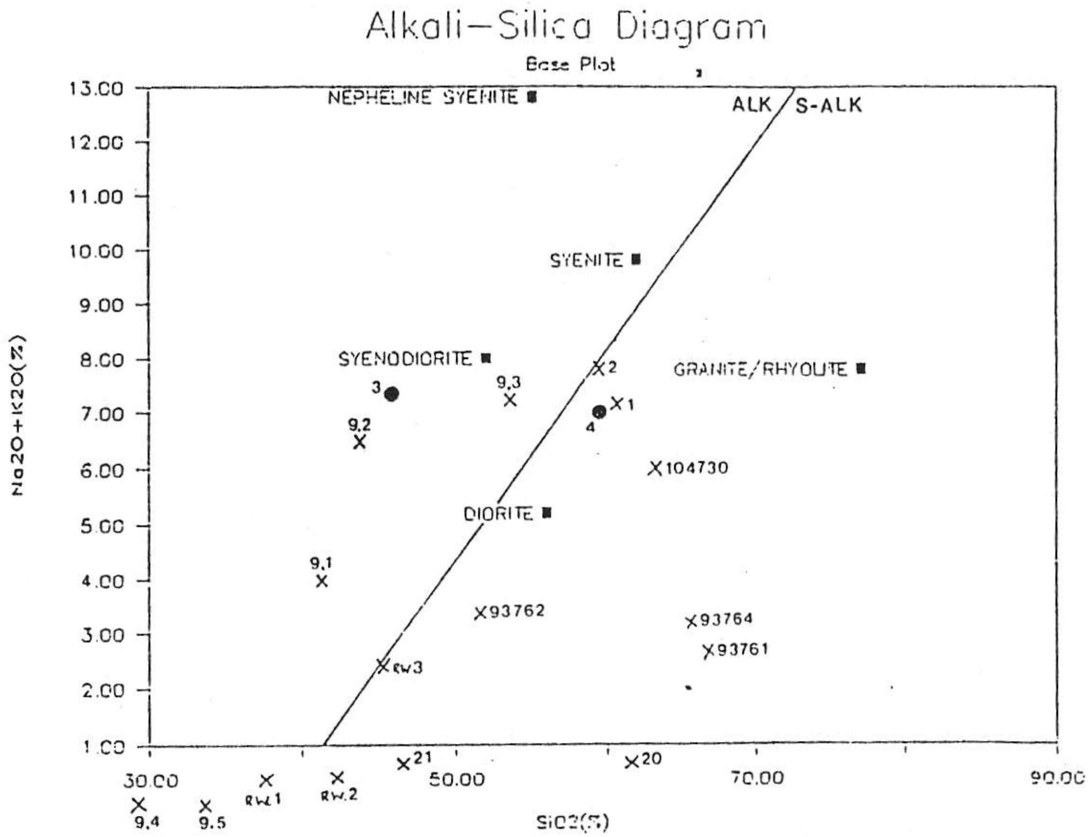
Unit 4 - Gabbro, Syenogabbro

Outcrops of magnetic gabbro and syenogabbro are restricted to a small area at the south end of Line 900E. A gabbro dyke cutting Unit 1 ultramafic rocks was intersected in DDH GL-90-03. The dyke is clearly younger than Unit 1 and could be an ultramafic contaminated variety of Unit 5 or 6.

The gabbroic rocks are dark coloured, medium to coarse grained equigranular and locally foliated. Plagioclase and k feldspar content varies from 5 to 30%. Hornblende and chlorite are the predominant mafic minerals.

Chemically, these rocks contain high total alkalis and range from syenodiorites to syenogabbros with (Figure 9). The more mafic, alkali poor varieties occur closer to the ultramafics and are another indication of contamination.

FIGURE 9. TOTAL ALKALIS-SILICA DIAGRAM FOR GOLDEN LOON ROCK TYPES



● Altered samples

× Fresh samples

■ Average rock type (Daly)

Irvine and Baragar (1971)
Fields for alkaline, sub-alkaline

3.3.2 Nicola Group (Triassic) - (Map Units 2,3)

Nicola Group volcanics and sediments outcrop in the northeastern and eastern parts of the property and appear to be two distinct rock packages. The sediments appear to underlie the volcanics. This relationship is not clear cut as complex faulting is common.

Unit 3 - Volcanics (predominantly flows, minor volcaniclastics)

These are dark green, fine grained volcanic flows with minor interflow fragmental units. Locally, these units are schistose and chloritic, especially in the vicinity of stronger fault zones. Close to the intrusive rocks the effects of thermal metamorphism are clear with significant epidote, metamorphic segregation of layers and recrystallization and partial melting (irregular diorite pods and sweats). Chemically, the volcanics appear to be tholeiitic.

Unit 2 - Sedimentary Rocks

These rocks are poorly exposed on the property and predominantly consist of dark coloured siltstones, shales, mudstones and dirty limestones (calcareous mudstones). as well as their more metamorphosed equivalents; slates and phyllites. Sericitic phyllites are fine grained, light coloured rocks composed of quartz, sericite and chlorite. They outcrop along the power line east of the property boundary.

The shales and slates are shattered and quartz veined (irregular), when close to major structures such as splay faults.

Unit 1 - Ultramafic Rocks (Age Unknown)

A distinct group of fine to coarse grained, brown weathering, ultramafic rocks form the main northwesterly trending ridge on the property. These rocks have been variably (pervasively) serpentinized and range from coarse olivine (remnant) rich dunites through pyroxenites, peridotites and gabbros. Serpentine veinlets with magnetite are common to all the units. Olivine grains can be distinguished through the serpentine alteration.

Along the northern margin of the ultramafics there are a few outcrops of gabbro and pegmatitic gabbro (1a). These are distinct from Unit 4 in their darker colour, variable grain size, lack of feldspar (plagioclase when present), serpentine alteration of pyroxenes and locally abundant biotite. Biotite occurs both in the groundmass and as coarse flakes in pegmatitic veins and pods.

Geochemically, the ultramafics and gabbros are a distinct group. The gabbroic marginal phase appears to have had a later introduction of potassium (biotite). A significant amount of gabbroic float was found along the northwestern margin of the ultramafic unit (Figure 6). Potassium introduction is a strong argument for a Pre-Thuya age for Unit 1.

