Geological Report on the BUG, PHIL and TOG - GOT - POT Group of Claims

BUG CLAIMS:

Latitude	**60 22'00"N**
Longitude	**134 12'00"W**
NTS	**105 D/8**

PHIL CLAIMS:

Latitude	**60 23' 15"N**
Longitude	**134 02'30"W**
NTS	**105 D/8**

TOG - GOT - POT GROUP OF CLAIMS:

Latitude	**60 25'00"N**
Longitude	**133 37'20"W**
NTS	**105 C/5**

Whitehorse Mining District
Yukon Territory

for

Dunvegan Exploration Ltd.
205 - 700 West Pender Street
Vancouver, B.C.
V6C 1G8

by

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David A. Shaw, Ph.D.
September 5, 1989

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

SUMMARY

The three properties that are owned by Dunvegan Exploration Ltd., the BUG property, the TOG property and the PHIL property, are located in the southwest part of the Yukon Territory. The nearest major settlement is Whitehorse which is located to the northwest, approximately 80 kilometres distance along the Alaska Highway. All properties are road accessible from this highway.

All interests in the claims are 100% owned by Dunvegan Exploration Ltd. and in total comprise 180 claim units.

The properties are largely underlain by Cache Creek terrane rocks recognized to be part of an ophiolitic complex, a dismembered ocean floor sequence.

Activity dating back to 1898 is recorded on the BUG claims when they were originally staked as the Cooper Bell claim. During the 1960's and early 1970's a limited amount of hand trenching was performed, on a chrome mica iron carbonate (listwaenite) alteration zone. This was subsequently drilled during a two hole diamond drill program. Core recovered during this program was re-assayed by G. McLeod and returned gold values up to 2.00 g/t (0.058 oz/ton). During the 1980's the claims have received a succession of small exploration programs that have focused on the strongly altered ultramafic rock. A trench was excavated at the site of a 750 ppb gold soil anomaly, chip sampling returned values from the trench of 1790 ppb gold over a width of 0.5m and 500 ppb gold over a width of 4.0m.

The ground now staked as the TOG group of claims was initially explored by Gordon McLeod in the 1970's whilst he was prospecting in the area. Work on the TOG claims has been limited to brief property examinations, minor mapping for asbestos, access construction and cat trenching. A pan concentrate from Seaforth Creek, located on the eastern perimeter of the property, assayed 0.7 oz./ton gold. A value of 0.262 oz./ton gold was returned from a sample collected on the property by S.B. Ballantyne in 1985. In late 1988 samples collected from the main showing by G. McLeod returned up to 31.651 oz./ton gold.

The PHIL claims were originally staked on behalf of G. McLeod in 1987 and have received limited attention since then.

The 1989 exploration program was directed towards gaining an understanding of the geology and the potential for economic mineralization. Results to-date have outlined strong structural controls on both the BUG and TOG properties associated with both an intense alteration of tectonically emplaced ultramafic bodies and anomalous to very high grade gold mineralization. On the BUG property a wedge of altered sediments anomalous in gold found within a well defined shear zone, has been documented. On the TOG property extremely high grade gold mineralization (assay values up to 41.482 oz/ton) has been mapped and sampled within a structually controlled zone of quartz veining and quartz carbonate alteration. The amount of gold mineralization is very encouraging and similar in type to the Motherlode district in California, noted for its spectacular pocket bonanza concentrations of gold within the vugs in quartz veins. Coarse visible gold has been found on the TOG property over a known strike length of 26 metres and across a true width of 5 metres in thirteen localities on surface. Geophysical surveying has detected conductors at the showing, suggesting mineralization may continue along strike for at least 140 metres.

On both the BUG and TOG properties the gold mineralized zones are open along strike and down dip. Furthermore there are additional targets that warrent investigation based on similar structures and (listwaenitic) alteration haloes as documented at the main showings.

The geological setting of the BUG and TOG properties is also very similar to that of the Atlin Gold Camp located 110 kilometres to the south.

INTRODUCTION

Dunvegan Exploration Ltd. of Vancouver, B.C., operates the BUG, PHIL and TOG properties, three seperate mining properties comprising 180 claims in the Whitehorse Mining District, Yukon Territory.

This report, prepared at the request of the directors of Dunvegan Exploration Ltd., describes the geological setting, history, 1989 exploration results and economic potential of the properties. As a result of the initital 1989 fieldwork a further exploration program is recommended on the BUG and TOG properties along with an estimate of cost.

During the 1989 field season (June 29 to August 3) W. Taylor supervised an exploration program on the BUG and TOG properties which included the establishment of a grid, rock and soil sampling, geological mapping and geophysical surveying. D. Copeland reviewed the initial program and commented on progress. During this period the climatic conditions were extremely favourable for conducting field activities.

Major sources of information consulted during the course of this study include: an assessment report on the BUG property by M.P. Webster (Noranda Exploration Co. Ltd., 1986), a report on the BUG property by T.J. Bremner (Department of Indian and Northern Affairs, 1987), an assessment report on the BUG property by G. Davidson (1988), a report on the TOG property by D.A. Shaw (1988) and various written communications between S.B. Ballantyne (Geological Survey of Canada) and G. McLeod (1985 to present day) that concerned both the BUG and TOG properties.

Property

The Dunvegan Exploration Ltd. holdings consist of 180 mineral claims. These are summarized in Table 1. (Dunvegan Exploration Ltd. has 100% beneficial interest in all of the claim units listed below).

Table 1

Claim	Grant Numbers	Expiry Date
Tog 1 - 10	YA82536 - YA82545	July 3, 1991
Tog 11 - 24	YB20446 - YB20459	July 18, 1992
Tog 25 - 44	YB24638 - YB24657	Dec 13, 1989
Tog 45 - 73	YB25431 - YB25459	Feb 28, 1990
Got 1 - 16	YB20460 - YB20475	July 18, 1992
Got 17 - 21	YB25460 - YB25464	Feb 28, 1991
Got 22 - 29	YB25465 - YB25472	Feb 28, 1990
Pot 1 - 16	YB20476 - YB20491	July 18, 1992
Bug 1 - 4	YA87163 - YA87166	May 25, 1991
Bug 5 - 12	YA94879 - YA94886	May 25, 1991
Bug 13 - 16	YA95186 - YA95189	May 25, 1991
Bug 17 - 20	YA97369 - YA97372	May 25, 1991
Bug 21 - 24	YA98074 - YA98077	July 2, 1990
Bug 25 - 50	YB12869 - YB12894	Feb 18, 1990
Phil 1 - 12	YA96636 - YA96647	Jan 14, 1990

Location and Access

The BUG claims (NTS 105 D/8) lie 70 kilometres southeast of Whitehorse, Yukon. The claims are located at the southeast corner of Marsh Lake at latitutde 60°22'N and longitude 134°12'W (figure 1). Access to the claims is via a two wheel drive road which meets the Alaska Highway 100 metres south of Judas Creek, and follows a southerly direction (Figure 2). The main showing (trench 1) is 8km along subsidiary 'cat' roads.

The PHIL claims (NTS 105 D/8) lie 70 kilometres southeast of Whitehorse, Yukon. The claims are located 3 kilometres east of the Judas Creek campground at latitude 60°23'15'N and longitude 134°2'30"W (figure 1). The PHIL claims are 9 kilometres east-north-east from the BUG claims. Access is via a two wheel drive gravel road which meets the Alaska Highway 2 kilometres south of Judas Creek (Figure 3).

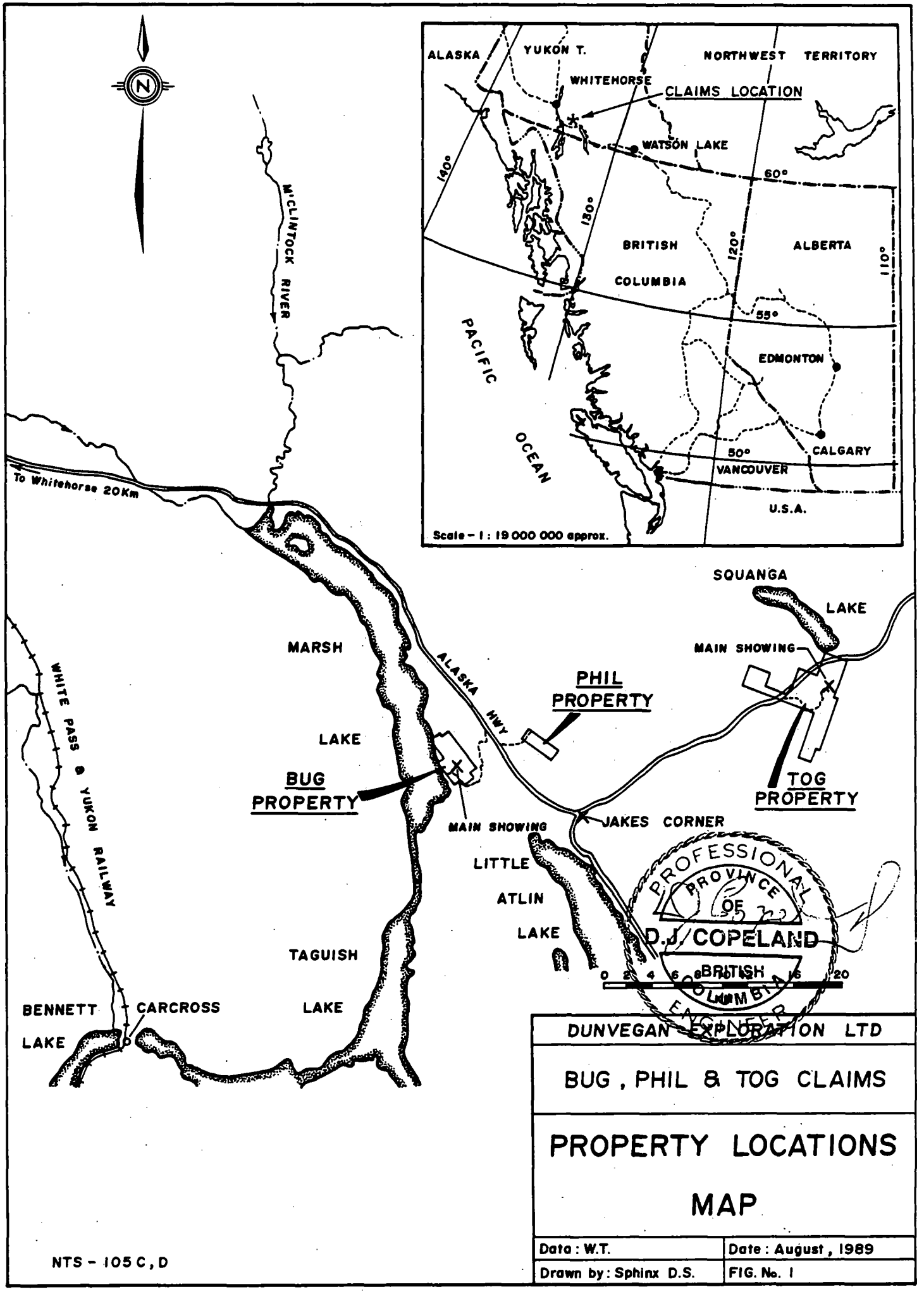
The TOG-GOT-POT group of claims, which here and after will be referred to as the TOG claims or property (NTS 105 C/5), lie 88 kilometres southeast of Whitehorse, Yukon (N.T.S. 105 D/8). The claims are located between Squanga and Delayee Lakes (Figure 1) at latitude 60°25'00"N, longitude 133°37'20"W. To the west, the claims cross the Alaska Highway at the southern end of Summit Lake. Access to the claims is via the Alaska Highway, 100 kilometres southeast from Whitehorse. South of Summit Lake and 24 kilometres west north west of Jakes Corner, a 4-wheel drive summer road winds in an easterly direction for 5.5 kilometres to the main showing (Figure 4).