3.4 Structure

The property covers an area of complex splay and block faulting at the north end of the Thompson-Louis Creek fault system.

Some of the major faults on the property are shown on the geology map (Figure 6). Major splay faults from the Thompson system trend westerly to northwesterly and are in the Nicola Volcanics are marked by wide zones of chloritic schist. Structural measurements and displacements indicate these are dextral shears with a large dip-slip component. Similar splay faults probably form the boundaries to the main ultramafic unit as is indicated by strong shearing and brecciation in a number of outcrops.

Between the main splay faults, especially in intrusive rocks, there are numerous faults with variable orientations and senses of movement. On the Dum Lake grid (Figure 7) the most common orientations are N, NE, E and SE. The N and NE set dip steeply to the east and southeast while the SE set dip steeply to the southwest. Lineations indicate both dip and strike slip components to these faults.

A northeasterly trending fault system appears to follow the Dum Creek valley and across the ultramafic. West of this interpreted structure, the ultramafic unit appears to have been rotated to a more northerly trend.

Faulting in the area clearly post dates the Thuya Batholith (Early Jurassic?) as all the main rock units have been displaced to varying degrees. Brecciated quartz veins along some structures indicate (reactivation) more than one period of deformation and post mineralization faulting.

3.5 ALTERATION

This section deals mainly with the alteration of intrusive rocks in the Dum Lake area; outside this area, there has not been any detailed alteration mapping. Detailed mapping on the Dum Lake grid by I. Mitchell (Figure 7) distinguished a number of alteration zones within the intrusive rocks (Units 5, 6 and 7). Alteration is to a large extent controlled by the structures described in the previous section and in some cases is closely related to base and precious metal mineralization.

Propylitic alteration is widespread. Generally, in the less fractured intrusives, it is very weak with epidote or chlorite alteration of mafic minerals and local introduction of carbonate. Stronger propylitic alteration (Units c, d) with significant chlorite, epidote and carbonate, 1 pyrite and hematite, tends to occur along north to northwesterly trending structural zones and as haloes to quartz veins or silicified zones (Unit a).

The most prominent zones of propylitic alteration occur along Dum Creek (Figure 7) and on the baseline at 800E (1990 drilling). Within these propylitic zones are structures (core zones) that are either:

1. Strongly silicified (Unit a) with weak quartz vein stockworks, pyrite, hematite (specular) and local disseminated or veinlet chalcopyrite, 1 galena; or

2. Quartz veined with local galena, chalcopyrite and pyrite.

Both of these locally yield significant Au, 1 Ag, 1 Pb, 1 Cu values.

East of Dum Creek, milky quartz veins were found along northerly and easterly trending structures. The veins cut monzonitic (Unit 6) and dioritic (Unit 5) rocks and yield gold values where mineralized with disseminated to lensy galena and pyrite, 1 chalcopyrite. Propylitic alteration haloes to these veins may extend outward for many metres and where well developed, commonly contain areas with fracture controlled k-spar veinlets. Narrow silicified zones adjacent to the veins contain disseminated pyrite, local magnetite and k-feldspar.

The other prominent alteration type in the Dum Lake area, is the strong chloritization (Unit b) of east and northwest trending structures. These zones may be tens of metres wide and rarely contain gold values where there is no strong propylitic alteration (epidote, carbonate, pyrite).

3.6 Mineralization

Since 1986, a number of mineralized areas have been found on the property either by prospecting or follow-up to soil geochemical surveys (prospecting and trenching anomalies). The styles of mineralization found on the Dum Lake grid during recent programs will be discussed first.

3.6.1 Dum Lake Grid

Virtually all the known bedrock mineralization in this area was found during the 1990 exploration program. In 1989, quartz float and subcrop with gold, silver, lead and copper values was found on Mineta's grid (No. 3) by Corona and Placer Dome geologists during follow-up prospecting of soil anomalies.

Mineralized bedrock and float locations, found during the 1990 Dum Lake grid surveys, are shown in Figure 10. Bedrock mineralization within the grid area consists of:

(i) Quartz veins with ± galena, pyrite, chalcopyrite and variable wallrock silicification, k-feldspar and propylitic alteration. These veins occur throughout the grid area and in most cases follow northerly trending structures. The more prominent mineralized veins with their grid locations and representative values are as follows:

> **L1700E @325S. (Trenches 1 to 7)** The trenches expose a north trending west dipping milky quartz vein system up to 1.5 metres wide. Gold values average between 5 and 7 g/t over a width of 1.5 metres (vein + mineralized wallrock). Higher values include 22.3 g/t Au, 162 g/t Ag, 1.29% Pb and 0.16% Cu over 0.6 metres. Gold values to 0.4 g/t were obtained from propylitic alteration five or more metres away from the vein.
>
> **L965E @150S.** A poorly exposed north trending quartz vein up to 0.7 metres wide in bleached, silicified intrusive. Gold up to 8.3 g/t, 66.7 g/t Ag, 0.5% Pb, low Cu. Silicified wallrock can yield up to 2 g/t Au.
>
> **L1495E @095N. (Trench 10 and outcrop)** Narrow north trending quartz vein 0.1 to 0.4 metres wide. Gold up to 5.6 g/t, Ag 75.6 g/t and 0.8% Pb, low Cu.

A large amount of polymetallic, quartz vein float has been found between L1500E and L1800E (Figure 10). Au values in the 0.6 g/t to 3 g/t range are quite common.

(ii) Structurally controlled alteration zones. Alteration zones consisting of silicified cores with wide propylitically altered haloes are well exposed along Dum Creek. They also occur to the west beneath deeper overburden. One such area on L80E was trenched and drilled in 1990. Polymetallic quartz veins do not appear to be common in these systems.

The Dum Lake alteration system between L900E and L1100E and 100N to 400S appears to be structurally controlled by a fault complex consisting of intersecting northeast and northwest trending (steeply dipping) components. The northwest set control a number of silicified zones exposed in the valley. These are between 1 and 2 meters wide and yield gold values up to 4.6 g/t. Silver, copper and lead values can be quite anomalous but are highly variable. Copper mineralization occurs within the propylitic haloes to these systems (but so far appears to be weak and patchy) and consists of lensy to disseminated, fine to medium grained chalcopyrite. Pyrite occurs along fractures.