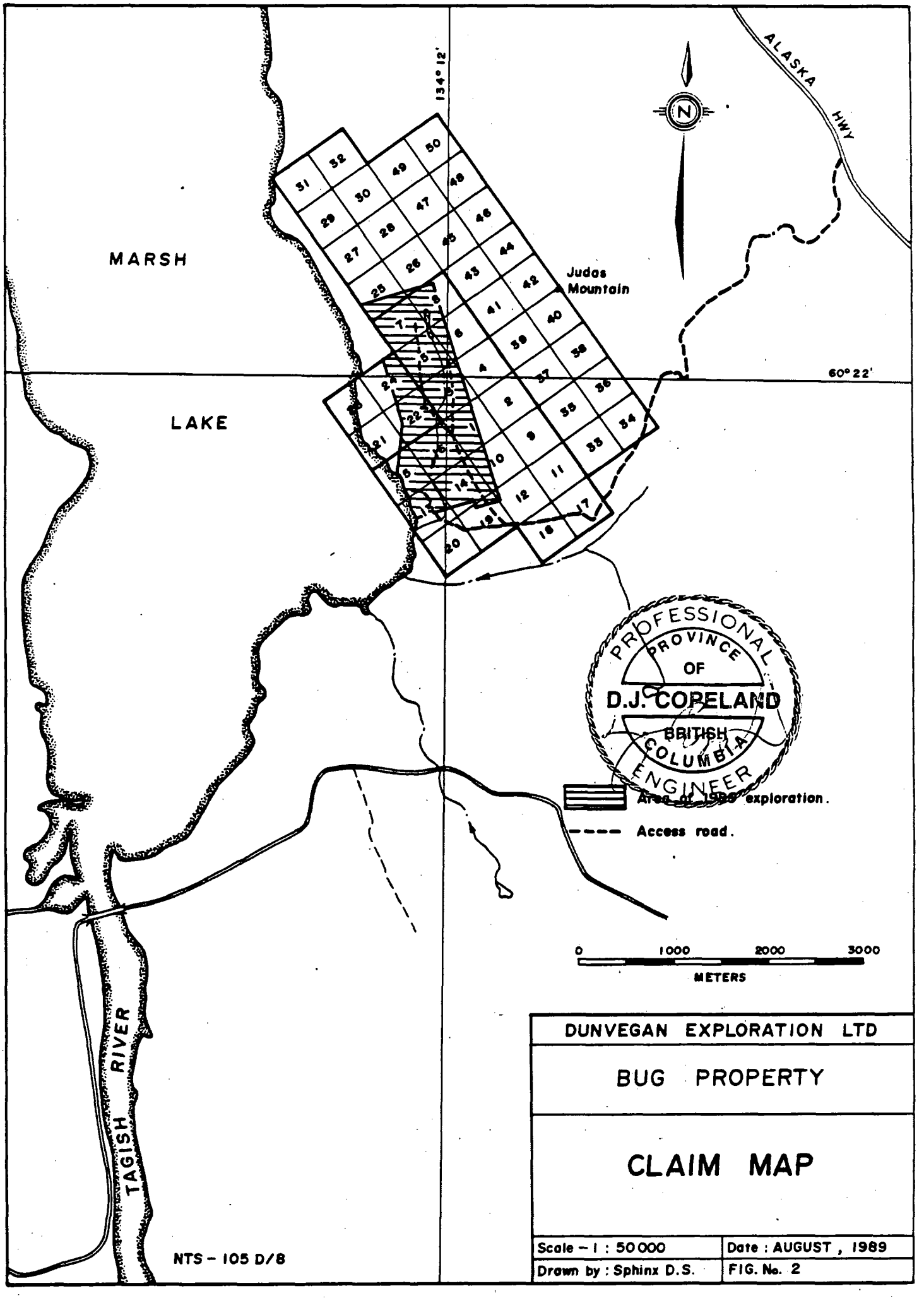
A resort and motel are conveniently located on Marsh Lake and at Jakes Corner, food and accomodation facilities are offered in addition to a service station. All three properties are a few minutes drive from these amenities, while Whitehorse has a daily bus and air service to Vancouver.

Physiography, Vegetation

Elevations on the area of exploration on the BUG claims range from 655 metres on the lake front, to 760 metres. Northwesterly trending "rocky" ridges occur east and west of a north/south trending stream, that drains the southwest quadrant of the property and flows into Marsh Lake. Vegetation on the BUG claims consists of moderately dense jackpine forest and to a lesser extent poplar trees. Alpine moss and shrubs occur on rocky ridges and marsh grasses with dense buckbrush grow in the swampy areas.

Elevations on the PHIL claims vary from less than 790 metres in the northwest, gently rising to 884 metres in the southeast. This relatively flat lying ground is incised by two north west flowing tributaries which run the length of the claims and drain into Judas Creek (Figure 3). Glacial sand and gravel deposits cover most of the claim. Vegetation on the PHIL claims consists of light jackpine and spruce forest. Towards Judas Creek the tributaries widen and in the swampy areas the buckbrush is dense.


N
ALASKA
YUKON T.
NORTHWEST TERRITORY
WHITEHORSE
CLAIMS LOCATION
WATSON LAKE
140°
130°
120°
110°
60°
55°
50°
BRITISH COLUMBIA
ALBERTA
PACIFIC OCEAN
EDMONTON
CALGARY
VANCOUVER
U.S.A.
Scale - 1 : 19 000 000 approx.
M'CLINTOCK RIVER
To Whitehorse 20Km
SQUANGA LAKE
MAIN SHOWING
MARSH LAKE
ALASKA HWY
PHIL PROPERTY
BUG PROPERTY
TOG PROPERTY
WHITE PASS & YUKON RAILWAY
MAIN SHOWING
JAKES CORNER
LITTLE ATLIN LAKE
TAGUISH LAKE
BENNETT LAKE
CARCROSS
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D.J. COPELAND
0 2 4 6 8 10 12 15 20
NTS - 105 C, D
DUNVEGAN EXPLORATION LTD
BUG, PHIL & TOG CLAIMS
PROPERTY LOCATIONS MAP
Data : W.T.
Date : August, 1989
Drawn by : Sphinx D.S.
FIG. No. 1

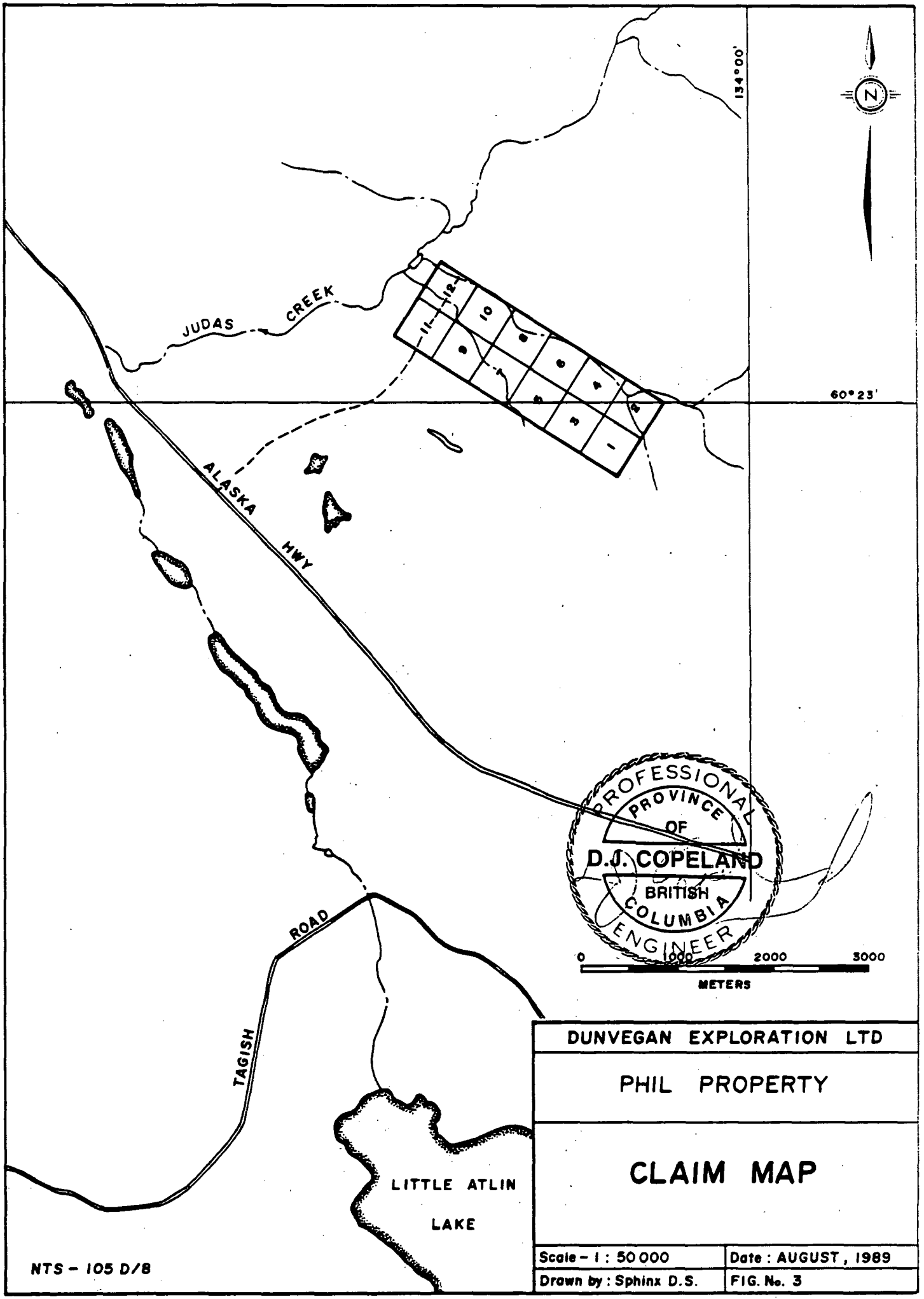


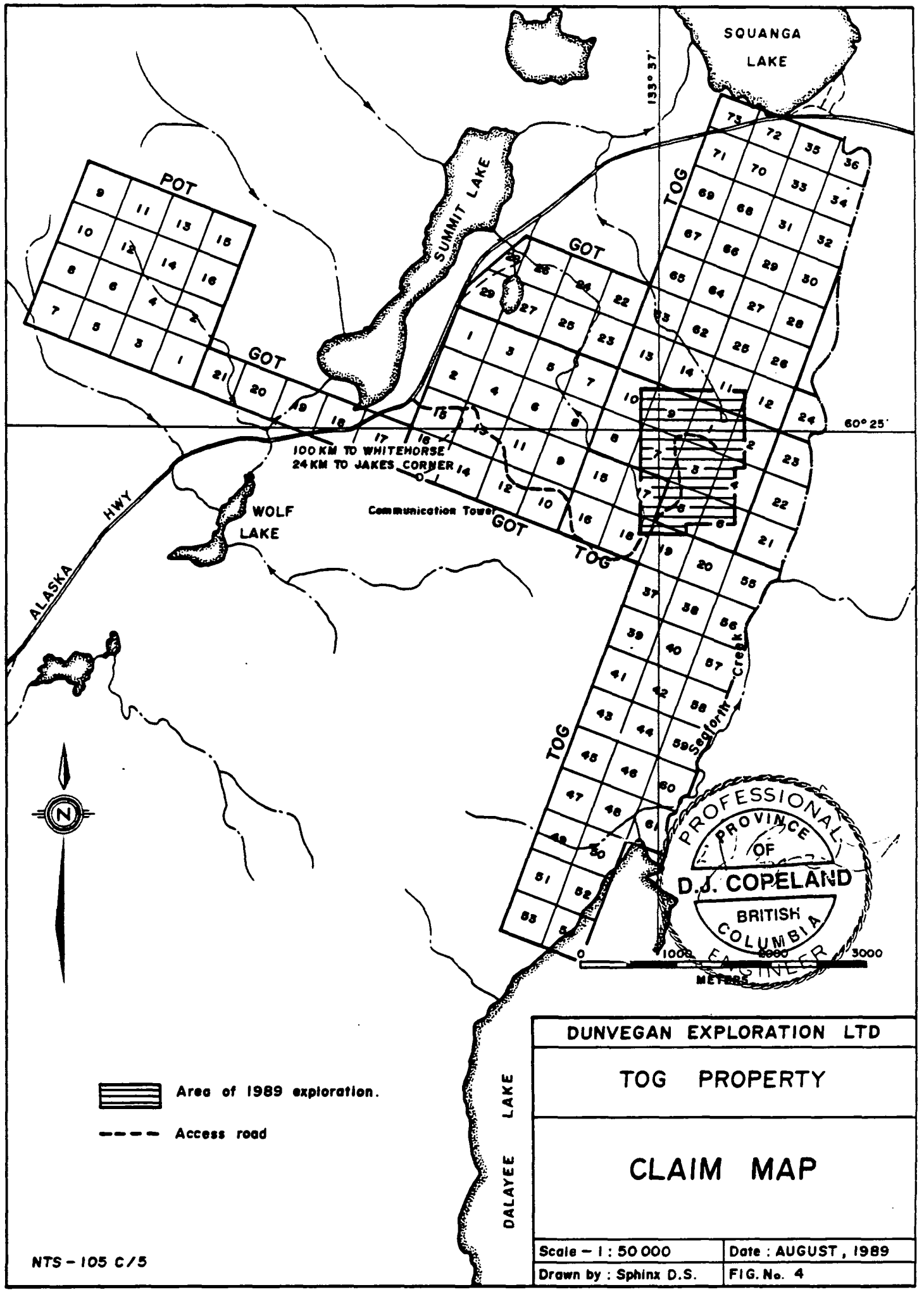
DUNVEGAN EXPLORATION LTD

BUG PROPERTY

CLAIM MAP

Scale - 1 : 50000	Date : AUGUST , 1989
Drawn by : Sphinx D.S.	FIG. No. 2


134°00'
60°23'
JUDAS CREEK
ALASKA HWY
ROAD
TAGISH
LITTLE ATLIN LAKE
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D.J. COPELAND
0 1000 2000 3000
METERS
DUNVEGAN EXPLORATION LTD
PHIL PROPERTY
CLAIM MAP
Scale - 1 : 50 000
Date : AUGUST, 1989
Drawn by : Sphinx D.S.
FIG. No. 3
NTS - 105 D/8


SQUANGA LAKE
133° 37'
SUMMIT LAKE
POT
GOT
TOG
60° 25'
100 KM TO WHITEHORSE
24 KM TO JAKES CORNER
Communication Tower
WOLF LAKE
ALASKA HWY
Segforth Creek
DALAYEE LAKE
PROFESSIONAL ENGINEER
PROVINCE OF
D.J. COPELAND
BRITISH COLUMBIA
0 1000 2000 3000
METERS
N
Area of 1989 exploration.
Access road
NTS - 105 C/5
DUNVEGAN EXPLORATION LTD
TOG PROPERTY
CLAIM MAP
Scale - 1 : 50 000
Date : AUGUST, 1989
Drawn by : Sphinx D.S.
FIG. No. 4

Elevations in the area explored in 1989 on the TOG claims range from 1160 metres in the south to 915 metres in the north. Topography varies throughout the claims but is relativley steep to the south and east of the main showing, flattening towards the marshy lands of Seaforth Creek to the east. Generally the claims are incised by northwest trending creeks. Vegetation is dense on the TOG property, whilst some of the higher ridges have a cover of small shrubs as well jackpine and spruce, much of the claims are covered in dense buckbrush. Jackpine forests predominate in the northern part of the claims towards the highway.

Climate

Southwestern Yukon has a dry subartic climate with warm summers and cold winters. Average annual rainfall is 40cm. The area of the three properties is generally free from snow cover between May and November.

HISTORY

The following is an outline of the history of the three properties using all known and available data to the authors:

The BUG property was originally staked in 1898 as the Cooper Bell claim. This area was restaked as the GNM claims in 1964, and the DYMAX and MINERAL claims in 1966. Between 1964 and 1971, the claims were explored by hand trenching, a 1.5m adit and a 4.6m packsack drill hole. In 1972, two holes totalling 208.9 metres were drilled at the site of the adit through orange-weathering, siliceous, iron carbonate (chrome mica) altered ultramafics, into fractured and altered volcanic rocks. In 1981, G. McLeod (prospector and present director of Dunvegan Exploration Ltd.) reassayed the old drill core which returned assays of 1.6 g/t and 2.0 g/t gold, in the fractured volcanic rock (T. Bremner, DIAND, July 1987 Geological Report). McLeod then restaked the property as the FM and MF claims. Shakwak Exploration Co. Ltd. optioned the property in 1982 and limited geological mapping with a brief magnetometer survey was done. The FM and MF claims were restaked by G. McLeod in 1985 as the BUG 1-4 claims.

Noranda Exploration Co. Ltd. examined the claims in June 1986 (Assessment Report #091860) and three days of prospecting, soil and rock sampling, was conducted by M.P. Webster. The small soil survey revealed an isolated gold/arsenic geochemical anomaly (750 ppbAu/540ppm As). The BUG 5-24 claims were then added to the property on June 28, 1987 by G. McLeod.

In 1987 G. Davidson (P. Geol.) of Whitehorse supervised a trenching and sampling program. Four trenches were excavated by a combination of D8K caterpiller bulldozer work and blasting and an extensive access road system was constructed on the property. Mapping of the trenches was carried out by G. Davidson in June 1987, and trench 1, located in the vicinity of the 750 ppb gold soil anomaly, returned 1790 ppb gold over 0.5m and 500 ppb gold over 4.0m, from brecciated and altered sedimentary rocks containing pyrite. A felsic dyke

returned a value of 1010 ppb gold. (Evaluation Report for Dunvegan Exploration Co. Ltd. by G. Davidson.) During this period T. Bremner (D.I.A.N.D.) spent several days mapping on and near the property, in order to relate the showing to the regional geology. Prominent alteration zones 12 metres wide, forming conspicuous orange cliffs 9 metres high and traceable for at least 2.4 km along strike, were noted by Bremner.

Newmont Exploration of Canada Ltd. re-sampled trench 1 and trench 2 in 1987 and several chip samples of quartz veining, quartz stock work, quartz fault breccia and altered sheared rocks were collected, and anlaysed by neutron activation. Values of up to 992 ppb gold were obtained. J. Turner of Newmont stated that "the sampling on the BUG claims did show elevated values in gold and the property has merit". (Letter to G. McLeod, November 26, 1987.) No option agreement was signed, however. Following this, 25 claim units were added to the BUG claims on behalf of Dunvegan Exploration Ltd. in February 1988. In October 1988, D. Shaw of Resource Research Group made a brief review of available data and suggested that a limited program was required in order to extend the known anomalies and to test for new ones.

The PHIL claims lie on a tributary system of Judas Creek that was originally of interest to placer gold prospectors. (Personal communication - G. McLeod). The claims were staked for G. McLeod in 1987 over an airborne magnetic high (G.S.C. Aeromagnetic Map 1315G) and in May 1987, G. Davidson conducted a brief prospecting and soil sampling survey, which revealed two areas of elevated gold values (510 ppb Au and 242 ppb Au), but these were not continuous along parallel sample lines. One area was resampled in July 1987 but the previous anomalous values from May were not duplicated (Assessment Report G. Davidson 1988).

Work on the TOG claims has been limited to brief property examinations, minor mapping, road construction and cat trenching.