The mineralized, Trench 19 alteration zone was found by a combination of geochemistry, prospecting and trenching. A wide zone (minimum width 6 metres) of strong pervasive silicification is exposed in this trench. Late quartz carbonate veins are locally aligned in a northerly and northwesterly direction. Some later structures also have these orientations. Silicification and pyritization are later than the chloritic alteration. Disseminated and fine fracture controlled specular hematite and pyrite are widespread and in concentrations ranging from 1 to 7%.

Gold values in the 0.5 to 2.5 g/t range occur throughout the trench and average 1.17 g/t for all samples. Values greater than 2.00 g/t are associated with strong silicification, higher veinlet density and higher pyrite content.

3.6.2 Other Mineralization

The Loon VII Fault Zone. A northwesterly trending splay fault crosses the Golden Loon VII mineral claim (Figure 6). Narrow quartz veins with galena and pyrite are fairly common in the Nicola volcanics near the structure. Many of these were sampled during the earlier Mineta surveys and yielded, over narrow widths, silver values up to 30 g/t and lead values to 0.4%.

Spokane Creek Fault Zone. This is a major splay fault which trends westerly and passes through Dum Lakes (Figure 6). In the upper reaches of Spokane Creek a number of quartz veins were discovered during the 1990 mapping. The veins are up to 50 cm wide and cut the schistose (Nicola) volcanics adjacent the fault zone (Golden Loon II claim). Veins with disseminated to blebby galena and pyrite yielded low Ag and Pb values.

Silicified Ultamafics with Chalcedony. A series of old trenches in the southern part of the Golden Loon VII claim expose strongly brecciated, silicified and chalcedony veined ultramafics. Where the chalcedony veining is better developed, minor disseminated pyrite, galena and magnetite may be present. Sampling of this material by Mineta (1986) yielded anomalous gold values to 0.3 g/t.

Silicified Monzonite Float. During regional mapping in 1990, two areas with highly siliceous float were found outside the Dum Lake grid (Figure 6). In both areas the float consisted of heavily silicified quartz-carbonate veined monzonite with up to 10% disseminated pyrite and local specular hematite. This material is very similar to the silicified zones outcropping in the Dum Creek area.

The first area is found on the 1990 access road within the Golden Loon III mineral claim (road station 1900E). Anomalous gold values to 200 ppb were obtained from large (1 2 metres) angular subcropping boulders.

The second area lies along the old logging trail on the Golden Loon IX claim. Large angular boulders, identical to the above mentioned ones, were discovered near the interpreted ultramafic contact with the Thuya intrusive rocks. A few samples yielded gold values up to 300 ppb.

4.0 TRENCHING PROGRAMS

In June and September 1990, the geochemical, geophysical and geological targets on the Dum Lake grid were tested by trenching using a Hitachi 200 excavator provided by Cam-Mac Construction and Management Ltd of Kelowna.

4.1 Phase I Trenching

During June, two days were spent trenching a strong soil anomaly and mineralized subcrop (quartz veins with Au, Ag, Pb and Cu) in a small area centred on Line 1700E at 325S. Seven short trenches averaging 1.5 metres in width and totalling 126 linear metres were excavated in this area.

Figure 11, a trench plan, shows all the trenches, sample locations and analyses for the phase 1 trenching. The trenching exposed a 60 metre strike length of a north trending quartz vein system cutting variably silicified and propylitically altered (chlorite, epidote, carbonate) monzonite to quartz diorite.

In the northern trenches (2 and 5), the vein is between 0.5 and 1.3 metres wide, dips 50° west and exhibits strong wallrock silicification with disseminated pyrite and patchy K feldspar alteration with magnetite. Heavy galena, chalcopyrite and pyrite mineralization occurs within the vein along margin parallel fractures. The vein, with a minor amonnt of clay gouge, follows a brittle fracture in the diorite.

To the south and uphill (Trenches 1 and 7), the vein system splays and weakens. In the most southerly trench (1), there are two 5 metre wide zones of silicified and carbonated diorite containing local epidote and K feldspar. The zones are separated by 4 metres of weakly altered diorite. Within the stronger alteration, milky quartz veins up to 20 cm wide locally contain significant galena and pyrite (up to 30%).

Gold values occur over the entire 60 metres of exposed quartz veining. Better mineralization was found in the northern trenches with values from 2 to 12 g/t Au over 1.5 metres (vein plus silicified wallrock) being obtained. The quartz vein yielded gold values to 22.3 g/t over a 60 cm width with Ag to 162 g/t, 1.29% Pb and 0.16% Cu. In the southern trenches, lower gold values are spread over greater widths (vein plus silicified wallrocks), for example: 0.41 g/t Au over 5.5 metres in trench 1. Some individual veins do carry similar Au, Ag, Pb and Cu values to those in the northern trenches but do so over much narrower widths.

4.2 Phase 2 Trenching

During September, two weeks were spent trenching a number of geochemical, geophysical and geological targets within the Dum Lake grid. Twenty one trenches and pits with a combined length of 539 metres were excavated on the targets. Most averaged between 1.5 and 2.0 metres in width. Pit 19 was wider, due largely to deeper overburden. The location of all pits and trenches is shown on Figure 11. Table 1 gives a summary of the trenchlng with significant assays. Individual trench plans with analyses are available in Appendix D Figures 12 to 29.

Two significant new gold showings were exposed by the September trenching program.

(a) Baseline, 8+00E Area

Prospecting in this area discovered a large amount of siliceous float containing pyrite and specular hematite and gold values in the 1 to 5 g/t range. The mineralized float combined with strong gold soil anomalies and a weak chargeability anomaly made this area a priority target for trenching. Deep trenching (13, 14, 15, 17, 18, 20) in this area did not expose very much bedrock. Trenches 13 and 14 exposed small subcrops of silicified bedrock containing disseminated pyrite and anomalous gold values. Trench 19 (benched) managed to expose a ridge of strongly silicified bedrock but failed to define the zone margins.