Recorded prospecting on the ground now covered by the claims, dates back to the early 1970's when Gordon McLeod (prospector and present director of Dunvegan Exploration Ltd.), staked claims on a chromite prospect. (McLeod was prospecting for nickel in 1972 and discovered a small pod of chromite within serpentinized ultramafic rocks). Mapping was conducted in 1979 by Archer Cathro & Associates Ltd. who were reportedly looking for asbestos (G. McLeod, personal communication), and that year Michael Marchand, the Whitehorse District Geologist, examined the chromite prospect and conducted a microprobe analysis on the pod which showed the Cr_2O_3 content to be 49.4%. G. Yeo of Noranda Exploration visited the claim area in September 1982 and noted the ultramafic hosted chromite and abundant chrome mica rich outcrops, and stated the gold potential to be 'most interesting', after seeing specks of visible gold in siliceous material. A pipeline corridor restriction curtailed exploration activity during this period. In 1983 a pan sample concentrate collected from Seaforth Creek for G. McLeod was analysed by the Bureau of Mines at the University of Alaska and returned a Fire assay I.C.P. value of 0.700 oz/ton gold (Foley, 1983).

Further prospecting of the area in 1984 revealed a quartz vein within a carbonate altered zone. The following year five pits were sand blasted to expose the area which now is referred to as the TOG showing (G. McLeod, personal communication). In 1985, S.B. Ballantyne of the Geological Survey of Canada examined the property and with an assistant collected quartz, altered chrome-mica ultramafic, and quartz with visible gold. His electron microprobe work showed the gold occuring with silver in the quartz vein material and to be very fine: 939.7 (93.5% Au and 6% Ag). Samples collected returned gold values up to 0.262 oz/ton. Ballantyne noted the vuggy nature of some of the quartz-vein material which was surrounded by broad, pervasive, alteration envelopes of carbonate and he stated that there were strong similarities to the Motherlode district style of mineralization. Trever Bremner, the present Whitehorse District Geologist, also sampled the pits in 1987 and selective grab samples from these pits returned gold values up to 0.244 oz/ton.

Newmont Explorations' sampling of the pits in 1987, returned low gold values, and the area was subsequently opened up by cat trenching to make one large trench. Some 6km of road was put in during this time by Dunvegan Exploration Ltd. to access the main showing.

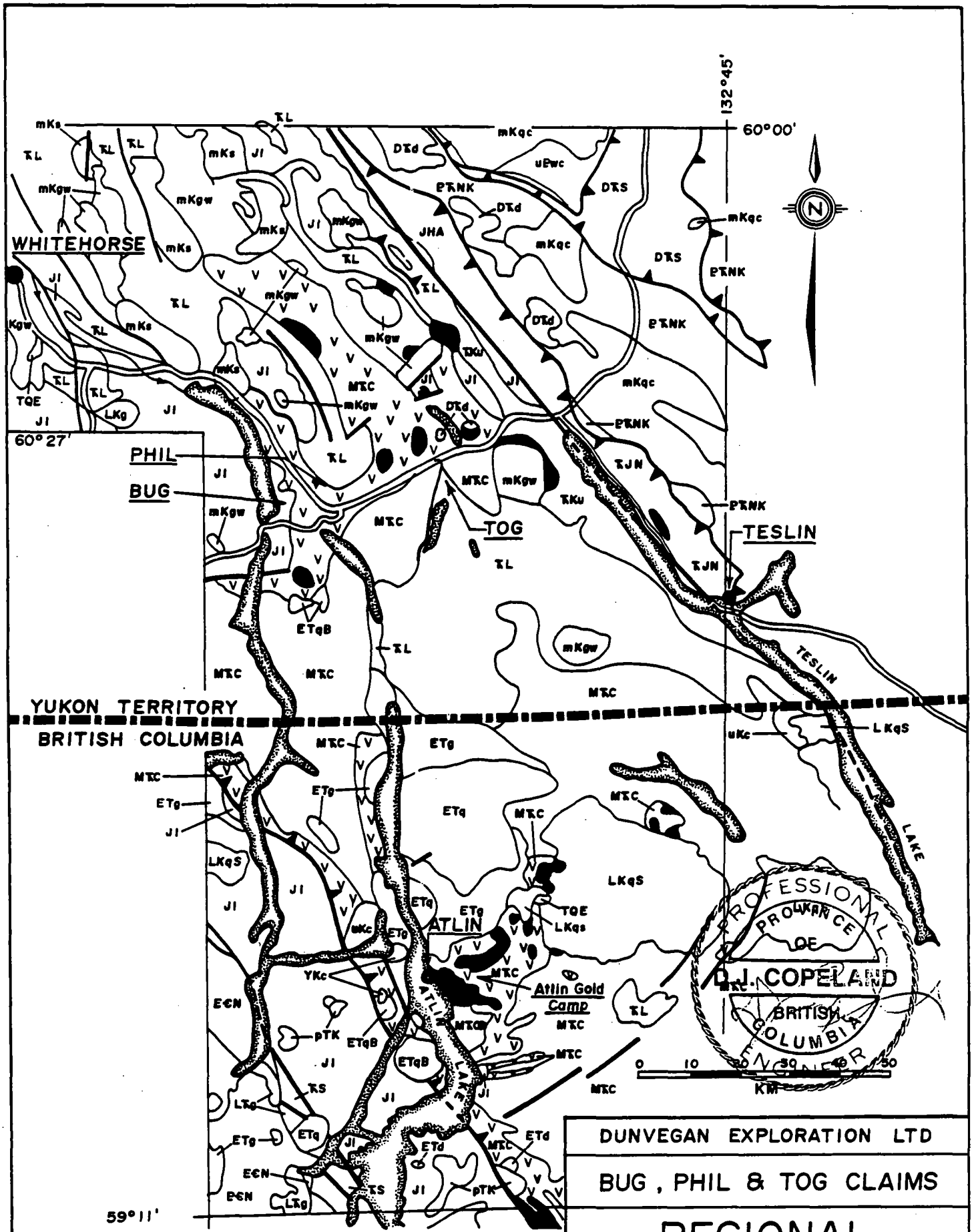
D. Shaw of Resource Research Group was retained by Dunvegan Exploration Ltd. and spent 3 days examining the main trench in October 1988, the purpose of which was to review the showing and outline an exploration and/or development program. The work was hampered by snow cover. A northwest trending, southwest dipping, quartz and iron carbonate alteration zone was mapped. The face observed was 12 meters long and 4 metres wide. A 0.5 metre zone of grey quartz veins, hosting pyrite, malachite and native gold was recognized between white quartz in the hanging wall and black volcanics in the footwall. Selective grab and float samples collected by G. McLeod in the presence of D. Shaw, returned values from 0.039 oz/ton gold to 31.651 oz/ton gold. D. Shaw delineated a number of potential structures using aerial photographs and proposed a preliminary exploration program to outline more prospects and to extend and systematicaly sample the main showing.

GEOLOGY

Regional Geology

The BUG claims straddle a northwest trending, in part tectonic, contact between Lower and Middle Jurassic Inklin clastics to the west of Marsh Lake, and Mississippian to Upper Triassic Cache Creek oceanic volcanics and sediments, to the east (Figure 5). Locally these rocks have been termed the Laberge Group and the Tuku Group (Wheeler, 1951). The Laberge Group consists of greywacke, arkose, quartzite, conglomerate, siltstone argillite and hornfels and the Tuku Group consists mainly of volcanic tholeiitic to alkaline basalts.

The PHIL claims lie south of northwest trending Inklin clastics (Laberge) Group and are fault bounded to the west, by Cache Creek volcanics and to the east, by Upper Triassic Lewes River interarc clastics, believed to be Cache Creek Terrane in part (Wheeler, 1987) (Figure 5).



Modified from: G.S.C. OPEN FILE 1565 "Tectonic Assemblage Map of the Canadian Cordillera" (J.O.Weeler & P.McFeely, 1987)

Note: v = volcanic facies.

DUNVEGAN EXPLORATION LTD

BUG, PHIL & TOG CLAIMS

REGIONAL GEOLOGY

Drawn by: W.T.	Date : AUGUST, 1989
Drafting by: Sphinx D.S.	Fig. No. 5

LEGEND

PLUTONIC AND ULTRAMAFIC ROCKS.

EARLY TERTIARY

ETqB	Bennett:'high level' alaskite
ETg	Granodiorite

LATE CRETACEOUS

LKqs	Surprise lake:Foliated alaskite
LKg	Surprise lake:Granodiorite,quartz monzonite.

MID CRETACEOUS

mKgv	Whitehorse:Granodiorite,diorite,monzonite,leucogranite, and feldspar quartz porphyry dykes.
mKqc	Cassiar:Monzonite and granodiorite(sheared and mylonitized western margins).

LATE TRIASSIC

LTg	Stikine and Coast Range:Diorite,granodiorite,monzonite.

DEVONIAN-TRIASSIC

	Oceanic ultramafic:Dunite,olivine,harzburgite,pyroxenite, commonly serpentinized.
DTd	Diorite,amphibolite.

TERTIARY

pTK	Kamloops volcanics.

LATE UPPER CRETACEOUS

uKc	Carmacks volcanics.

MID CRETACEOUS

mKs	South Fork volcanics 'cauldron subsidence and transtensional arc'.

LOWER AND MIDDLE JURASSIC

JI	Inklin(Laberge Group):Interbedded conglomerate,greywacke, siltstone,shale,limestone.Marine and non-marine.
JIIA	Hall:Carbonaceous shale,siltstone,greywacke,conglomerate, Marine.

UPPER TRIASSIC - LOWER JURASSIC

TJN	Nicola:'Arc volcanics and sediments'.

UPPER TRIASSIC

TL	*Lower River(In part Cache Creek):Breccia,tuff,volcanic* sandstone,siltstone and limestone,locally interbedded with radiolarian chert.Marine 'arc volcanics'.
TKU	Kutcho:Rhyolites,rhyodacites,silicic tuff,basalt,andesite, phyllite,greywacke and limestone.Marine 'arc volcanics' in Cache Creek.Terrane.

MISSISSIPIAN - UPPER TRIASSIC

MTc	Cache Creek:Mainly MORB-like tholeiitic to alkiline basalt (sub-green schist),serpentinized peridotite and dunite,tradhjemite and diabase,melange with blocks of Upper Nicola.Radiolarian ribbon chert,argillite volcanic sandstone and limestone.Marine(Oceanic *volcanics and sediments and local accretionary* prism melange).

UPPER PROTEROZOIC - PALEOZOIC

PtNK	Nisutlin:Cataclastic sediments and volcanics.

DEVONIAN - TRIASSIC

DTs	Slide Mountain:Oceanic marginal basin volcanics and sediments.

UPPER PROTEROZOIC - LOWER CAMBRIAN

PEN	Nisling:Metamorphosed 'passive continental margin' assemblage.

UPPER PROTEROZOIC

u2vc	Windermere:Mainly clastic 'continental margin' sediments.

STRATIGRAPHIC SYMBOLS

- Geological contact.
- Fault of unknown displacement.
- Thrust fault.

LEGEND FOR FIG. No. 5

The TOG claims straddle the boundary between Mississippian to Upper Triassic Cache Creek oceanic volcanics and sediments and Upper Triassic Lewes River interarc clastics. Contacts are at least in part tectonic (Figure 5). Near the claims these rocks have been mapped as volcanic and altered volcanic rocks, with chert, minor argillite and quartzite (Mulligan, 1963). Within 20 kilometres of the TOG claims to the east, is a Mid Cretaceous hornblende granodiorite pluton (Figure 5).

Of significance to all properties are the oceanic ultramafic units of dunites, harzburgites and pyroxenites that occur within the Cache Creek Terrane rocks. These have been well documented in the Atlin Gold Camp of Northwestern British Columbia (Bloodgood et al 1989), (Figure 5). They range from linear bodies many tens of kilometres long, to pods and slivers a few metres in length and it has been suggested that these bodies represent oceanic basement. Many of the gold bearing veins in the Atlin camp are related to these ultramafic rocks.

Figure 5 illustrates the network of tectonic linements throughout the region, the ribbon lakes emphasize this feature in particular and of notable mention is the northwesterly trending Teslin Fault System which may have influenced the setting for gold mineralization in the region. (Ballantyne, 1986)

Property Geology

It should be noted that the numbers allocated to each lithology in Figure 6 and Figure 7 for the BUG and TOG properties, do not assume a chronological sequence (i.e. unit 4 may well be the same age stratigraphically as unit 1).

BUG Claims

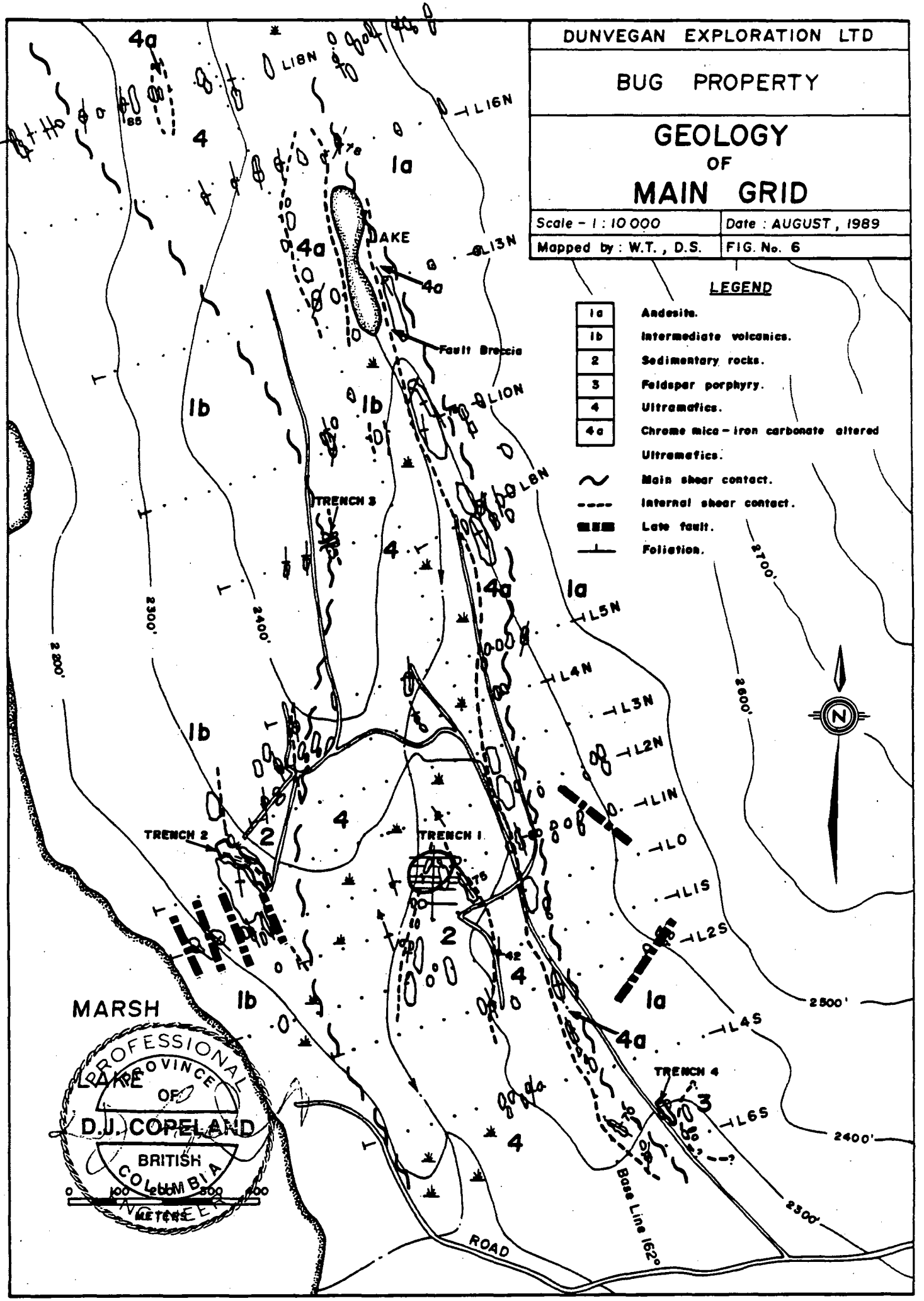
Lithologies

The geology of the area mapped by W. Taylor and D. Shaw is illustrated in Figure 6. The dominant geological trend is north-northwest/south-southwest.

All units are structurally emplaced with vertical to subvertical, sharp tectonic contacts. An exception to this may be the contact between units 1b and 2, where sedimentary rocks and volcanic rocks appear to be intercalated along the western margins of the claims.

Unit 1a

Rocks of unit 1a are comprised of grey, medium grained, andesitic tuffs and flows which contain abundant white plagioclase feldspar phenocrysts. In some areas the rock is sufficiently fine grained to be termed basalt. Outcrops occur in a series of prominent ridges striking NNW which appear to have been formed as a result of block faulting. These rocks are generally massive and lack strong foliation.


DUNVEGAN EXPLORATION LTD
BUG PROPERTY
GEOLOGY
OF
MAIN GRID
Scale - 1 : 10 000
Date : AUGUST, 1989
Mapped by : W.T., D.S.
FIG. No. 6
LEGEND
1a Andesite.
1b Intermediate volcanics.
2 Sedimentary rocks.
3 Feldspar porphyry.
4 Ultramafics.
4a Chrome mica - iron carbonate altered Ultramafics.
Main shear contact.
Internal shear contact.
Late fault.
Foliation.
L16N
L15N
L13N
L10N
L8N
L5N
L4N
L3N
L2N
L1N
L0
L1S
L2S
L4S
L6S
TRENCH 1
TRENCH 2
TRENCH 3
TRENCH 4
Fault Breccia
LAKE
MARSH
LAKE
2700'
2600'
2500'
2400'
2300'
2200'
Base Line 162°
ROAD
N
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D.J. COPELAND
METERS

Unit 1b

Clastic volcanics of unit 1b, occur on the western margin of the property and appear to be more intermediate in composition, than unit 1a. These are mostly tuffaceous, medium to fine grained volcanics that have a green colour due to regional, greenschist facies metamorphism. Unaltered, grey, basaltic material outcrops in the middle of trench 2 (Figure 6) but this may be a later dyke. Unit 1b is defined by prominent ridges and although generally massive in texture, locally there is a strong foliation developed and banding with fine grained, dark grey, shaly material is common.

Unit 2

Unit 2 is composed of clastic rocks which outcrop in two known areas on the property; northeast of trench 2, and the area surrounding trench 1 (Figure 6). In both areas these rocks have structural contacts with the serpentinized peridotite. Unit 2 is predominantly sedimentary with minor intercalated clastic volcanics and is important in that it hosts the gold mineralization near shear contacts associated with quartz-iron carbonate alteration. Northeast of trench 2, graphitic shales, sandstones, grits, cherts, conglomerates, mudstones and minor limestone occur which become progressively sheared toward the contact with the ultramafic rock. At trench 1, the sedimentary rocks are bounded to the west and east by ultramafic rocks (Figure 6). Along the eastern boundary of trench 1, grits and shales exhibit graded bedding with younging to the east (Figure 8), whilst in the middle of the trench, conglomerates do not show the same degree of shearing as in the area northeast of trench 2, but are strongly brecciated and silicified with up to 5% pyrite (Figure 8). Iron carbonate, chrome mica rich rocks surrounding this brecciated conglomerate in trench 1, show strong shear banding and altered volcanic lenses intercalated with the sedimentary rocks often have gouge contacts (Figure 8). Such structures are important channels for the anomalous gold mineralization.

Unit 3

Unit 3 is a medium to coarse grained, feldspar porphyry that outcrops to the northeast of trench 4 (Figure 6). The matrix is grey to buff in colour, and contains subhedral feldspar phenocrysts and irregular shaped quartz crystals. In places it appears tuffaceous and the spatial distribution of this unit is not clearly understood.

Unit 4

Unit 4 is dark green to black peridotite which is variably serpentinized, usually close to fault contacts. Weathered surfaces are orange-brown and pyroxene crystals show a positive relief. In places silica sweats have been exsolved along fractures, giving the appearance of quartz veins.

Alteration

The distinctive alteration of the ultramafic units is a very noticable feature on the BUG property. Unit 4A is a yellowish-green, schistose rock composed of quartz, dolomite, talc, limonite and chrome mica (Figure 6). This type of rock is formed by carbon dioxide rich fluids passing through ultramafic rocks and the term 'Listwaenite', is used by Russian

geologists to describe similar carbonate rocks which occur along the borders of Alpine-type ultramafic massifs (Buisson and Leblanc, 1985). In this report, these rocks have been called chrome mica, iron carbonate altered ultramafics. The alteration zone is up to 50 metres wide and is marked by prominent orange weathered cliffs, continuous over a distance of 2.4 kilometres from 6+00S to 18+00N. This strong alteration feature is open to the south and north of the grid (Figure 6).