The zone consists of pervasively silicified intrusive rocks (quartz-monzonite, monzonite) cut by quartz veining (weak stockworks) with variable orientations. Specular hematite and up to 8% fine to medium grained disseminated pyrite flood the zone. Gold values are anomalous throughout the zone and range up to 2.90 g/t; the average being 1 g/t. Continuous chip sampling yield averages up to 1.8 g/t Au over 6.20 metres. One 2.1 metre section yielded 2.74 g/t. Associated copper, lead and zinc values are generally low. Silver values to 5.9 g/t were obtained.

(b) 15+25E, 3+25S Area

This area lies 170 metres west of the polymetallic (north trending) quartz vein exposed during the June trenching program. A plus 1 g/t gold soil anomaly was trenched (23, 24, 25, 26, 27 and 28) revealing a number of strong easterly trending, steeply dipping structures which host broken quartz veins and lenses of pervasive strong silicification. Samples from the veined and altered material yielded up to 2.5 g/t gold and significant lead and silver (23 g/t). One 2.90 metre sample section averaged 2.03 g/t Au.

TABLE 1

GOLDEN LOON PROJECT (1064) PHASE II TRENCHING SUMMARY

TRENCH NO.	GRID LOCATION	AZIMUTH	DIMENSIONS	SIGNIFICANT ASSAYS (Au gt/length m)	COMMENTS
8	17+90 E 0+10 N	160	4 X 1.5	NONE	Narrow NE fault.
9	16+75 E 0+60 S	280	11 X 1.5	NONE	Propylitic alteration zone.
10	15+00 E 0+90 N	273	38.5 X 1.5	5.60 Au, 75.6 Ag 0.77 Pb/0.1 m	Narrow north trending qtz vein.
11	8+60 E BL	172	57 X 1.5	NONE	Testing beneath silicified float found along road.
12	9+00E 0+30 S	231	8.7 X 3.5	----	No bedrock.
13	7+90 E 0+10 S	273	42.0 X 1.5	0.34/1.0 m	Silicification of west edge of bedrock exposure.
14	7+50 E 0+10 S	271	33.0 X 1.5	0.30/2.10 m	Strongly weathered, silicification with Py.
15	8+30 E 0+60 S	272	31.9 X 1.5	---	Deep overburden
16	7+10 E 2+60 S	240	25.0 X 1.5	---	Deep overburden/sand. Testing I.P. anomaly.
17	6+70 E BL	210	10 X 1.5	---	" "
18	6+70 E 0+15 S	210	10 X 1.5	---	" "
19	7+80 E 0+15 S	350	19 X 8	1.10 gt/6.80m 1.80 gt/6.20m Inc 2.74 gt/2.10m	Pit on silicified zone. Edges of zone not apparent in pit (1
20	8+60 E 0+38 N	270	5 X 1.5	NONE	Pit on soil anomaly.
21	16+15 E 0+70 N	270	76.5 X 1.5	NONE	Long trench in area with much quartz float with Au values.
22	16+38 E 2+95 S	088	13.0 X 1.5	---	Deep overburden. N. extension `high grade' quartz vein.

GOLDEN LOON PROJECT (1064) PHASE II TRENCHING SUMMARY

TRENCH NO.	GRID LOCATION	AZIMUTH	DIMENSIONS	SIGNIFICANT ASSAYS (Au gt/length m)	COMMENTS
23	15+25 E 3+25 S AREA	275	35.5 X 1.5	0.63 gt/2.05m	Mineralized structure Az 070.
24	" "	028	20 X 1.5	No sampling	Unmineralized.
25	" "	161	22.3 X 1.5	7.08 gt/1.0m (To be checked)	Poorly exposed 160 Az structure.
26	15+25 E 3+25 S AREA	211	17.5 X 1.5	Low gold values in walls to structures.	Cross trench.
27	" "	156	15 X 1.5	2.03/2.90m	Mineralized structure 071 Az.
28	" "	137	19 X 1.5	NONE	
29	18+14 E 2+90 S	287	25 X 1.5	NONE	Trench on mineralized quartz subcrop.

538.9 linear m.

The new gold showing is significant in that it is hosted by an easterly trending structure (Az 70°. Many other interpreted and poorly exposed structures on the Dum Lake grid have this trend and locally coincident gold anomalies.

(c) Other Targets

Trenching on a number of other targets within the Dum Lake grid met with limited success.

Trench 16, on the main I.P target near line 700E, failed to reach bedrock. In this area bedrock is overlain by in excess of 5 metres of unconsolidated sand and coarse boulders.

Trench 22 tried to uncover the northward extension of the polymetallic quartz vein exposed in the June program (Trenches 1 to 7) but encountered deep overburden and did not reach bedrock.

Trenching polymetallic soil anomalies and mineralized float locations between L1500E and L1600E, north of the Baseline (Trenches 10 and 12), exposed a number of narrow, northerly trending structures; some of which host small quartz veins. In Trench 10, a 10 cm wide vein containing galena and pyrite yielded 5.6 g/t Au, 75.6 g/t Ag and 0.8% Pb.

5.0 GEOCHEMISTRY

5.1 Soil Geochemical Surveys

Geochemical soil sampling was conducted over the Dum Lake grid during June and October 1990. The main grid (Lines 6+00E to 18+00E) was sampled during June; the grid extension (Lines 0+00E to 5+00E) in October.

The 1988 Mineta soil geochemical survey covered the Dum Lake grid area with samples taken along lines trending N30E while those by Corona (1990) were collected along lines trending N120E (perpendicular). In both surveys the sampling interval was 25 metres. The object of changing the line orientation was to increase the number of data points in order to more clearly define base and precious metal soil anomalies.

(a) Method

Soil samples were taken from the 'B' soil horizon using narrow shovels. Brief survey notes were made at each sample station regarding topography, vegetation, horizon, colour, drainage etc. Throughout much of the grid area, the 'B' soil horizon underlies a narrow but well developed leached horizon (E). Boulder concentrations on surface often made sampling difficult; hence soil pits often had to be dug to depths greater than 50 cm.

The soil samples were collected by Corona personnel. A total of 637 soils were taken from 25 metre spaced stations on 100 metre spaced topofil lines running parallel to the grid base line (Az 300°). The samples were placed in kraft paper envelopes, field dried and sent to Eco Tech Laboratories Ltd. in Kamloops B.C. Samples taken from the main grid (June) were geochemically (A.A.) analyzed for gold, silver, copper and lead. Those taken from the grid extension (October) were analyzed by the same method for gold, copper and lead. The laboratory methods are detailed in Appendix A and the certificates for analyses in Appendix B.

(b) Results - Main Grid

The soil geochemical data from the Mineta and Corona surveys are combined in three maps showing gold (Figure 27), copper (Figure 28) and lead (Figure 29). The various classes and anomaly thresholds were defined using histograms and cumulative frequency plots.

In the eastern half of the Dum Lake grid gold, copper and lead anomalies tend to cluster and align in a northerly direction. One concentration of strong gold and lead anomalies (weak Cu) occurs between Lines 1500E and 1700E at 300S to 400S. A second weaker concentration of gold and copper anomalies (local Pb) is centred on Line 1500E at 100N.

In the western half of the grid, a cluster of moderate to strong gold anomalies (local Cu) is centred on the Base Line between 700E and 1100E and extends locally from 100N to 300S.

(c) Results - West Grid Extension

The Corona and Mineta soil geochemical data covering the West grid extension are combined in three maps; Gold (Figure 30), Copper (Figure 31) and Lead (Figure 32). The anomaly classes are the same as for the Main Grid.

A number of moderate to strong gold anomalies occur in the northern part of the grid (north of 500N). These are all single station anomalies and do not correlate with copper or lead.

Stronger copper anomalies occur in the southern part of the grid. A cluster on Line 500E at 100 to 200S produced the three highest grid copper values; the highest being 1800 ppm.

Pb values are low throughout this grid and only two, weak single station anomalies were obtained.

5.2 Prospecting

Between May and October 1990, Corona personnel prospected intermittently for mineralized float and outcrop in the Dum Lake grid area. All sample sites were flagged and tied into the grid. these are shown in Figures 6 and 10. The survey results are discussed in this report under mineralization.

(a) Method

The general rule when sampling mineralized float was that the boulder should not be smaller than 20cm (long axis) and have some degree of angularity. These boulders were considered to have originated locally. Rock samples sent for analyses weighed in the 4 to 8 kg range. All samples were sent to Eco Tech Laboratories (Kamloops) and geochemically (A.A.) analyzed for gold, silver, copper and lead. Follow-up assays were completed on samples where Au > 2 g/t, Ag > 30 g/t and Cu and Pb > 6000 ppm. The certificates of analyses can be found in Appendix B.

5.3 Rock Geochemistry

A number of representative rock samples were taken from the main rock units during geological mapping and are described in the geology section. Eighteen of these were submitted to Eco Tech Laboratories for whole rock analyses. The analytical method is detailed in Appendix A and certificates of analyses in Appendix B. Major elements were plotted on two main types of variation diagram, Total Alkalis - Silica (Figure 9) and AFM.

6.0 GEOPHYSICS

6.1 Induced Polarization and Resistivity Survey

This survey, conducted by Scott Geophysics Ltd from July 30 to August 2nd 1900, is detailed in a separate report (August 12, 1990) by Alan Wynn B.Sc. The geophysical survey consisted of a number of test lines.

The main aim of this survey was to develop drill targets in the western half of the Dum Lake grid. A significant amount of angular, silicious float with up to 7% disseminated pyrite yielded gold values to 4 g/t in the base line area (8+00E). This disseminated mineralization is a good target for I.P.

(a) Method

The program consisted of 5.3 kilometres of pole-dipole I.P. using 25 metre 'A' spacing and N=1 to 5. Lines 700E, 800E, 900E, 1000E and the base line were run using the above array while lines 100N and 100S and the base line were run using a reconnaissance array.

The survey was performed utilizing a Scintrex IPR11 receiver, a Scintrex 2.5 kw transmitter and an array of A=25, N=1. The reconnaissance array used was N=1 and 2 at A=25 meters and N=1 and 2 at 75 meters. Readings were taken in the time domain utilizing a 2 second on/2 second off alternating square wave.

Chargeabilities (mv/v) were measured at 10 delay times after cessation of the current pulse. These values, along with the apparent resistivity, the primary voltage during the current on time, the self potential gradient and the line and station number are presented as summary data listings.

The results are presented in posted and contoured pseudosection form of apparent resistivity and M7 chargeability (Appendix C).

(b) Results

A weak, narrow chargeability anomaly was outlined on the base line at 800E in the area of auriferous float. The anomaly was not present or recognizable on Lines 700E and 900E nor on reconnaissance lines 100N and 100S.

One anomalous zone was located on the south end of lines 700E to 1000E, just north of a small lake. The I.P. profiles indicated the overburden in the anomaly area was in the order of 5 to 15 metres deep. The anomaly width was 1 to 2 'A' spacings (25 to 50 metres) and its trend was parallel to the Base Line (Az 300°). Mineta's ground magnetic data (1988) strongly suggested that the anomaly was near the margin of the main ultramafic unit.

7.0 CONCLUSIONS

The Golden Loon Property covers the northeastern part of the Thuya Batholith and to the north an area of complex faulting in Nicola volcanics and sediments. In the Dum Lake area, intrusive rocks ranging in composition from quartz monzonites to syenogabbros, possibly represent more alkalic marginal phases to the Thuya Batholith.

Gold mineralization in the Dum Lake area is closely related to these alkalic intrusive rocks and occurs in two distinct environments:

1. North and locally east trending quartz veins containing pyrite, galena and some chalcopyrite. The veins often yield gold values in the 1 to 30+ g/t range with significant lead and silver values. Silicification, k-feldspar and propylitic alteration form narrow haloes to these veins.