A fault breccia borders the eastern edge of the alteration zone, 100 metres east of the baseline near 13+00N, here, light grey, sub-angular fragments occur within a quartz-carbonate matrix, the quartz is often vuggy in form. Chalcedonic textures and crosscutting veinlets of silica may represent a late stage silicification of the altered ultramafics.

White talcose alteration often occurs between peridotites (unit 4) and chrome mica, iron carbonate altered ultramafics (unit 4A) where silica alteration is depleted.

The alteration on either side of the brecciated conglomerate and volcanic lenses in trench 1, suggests shearing has mobilized much of the silica, as chrome mica rich, pyritic rocks are strongly foliated in a north-south direction with lenses of quartz concordent to the fabric. The presence of pyrite within this zone suggests that gold mineralization is nearby, and at Zone B (Figure 6), anomalous gold mineralization is found within rocks of this nature.

TOG Claims

The geology of the TOG property is illustrated in Figure 7. The rock units are divided into four main categories and two main alteration categories. All lithological contacts are thought to be tectonic, however, an exception to this is where cherts (unit 2) may be intercalated with basaltic rocks (unit 1).

Unit 1

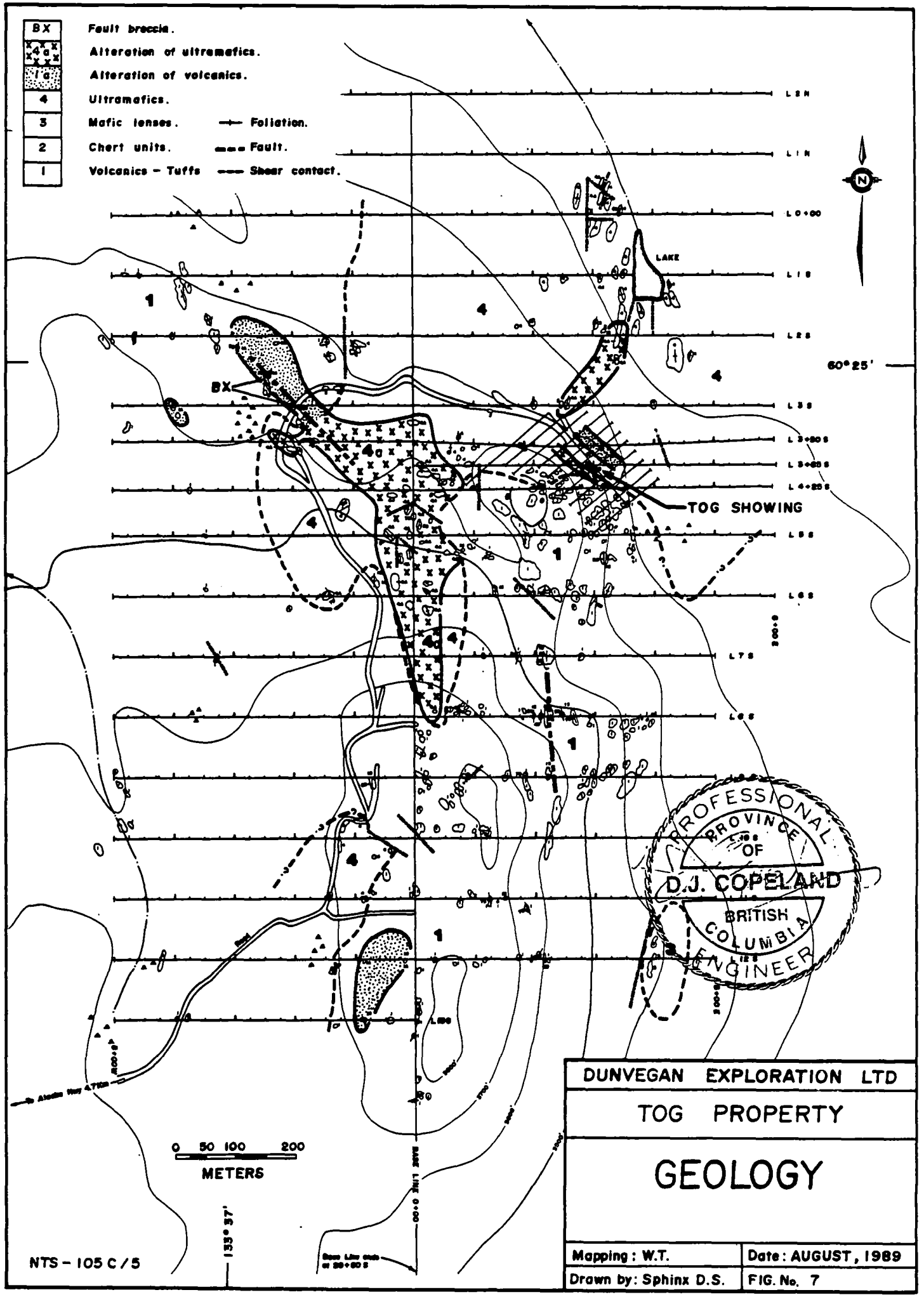
Most of the area is overlain by light green (greenschist facies), fine grained, volcanics. Both tuffs and flows are recognized, with remnant white feldspar crystals evident in the medium grained volcanics. These rocks are generally massive with a well developed conjugate joint fracture system, although in some areas strong foliation has occured, eg. at 8+00S 3+00E, chloritic and talcose foliation is well developed and quartz occurs as boudins and sweats, with elongation parallel to this foliation.

Unit 2

Black, banded cherts occur in localized areas, eg. at 2+00S 3+00E, where a chert subcrop is strongly folded. Elsewhere the cherts often occur as lensoid ribbons or boudins, within volcanics.

Unit 3

Unit 3 consists of mafic lenses of gabbro, diorite and pyroxenite, exhibiting chloritic alteration. Where hornblende crystals can be distinguished, the rock appears dioritic. At 3+00S 1+25E a dioritic rock is strongly pyritized (with cubes of pyrite up to 4mm).


BX
Fault breccia.
Alteration of ultramafics.
Alteration of volcanics.
4
Ultramafics.
3
Mafic lenses.
Foliation.
2
Chert units.
Fault.
1
Volcanics - Tuffs
Shear contact.
BX
TOG SHOWING
LAKE
60°25'
0 50 100 200
METERS
NTS - 105 C/5
133°37'
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D.J. COPELAND
DUNVEGAN EXPLORATION LTD
TOG PROPERTY
GEOLOGY
Mapping : W.T.
Date : AUGUST, 1989
Drawn by: Sphinx D.S.
FIG. No. 7

Unit 4

Peridotites and related ultramafics cover the central portion of the grid and are in close proximity to the main showing (Figure 6). Coarse, crystalline, peridotites occur near the small lake at 1+00S 4+00E where large pyroxene crystals (averaging 0.5cm in diameter) that weather to a brown colour, are contained within a black, fine-grained, groundmass. Adjacent to tectonic contacts, the peridotites are strongly serpentinized, and foliated.

Alteration

The TOG property displays a strong lithological alteration halo (Figure 7) as represented by two alteration types:

(a) 1A - where volcanic rocks and cherts have been carbonatized and show subsequent silica flooding, as seen in the footwall of the main showing where volcanic tuffs have been carbonatized to graphite across a surface width of at least 85 metres and unknown strike length.

(b) 4A - the more extensive chrome mica rich, carbonatization of the ultramafic rocks, that has occured with silicification and sulphide mineralization. This is seen in the hanging wall of the main showing, across a surface width of 10 metres and of undetermined strike length.

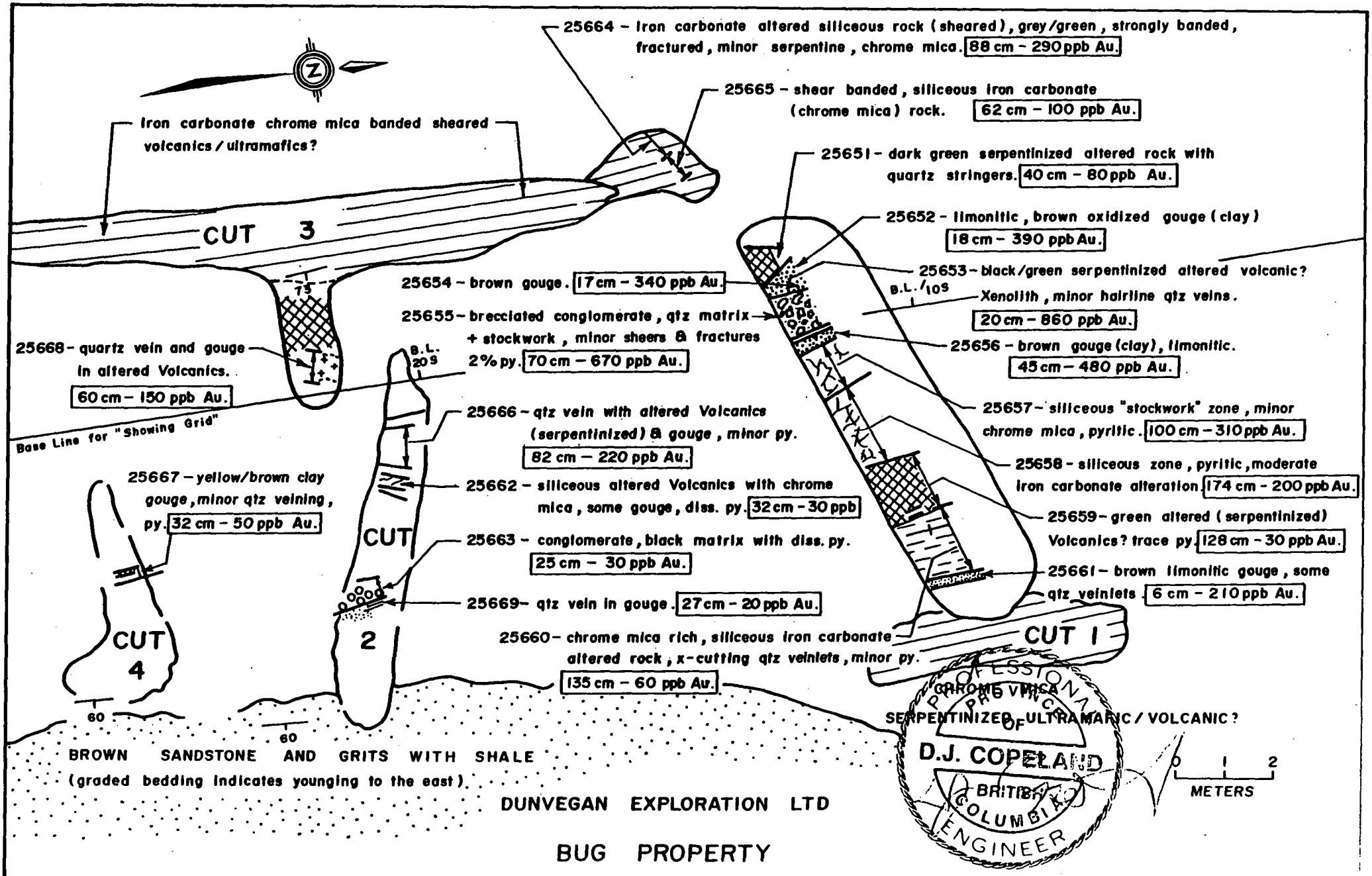
Similar alteration zones can be traced for several hundreds of metres and have a width of at least 150 metres (Figure 7). The outline of these zones is less well defined than on the BUG property, because of the more complex structural setting, and the lack of outcrop on much of the grid. In addition a northwest striking, silicified fault breccia zone, between altered serpentinites to the south, and altered volcanics and cherts to the north, hosts angular chert and volcanic fragments within a silica flooded matrix. This zone can be traced along strike for 75 metres, crosses the road at 3+00S 2+00W and is parallel to the northwest trending structure hosting the gold mineralization at the showing.