2. Large structurally controlled alteration zones with highly siliceous cores and wide propylitic haloes. The silicious cores feature pervasive strong silicification, weak quartz-carbonate veinlet stockworks and disseminated and fine fracture controlled specular hematite and pyrite. Two zones have been identified; one at Dum Creek and a second in Trench 19. The latter yielded gold values in the 1 to 3 g/t range from a northwesterly(?) trending silicified core with a width in excess of 10 metres. The Dum Creek zones occur on the sides of a steep valley and are poorly exposed. They have yielded gold values up to 4.6 g/t over narrow widths.

The auriferous gold veins offer some potential for higher grade-small tonnage deposits. The alteration zones, to the west, offer lower grade-larger tonnage targets, containing possibly smaller higher grade core zones. In 1990, Corona developed and partly tested these targets in the Dum Lake area. The most promising alteration zone (Trench 19) and an interesting I.P. target were tested by a short diamond drilling program in October (see drilling report). The heavily silicified core of the Trench 19 zone yielded wide drill intersections (up to 14.3 metres) with gold values in the 1 to 2.7 g/t range. The better mineralization, based on limited drilling, appears to be confined to the trench area. Intersecting fault zones may control the better gold mineralization (north east, north west, and north trending sets).

8.0 RECOMMENDATIONS

The 1990, Corona exploration program on the Golden Loon property, tested the better gold targets developed in the Dum Lake area. The potential exists, east and west of the Dum Lake grid, for large alteration related gold zones. In these areas, overburden is deeper and soil geochemistry may have limited use. Geological, geophysical and geochemical surveys combined with prospecting and drilling is required to develop these targets. The 1990 program did not drill test any of the vein targets within the Dum Lake grid. If this style of mineralization is considered an economic target, some drilling should be completed on the Line 1700E zone. Potential exists for similar veins throughout much of the northern part of the property.

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4.0 1990 DRILL PROGRAM

4.1 Location and Method

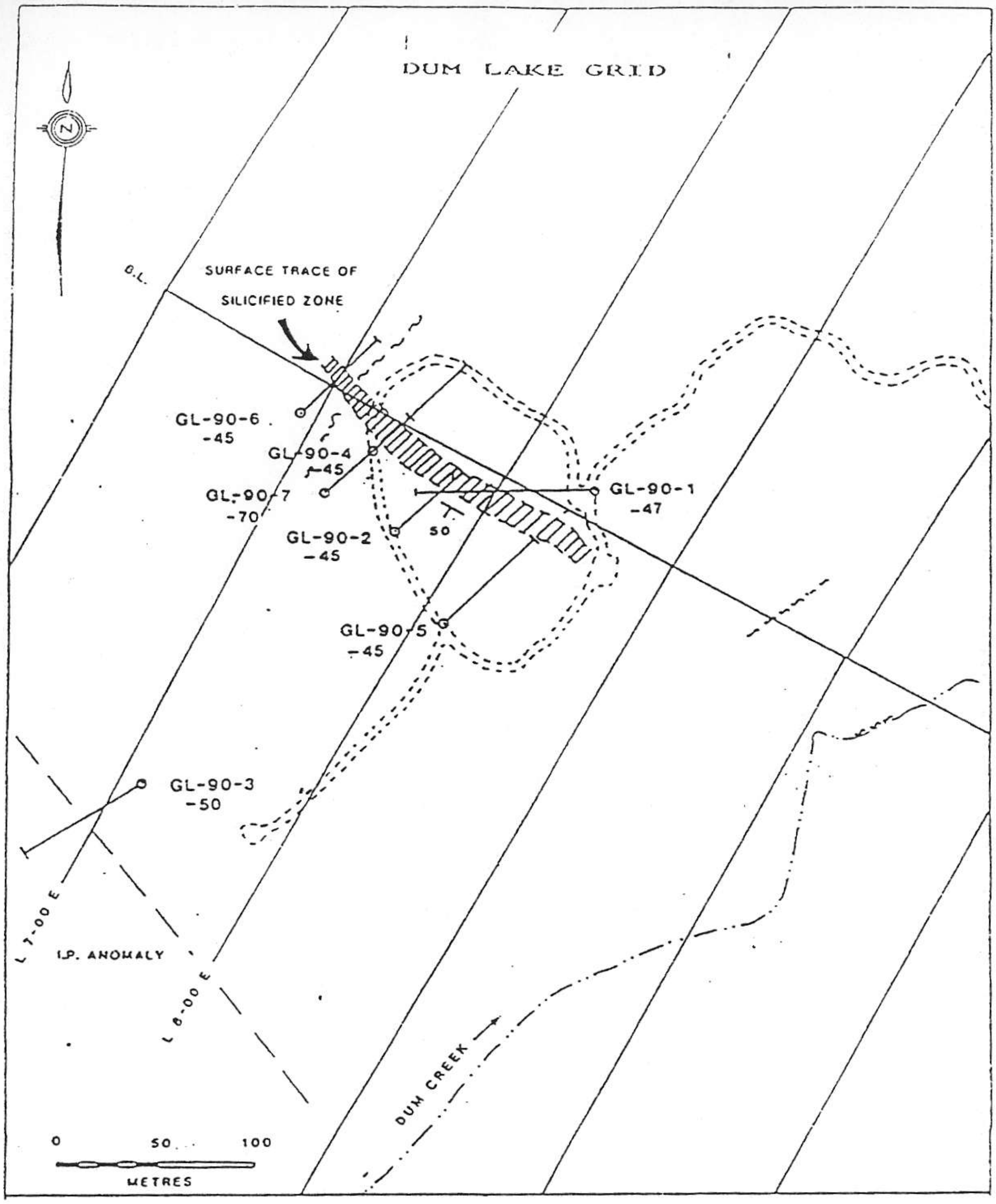
In the summer of 1990 many of the geochemical, geophysical and geological anomalies on the Dum Lake grid were tested by trenching. Deep overburden prevented the testing of some of the better targets such as:

(1) an I.P. anomaly straddling the south end of lines 700E to 1000E and

(2) the strike extensions of the gold bearing silicified zone uncovered in Trench 19.

These two anomalies were the target for the 1990 drill program.

Core Enterprises of Clinton, B.C. were contracted to carry out the diamond drilling program. During the period from October 23 to November 15, 1990, seven NQ diamond drill holes totalling 691.10 meters were completed. Drill hole collar locations are shown in Figures 2 and 3 and drill sections in Figures 4 to 9 (in Appendix IV). Table 1 lists pertinent drill hole locations. The datum elevation is relative to the bedrock elevation in Trench 19.



CORONA CORPORATION		
GOLDEN LOON PROJECT 1990 DRILL PLAN		
PREPARED BY: kG	SCALE:	PROJECT NO.: 1064
N.T.S.: 92 P/8	DATE: 11/90	MAP NO.: 3

4.2 Geology

Two specific areas were drill tested. The first drilling target was the mineralized zone centred on Trench 19 and the second an I.P. target along the southwest portion of th Dum Lake grid. One hole (GL-03) tested the I.P. target while holes GL-1, 2, 4, 5, 6 and 7 tested the mineralized zone uncovered in Trench 19.

The I.P. Anomaly is a northwest trending zone with moderate chargeability and low resistivity. Diamond drill hole GL-03 tested this zone and intersected a gabbroic dyke swarm containing disseminated pyrite. These dykes intrude the main ultramafic complex. Compositionally, the gabbros are alkali rich and may be related to the Thuya intrusive rocks to the north. This association suggests that the ultramafics are older than the Thuya Batholith.

Hole GL-03 was expected to intersect the monzonite-ultramafic contact but instead collared in an equigranular pyroxenite (strongly magnetic) and remained in this unit throughout its length. The interpreted contact clearly lies to the northeast of the hole collar.

The dykes consist of mafic monzonites which grade into mafic gabbros (monzonite contaminated by ultramafics). Intrusive breccias occur locally and contain subangular fragments of pyroxenite preserved in a gabbroic matrix.

The Trench 19 Zone was tested by six holes. This is a gold bearing silicified zone hosted by a quartz monzonite phase of the intrusive rocks (Thuya?). The quartz monzonite is medium to coarse grained, equigranular with 20-30% quartz, 30-40% chloritized mafic minerals and 30-40% feldspars (Plagioclase and K.spar). The monzonite is variably altered near the mineralized zone.

Holes GL-01 and GL-04 intersected a northwest trending, southwest? dipping fined grained dyke. The dyke is relatively unaltered but is subject to regional sub-greenschist alteration which suggests it postdates alteration and mineralization. An intrusive breccia, forming a near vertical pipe like body was mapped in Trench 19 and intersected in holes GL-01 and GL-02. This unit consists of a fine grained, chlorite altered matrix with 1-10 cm angular fragments of quartz monzonite. The breccia has only been seen in the section directly below and within Trench 19 and while it predates the mineralization it maybe related (control?).

4.3 Structures, Alteratian and Mineralization

The monzonite-gabbroic dyke swarm intersected in DDH GL-03 appears to strike 310° and dip 70° to the west. The strike likely mimics that of the nearby ultramafic monzonite contact. The genetic implications are that the monzonite intrudes the older ultramafic complex. The pyroxenite is weakly altered with chlorite, serpentine, talc and picrolite being restricted to faults.

Near the gabbro dykes some of the pyroxenite is altered to biotite. The ultramafic contaminated monzonite is a coarse grained hornblende rich gabbro containing epidote veinlets and up to 2% late stage carbonate. Pyrite occurs as disseminations (1-3%) throughout the dyke area and is the probable cause of the I.P. chargeability anomaly. The resistivity low feature is possibly due the higher conductivity of the gabbroie dykes and related faults. No significant Au, Pt, Pd or Cu values were obtained from split core sections. The ultramafic rocks have high background chromium levels in the 1000 to 2000 ppm range. The highest chromium value was 0.324%.

The six holes on the auriferous silicified zone are shown in figure 3 The zone is bounded by grid lines 700E and 900E. The program objective was to drill test the Trench 19 mineralization at depth and along strike. Five of the six holes intersected, over a strike length of 150 metres, the silicified zone(s). DDH GL-O1 was drilled in the footwall to the zone.

The apparent strike to the zone is 310° with a dip to the southwest of between 50° and 60°. The zone consists of a heavily silicified core with disseminated and fracture controlled pyrite and specular hematite. The silicification commonly has sharp boundaries and a rock fabric which indicates a structural control. Elsewhere, as in hole GL-07, the contacts are graditional.

There are several local cross-cutting faults in the drilled area (Figures 2 and 3) whose role in the alteration and mineralization is not yet clear. These faults trend 020°-030° and probably dip to the south. Some late, post mineralization movement is apparent in Trench 19 and is indicated by displacement of the silicified zone in hole GL-05. There is also a possibility these structures serve as conduits and structural controls for alteration and mineralization.

The alteration and mineralization in this zone has many "porphyry" affinities. The earliest alteration is the most widespread and consists of pervasive propylitization with or without potassic alteration. The propylitic alteration is not strong when compared to alkaline porphyry systems in British Columbia but it is quite distinctive in the Dum Lake area and may be a useful guide in exploration elsewhere on the property. Propylitic alteration in the drilled area consists of weak to moderate saussuritization of feldspars and replacement of mafic minerals by chlorite and magnetite. This alteration normally has 1-2% (disseminated and 1-2mm veinlets) specular hematite accompanying it. Younger epidote veinlets (1-5%, 1mm to 1cm) form a weak, persistant stockwork in the widespread propylitic alteration. Weak pervasive potassie alteration is also seen with the propylitic alteration in a few areas (ie. GL-06 and GL- 07) with potassic alteration turning the outer 50% of plagioclase grains a light pink. The potassic alteration appears stronger to the north of the mineralized zone but contains no significant gold values. While the propylytic alteration returned no ecoaomic gold values; it is weakly anomalous throughout with values in the 5-80 ppb range.

The mineralized zones are in the silicified cores of chloritic structures. The mineralized zone tested in the 1990 drill program follows a 310° trend but other mineralization trends may exist. The chlorite alteration is fine grained (with magnetite) and commonly displays a strong fabric parallel to the main structure. Holes GL-02 and GL-06 intersected zones of chlorite alteration contains 2-5% disseminated and 2-5mm veinlets of specular hematite and 3-4% disseminated medium grained pyrite.