MINERALIZATION

Mineralization on both the BUG and TOG properties occurs adjacent to bounding structures associated with tectonically emplaced ultramafic bodies that have been carbonatized and locally enriched in silica. The mineralized veins appear to be strongly structurally controlled by faults and/or shears (S.B. Ballantyne, written communication, August 18, 1989 in appendix).

BUG Property

The mineralization on the BUG property is hosted by a wedge of intercalated sediments and volcanics within the main shear structure (Figure 6). It is these rocks exposed in trench 1, which are silica rich and are consistantly anomalous in gold over a surface width in excess of 11 metres (Figure 8). Altered volcanic and shear banded, chrome mica-iron carbonate



SYSTEMATIC CHIP SAMPLING OF TRENCH 1 (SHOWING)

Sampling by: W.T., M.M. Date: AUGUST, 1989

Scale - 1:100 Drawn by: Sphinx Drafting Services

FIG. 8

TABLE 2
ASSAY RESULTS AND SAMPLE DESCRIPTIONS BUG PROPERTY TRENCH #1

Date	Location	Sample No.	Width	Description	Au (ppb) unless indicated in oz/ST	Remarks
3/7/89	Cut 1	25651	40cm chip	Serpentinized, dark green volcanic/ultramafic. Quartz stringers.	80	1042 ppm As
3/7/89	Cut 1	25652	18cm chip	Limonitic brown oxidized clay rich gouge.	390	0.6 ppm Ag 781 ppm As
3/7/89	Cut 1	25653	20cm chip	Volcanic xenolith, serpentinized black/green colour. Hairline quartz veins.	860	1.1 ppm Ag 452 ppm As 115 ppm Zn
3/7/89	Cut 1	25654	17cm chip	Brown gouge, clay rich.	340	0.6 ppm Ag 374 ppm As
3/7/89	Cut 1	25655	70cm chip	Brecciated conglomerate quartz matrix and stockwork. Minor shears and fractures. 2% py.	670	1.2 ppm Ag 594 ppm As
3/7/89	Cut 1	25656	45cm chip	Tan/brown gouge, limontic/clay.	480	
3/7/89	Cut 1	25657	100cm chip	Siliceous 'stockwork' zone. Minor chrome mica, py.	310	1.1 ppm Ag
3/7/89	Cut 1	25658	174cm chip	Siliceous zone, moderate iron carbonate alteration, py.	200	0.6 ppm Ag
3/7/89	Cut 1	25659	128cm chip	Green, altered (serpentinized) volcanic, trace py.	30	0.4 ppm Ag 1188 ppm As
3/7/89	Cut 1	25660	135cm chip	Chrome mica rich, siliceous iron carbonate altered rock. X-cutting quartz veinlets, minor py.	60	1.1 ppm Ag 1005 ppm As
3/7/89	Cut 1	25661	6cm chip	Brown limonitic gouge. Some quartz veinlets.	210	0.6 ppm Ag 1046 ppm As
3/7/89	Cut 2	25662	32cm chip	Siliceous altered volcanic with chrome mica. Some gouge. Diss py.	30	1.1 ppm Ag 724 ppm As
3/7/89	Cut 2	25663	25cm chip	Conglomerate. Black matrix with diss py.	30	0.6 ppm Ag
3/7/89	West end of Cut 1	25664	88cm chip	Iron carbonate altered siliceous volcanic/ultramafic. Sheared and fractured. Minor serpentine, chrome-mica.	290	1.2 ppm Ag
3/7/89	West end of Cut 1	25665	62cm chip	Shear-banded, siliceous iron carbonate (chrome mica). Volcanic?	100	2.6 ppm Ag 1062 ppm As
3/7/89	West end of Cut 2	25666	82cm chip	Quartz vein with altered volcanic (serpentinized) and gouge. Minor py.	220	1.1 ppm Ag
3/7/89	Cut 4	25667	32cm chip	Gouge, yellow/brown colour. Clay rich, minor quartz veining, py.	50	
3/7/89	Cut 3	25668	60cm chip	Quartz vein and gouge in altered volcanic.	150	
3/7/89	Cut 2 east of 25663	25669	27cm chip	Quartz vein in gouge.	20	
3/7/89		25680	Blasted Float fist size	Brecciated conglomerate. Black matrix, volcanic clasts (intermediate compostion). Cross-cutting quartz veinlets. Abundant py along fractures and coating, quartz flooded fragments.	1030	1.2 ppm Ag 912 ppm As
3/7/89		25681	Blasted Float	Same as 25680	0.010 oz/ST.	
3/7/89		25682	Blasted Float	Black volcanic breccia. Siliceous rounded volcanic/ quartzile fragments abundant py.	580	1.4 ppm Ag 667 ppm As

TABLE 2
ASSAY RESULTS AND SAMPLE DESCRIPTIONS BUG PROPERTY TRENCH #1 (Cont'd)

Date	Location	Sample No.	Width	Description	Au (ppb)	Remarks
3/7/89		25683	Blasted Float	Quartz vein - white/grey colour. Chlorite/limonite/ /clay alteration. Volcanic remnants. Fine diss py.	0.005 oz/ST.	
3/7/89		25684	Blasted Float	Siliceous, black/volcanic/ ultramafic. Chrome mica & epidote alteration. Black/ grey/green colour, py.	60	818 ppm As
3/7/89		25685	Blasted Float	Brecciated quartz conglomerate. clasts up to 4cm. Matrix poor (black) with abundant py.	590	1.2 ppm Ag 558 ppm As
3/7/89		25686	Blasted Float	Siliceous, clay altered volcanic - grey/yellow colour. Diss py.	180	
9/7/89		25693	Blasted Float 75cm chip taken 90° to elongation of fragments.	Brecciated conglomerate, black matrix, volcanic clasts (intermediate composition). Very siliceous, quartz veinlets. Abundant py.	0.02 oz/ST.	
9/7/89	28W 60S (small grid)	25694	45cm chip (Subcrop)	Brecciated altered ultramafic. Chrome mica and chlorite alteration. Silicified with py.	100	530 ppm As
3/8/89		25862	Blasted Float	Brecciated conglomerate. Dark green matrix. Light grey siliceous fragments, slightly serpentinized. Quartz veinlets. Diss py mostly in matrix.	740	
3/8/89		25863	Blasted Float	Same as 25863 with more silica veinlets. Crosscutting the fabric.	940	

TABLE 3
ASSAY RESULTS AND SAMPLE DESCRIPTIONS BUG PROPERTY ZONE B

Date	Location	Sample No.	Width	Description	Au (ppb)	Remarks
9/7/89	26W 60S Zone B	25695	Selective Grab (Subcrop)	Quartz flooded, grey/white/tan coloured altered ultramafic. Chrome mica/epidote py.	810	225 ppm As
9/7/89	28W 56S Zone B	25696	Selective Grab (Subcrop)	Silica rich, altered ultramafic. Chrome mica. Minor py.	100	269 ppm As
9/7/89	32W 60S Zone B	25697	Selective Grab (Subcrop)	Silica rich altered ultramafic, strongly foliated. Chrome mica/chlorite & minor py.	370	571 ppm As

material is weakly pyritic and also anomalous. The highest gold anomalies occur within a silica flooded, brecciated conglomerate which returned assay values up to 1030 ppb gold, in contrast to a gold background level of less than 20 ppb on samples taken from the three other trenches on the property (Figure 6). Where the gold values are found to be anomalous it is generally the case that arsenic and silver values are also anomalous (Table 2 and 3). Visible sulphides, other than pyrite, are rare.

Three selective grab samples of pyritic, silica rich, iron carbonate altered, ultramafic rocks from a subcrop location; Zone B (Figure 6), 50 meters along strike and southwest of trench 1, all returned anomalous gold values of up to 810 ppb (Table 3). A northeasterly trending lineament that lies parallel to, and in the vicinity of the two zones was detailed by geophysical (VLF) surveying (Figure 12).

TOG Property

A zone of sheared, massive quartz veining and quartz-carbonate alteration occurs at the faulted contact between a sequence of volcanic tuffs and cherts (footwall) with ultramafic rocks (hangingwall). The zone strikes northwest/southeast and dips towards the southwest at 45 degrees; in the area of the showing it attains a width of 8 metres with pervasive pyritic silicification extending at least another 2 metres into the hanging wall to the southwest. The massive quartz vein is structurally below the zone of quartz-carbonate chrome mica alteration and has been segmented by numeous through-going shear fractures, the majority of which are graphitic. These fractures are the structural host for coarse, visible gold mineralization in association with malachite, azurite, pyrite, galena and sphalerite.

Visible gold was recognized in thirteen samples over a strike length of 26 metres and across a true width of 5 metres. Assay values up to 41.482 oz./ton gold were recorded from selected grab samples and up to 2.119 oz./ton gold over 0.46 metres from chip samples (Figure 9, Table 4). It should be noted that many of the samples that returned high values of gold were also highly anomalous with regard to silver content, with values greater than 50 ppm (beyond detection limit of assaying equipment). Whilst individual widths over which the visible gold mineralization occurs is not large, there is a consistency to the occurrence of gold along the exposed strike length of the structure (Figure 9). In addition the visible gold mineralization is not limited to one shear fracture within the main zone; there are in excess of 8 individual mineralized graphitic, shear fractures over a true width of 5 metres (Figure 9). The very high grade gold values have been obtained where shear fractures are in contact (either hangingwall or footwall), with a massive, buff weathered, calc-silicate unit containing disseminated pyrite and chrome mica (Figure 9). This unit is possibly a highly altered dyke that has been sheared into the main vein structure. It attains widths up to 0.5 metres and is seen within at least four structural horizons (Figure 9).