As the silicified core is approached, specular hematite and pyrite content increases and weak to moderate silicification overprints the chlorite alteration. The alteration zones are cut by 3-5% (2-3mm) grey quartz veinlets. Gold values are elevated in these zones, particularly in the silicified portions (values to 1.38 g/t Au). The alteration haloes can be up to 15 meters wide and therefore increase the size potential of the mineralized zones.

The highest gold values are in the core of the alteration zones and are associated with pervasive strong silicification. Cryptocrystalline silicification of the matrix obliterates most primary textures and as intensity increases, the color changes from a dark grey (some remnant chlorite altered blebs) to a light grey (aphanitic matrix). In the core zones, pyrite content increases to 3-10% medium grained disseminated pyrite with 2-10mm wide pyrite veinlets. Specular hematite, as disseminations and blebs, totals 2-20%. Chlorite rich fractures are ubiquitious(1-2% ,1-2mm wide) as are quartz veinlets and quartz replacements in tiny tension gashes.

Gold values generally increase with the intensity of silicification and range from 5 ppb to 4.35 g/t Au with an average of approximately 1 g/t. The zone is base metal poor with low copper and lead values and no zinc. Pathfinder elements for gold appear to be ailver and arsenic (Au:Ag 2:1-1:10, Au:As 1:10-1:50). Hole GL-05 intersected a 10 metre wide heavily silicified zone which assayed only 0.41 g/Au/t. The reason for the lack of gold values is unclear.

Wide areas of weak to moderate silicification overprint the porpylitically altered quartz monzonites around the silicified structures. In the silicified zones (60+ meters in GL-07), the rock is a medium grey color with only vague outlines of the feldspars and quartz preserved. The gold values are sub-economic but are elevated in the 5-450 ppb range.

In the last hydrothermal event, late stage grey carbonate veinlets overprint the propylytic and chlorite alteration. The carbonate alteration to date has not yielded significant gold values.

The silicified zone is open both along strike and at depth. The zone may have a distinct rake to the south as is indicated in holes GL-06 and GL- 07. The lack of gold values in GL-05 makes mineralization continuity questionable. Other mineralized structures may exist within the drilling area and within the Golden Loons property.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The 1990 drill program tested two of the better targets on the Dum Lake Grid.

The first target, an I.P. anomaly, was caused by disseminated pyrite in a gabbroic dyke swarm intruding ultramafic rocks. No significant precious metal values were obtained.

The second, an auriferous structurally controlled "porphyry style" zone was tested by six diamond drill holes. This zone, centered around Trench 19, has an apparent strike of 310° and a dip of 50-60° to the southwest. The drilling has tested 150 meters of strike length and 50 meters of depth extent. The structure remains open along strike and at depth. The potential exists for a large tonnage-low grade system with slightly higher grades in the structurally controlled core zones.

Gold values in the silicified core zones range to 2.67 g/t over 10.4 metres (GL-04). It is recommended that a hole be drilled under GL-02 to test the southerly rake of the zone. Northeasterly trending structures in the northern part of the drilled area have not been drill tested for mineralization . A hole collared near GL-07 and drilled in a northerly direction would test the intersection of northeasterly and northwesterly trending structures.

Although gold values and/or widths of mineralization have decreased in the outer holes drilled along strike, the strike potential of this zone should be further tested, in particular, where intersections with cross structures are suspected.

The mineralized zone has a wide propylitic alteration halo. This alteration type could be used as a guide to locating other mineralized systems on the property. Arsenic is a good geochemical pathfinder to gold, especially in areas with deeper overburden. To this end, analyzing previous soil pulps for arsenic could be useful.

The Golden Loon Property covers an unusual and promising gold porphyry environment. Triassic alkaline intrusive complexes are known for having compact, yet diverse, mineral systems. The Golden Loon property may contain a similar environment. It remains largely untested and further systematic ground work with follow-up drilling is recommended.

TABLE 2

SIGNIFICANT VALUES IN 1990 DRILL INTERSECTIONS

DDH No	INTERVAL m	WIDTH m	ALTERATION	Au g/t	Ag g/t	As ppm
GL-01	14.4-17.1	2.7		0.17	0.9	<5
	20.2-21.2	1.0		2.07	4.6	48
	23.3-24.8	1.5		0.86	1.4	10
	48.1-49.0	0.9		0.18	0.6	5
	84.5-85.9	1.4		0.14	<.2	<5
	91.2-92.7	1.5		0.85	6.9	<5
GL-02	22.6-24.2	1.6		0.16	0.7	<5
	30.9-45.2	14.3		1.16	1.5	14
	incl.37.7-43.7	6.0		1.56	1.9	21
	incl.37.7-41.2	3.5		1.83	2.7	30
	45.2-46.7	1.5		0.23	<.2	<5
	46.7-48.2	1.5		1.02	0.7	12
	48.2-49.2	1.0		0.29	0.7	<5
GL-04	8.3- 8.9	0.6		0.29	<.2	7
	8.9-19.3	10.4		2.67	2.2	36
	incl. 8.9-10.4	1.5		3.88	2.8	32
	incl.17.5-19.3	1.8		4.35	2.8	66
	19.3-23.8	4.5		0.48	2.0	<5
	26.3-26.9	0.6		1.28	1.8	40
	29.8-32.2	2.4		0.20	0.2	<5
	34.6-36.1	1.5		0.32	0.3	7
	49.7-51.0	1.3		0.37	1.3	9
	74.8-76.7	1.9		0.25	0.8	7
GL-05	71.3-72.8	1.5	Strong silicif.	0.41	0.6	9
GL-06	23.2-25.0	1.8		0.21	<.2	7
	25.0-26.2	1.2		1.13	0.4	<5
	32.6-34.1	1.5		0.35	1.8	7
	37.1-39.0	1.9		0.14	<.2	6
GL-07	12.2-13.1	0.9		0.11	0.9	<5
	18.5-21.0	2.5		0.11	0.3	<5
	28.3-29.8	1.5		0.45	0.7	<5
	60.3-61.8	1.5		0.15	0.3	<5
	93.4-94.5	1.1		0.20	<.2	<5
	94.5-95.8	1.3		1.49	1.8	22
	95.8-97.3	1.5		0.10	<.2	<5