Aside from the 26 metres of high grade visible gold mineralization defined, the continuation of this gold mineralization is still untested along strike because bedrock is covered by a light layer of soil and blasted rock debris.

Quartz vein subcrop has been mapped 40 metres to the southeast of the main showing and in excess of 80 metres to the northwest to give a strike length minimum of 120 metres (Figure 13). The zone of carbonatization on surface is estimated to be at least 85 metres wide and that silicification is at least 10 metres wide within this zone.

There is thus, definite potential to extend the zone along strike, in both directions, and down dip. Furthermore in the area of the showing, VLF conductors have been correlated with graphitic horizons which are conformable with the mineralized horizon and can be traced along strike over 140 metres (Figure 13).

NOTE : Distances in sketch have been slope corrected and the widths will appear to be narrower than true widths (see table 4 for true widths).

Average dip of veins = 45° to SW.

FOOT WALL SHEARED GRAPHITIC VOLCANIC TUFF

HANGING WALL ALTERATION ZONE

3+85S 2+98E

25m NW

6m

10m SW (050°)

12m SE (140°)

25631 25820 25630 25854 25853 0.158 25852 1.920 25851 41.482 25747 2.161 25629 4.392 25855 Qtz 10.182 RC-89003 0.564 25859 0.405 25856 25857 0.094 0.324 IG 25858 7.503 RC-89002 25821 1.412 25726 4At 25727 4A 25633 Qtz IG 25728 4Apy 25729 4A 25730 Sigmoidal fabric of Chrome mica

RC-89001 1.189 IG2 0.155 25621 25864 IG 25622 25623 25624 25617 25625 25627 25626 25746 Qtz 0.043 2.119 25628 0.074 25745 0.192 25613 25744 25644 4At 25732 4SAt 25731 4SAt

4.718 25860 25615 IG2 0.184 25861 25614 0.066 25643 25736 25738 34 Qtz. 25632 Qtz. 25733 25734 (1160 ppb) Qtz. 25601 25602 25603 25619 25620 25618 25739 25740 25737 25822 25604 25605 25606 25607 25608 25609 0.087 25610 25611 25612 Qtz 25742 25743 0.192

SELECTIVE BLASTED FLOAT SAMPLES	
SAMPLE No.	Au OZ/ST
25701	0.719
25702	0.377
25703	0.220
25704	0.335
25705	0.554
25706	8800 ppb
25637	2600 ppb

LEGEND

- 4 — Ultramafics
- 4A — Altered Ultramafics: iron carbonate, silica and chrome-mica rich.
- 4Apy — Altered Ultramafics: as above with 2% py.
- 4At — Altered Utramafics: iron carbonate and talc rich.
- 4SAt — Moderate serpentinite/talc/silica alteration.
- Massive, buff weathered, calc-silicate unit with diss. pyrite and chrome-mica.
- IG — Sheared, graphitic, black volcanic tuff.
- IG2 — Sheared, graphitic, black volcanic tuff with chert lenses and boudins.
- Qtz — Quartz vein. (All contacts drawn are graphitic shears or gouge contacts).
- Gouge (clay, limonite).
- Fracturing in quartz vein.
- Graphitic zones in quartz.
- Dip of structural contacts.

25855 — Visible gold samples.

4.392 — Gold value in ounces per standard ton.

25855 — Sample No.

Area where bedrock is visible.

For complete sample description see table 4.

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA D.J. COPELAND

1 2 3 4 5 6 METERS

DUNVEGAN EXPLORATION LTD	
TOG PROPERTY	
SYSTEMATIC ROCK SAMPLING OF TOG (McLEOD) SHOWING WITH GOLD VALUES	
Scale - 1 : 100	Date : AUGUST, 1989
Mapping : W.T.	FIG. No. 9

TABLE 4
ASSAY RESULTS AND SAMPLE DESCRIPTIONS TOG PROPERTY SHOWING

Date	Location	Sample No.	Width	Description	Au (oz/ST) unless indicated in ppb	Remarks
31/7/89		25701	Blasted Float	Quartz vein, graphitic, vuggy, Dogtooth quartz crystal intergrowth. Gal, mal, az, cpy.	0.719	VISIBLE GOLD 49.1 ppm Ag 3447 ppm Cu >20,000 ppm Pb 5610 ppm Zn 1512 ppm Sb 434 ppm Cd
31/7/89		25702	Blasted Float	Quartz vein, graphitic, Dogtooth quartz crystal intergrowth. Gal, mal, az, cpy. Reassayed	10000 ppb 0.377	VISIBLE GOLD >50.0 ppm Ag 88.1 ppm Cd 4031 ppm Cu 5788 ppm Pb 10548 ppm Zn 1524 ppm Sb
31/7/89		25703	Blasted Float	Quartz vein, graphitic, cpy, gal, py, mal, az.	0.220	50 ppm Ag 1349 ppm Cu 687 ppm Pb 950 ppm Zn
31/7/89		25704	Blasted Float	Same as 25703. Reassayed	10,000 ppb 0.335	>50.0 ppm Ag 24.2 ppm Cd 1670 ppm Cu 544 ppm Pb 1696 ppm Zn 190 ppm Sb
31/7/89		25705	Blasted Float	Quartz vein with 2-5% mal, az, 1% gal, cpy, py.	0.554	>50 ppm Ag 3547 ppm Cu >20,000 ppm Pb 1615 ppm Zn 1554 ppm Sb 32.2 ppm Cd
31/7/89		25706	Blasted Float	sames as 25705	8800 ppb	>50.0 ppm Ag 259 ppm As 38.9 ppm Cd 4351 ppm Cu 12964 ppm Pb 1767 ppm Zn 1221 ppm Sb
31/7/89		25707	Blasted Float	Bull Quartz. Some Limonite, trace py, cpy.	0.005	3.4 ppm Ag 127 ppm Cu 430 ppm Pb 726 ppm Zn
31/7/89		25708	Blasted Float	Same as 25707.	30 ppb	
1/8/89	10SW 33NW	25725	Grab	Siliceous chrome mica iron carbonate, diss py.	20 ppb	
1/8/89	5SW 22NW	25726	Grab	Sheared chrome mica iron carbonate rock. Serpentine, talc-epidote alteration.	n.d.	
1/8/89	7SW 15NW	25727	Grab	Iron carbonate altered ultramafic, talc, quartz banding, minor chrome mica. Light green colour.	n.d.	
1/8/89	6.5SW 10NW	25728	Grab	Very siliceous chrome mica rich iron carbonate. Diss py. Light green colour.	n.d.	
1/8/89	6.5SW 8NW	25729	Grab	Siliceous chrome mica rich iron carbonate, grey/green colour. Diss py.	n.d.	
1/8/89	7.5SW 8NW	25730	Grab	Siliceous iron carbonate, some foliation.	n.d.	
1/8/89	14SW 5NW	25731	Grab	Serpentinite above altered hanging wall.	20 ppb	
1/8/89	11SW 3NW	25732	Grab	Sheared serpentinite some talc.	n.d.	

TABLE 4
ASSAY RESULTS AND SAMPLE DESCRIPTIONS TOG PROPERTY SHOWING (Cont'd)

Date	Location	Sample No.	Width	Description	Au (oz/ST)	Remarks
1/8/89	B.L. 8SE	25733	Grab (30 cm)	Massive volcanic (footwall of Quartz veins). Fractured with quartz veinlets, cpy, py in fractures. diss py up to 5%.	40 ppb	
1/8/89	B.L. 8SE	25734	Selective Grab	Quartz vein with limonitic weathered out py. (H.W. of 25733)	1160 ppb	6.8 ppm Ag 1511 ppm Pb 580 ppm Zn 210 ppm Cu
1/8/89	10.5SW 14-5SE	25735	Grab	Serpentinized ultramafic.	n.d.	
2/8/89	B.L. 1.25SE	25736	Chip 11 cm	Quartz vein, dogtooth crystal intergrowth. Gal, trace mal.	0.120	28.7 ppm Ag 395 ppm cu 1529 ppm Pb 476 ppm Zn
2/8/89	0.75NE 2SE (1m ESE of 25736)	25737	7cm chip	Quartz vein. Same as 27536 but more massive and more mal.	0.033	31.5 ppm Ag 283 ppm Cu 1468 ppm Pb 1260 ppm Zn
2/8/89	1.2NE 3SE	25738	5cm chip	Quartz vein, py, gal, sph. H.W. of massive cal silicate horizon.	0.005	
2/8/89	1NW 1SW	25739	13cm chip	Quartz vein dogtooth crystal intergrowth. Graphitic banding. Gal, mal, az, py, lim.	0.005	
2/8/89	1SW 1.9NW	25740	6cm chip	Quartz vein in F.W. of massive calc silicate abundant gal, some py minor mal.	0.006	
2/8/89	45cm ESE of 25616	25741	27cm chip	Quartz vein graphitic bands. Py, mal in-between 2 lenses of massive volcanic.	0.009	
2/8/89	30 cm SW of 25741	25742	14cm chip	Quartz vein graphitic bands. Very coarse gal, py, mal. cpy.	0.005	
2/8/89	3.75SW 1.3NW	25743	16cm chip	Quartz vein - fractured vuggy. Coarse gal, mal, py.	0.192	> 50 ppm Ag 1271 ppm Cu > 20,000 ppm Pb 183 ppm Sb 939 ppm Zn
2/8/89	B.L. 5.3 SW	25744	Selective grab	Quartz vein near iron carbonate hanging wall. Lim, py?	0.005	
2/8/89	40cm WNW of 25626	25745	18cm chip	Quartz vein, graphitic bands. Au, mal, py, gal, cpy. Massive calc silicate in F.W.	n.d.	COARSE, VISIBLE GOLD. 9.8 ppm Ag 228 ppm Cu 1586 ppm Pb 1332 ppm Zn
2/8/89	9NW 3.75SW (220cm NW of 25745)	25746	20cm chip	Quartz vein abundant gal. some py.	0.005	3.5 ppm Ag 61.8 ppm Cd 773 ppm Pb 7655 ppm Zn 808 ppm Sb
2/8/89	17NW 3SW (0.5m NNW of 25629)	25747	Selective grab of equi-dimensional block 8cm wide x 8cm x 8cm.	Quartz vein with graphitic banding sheared volcanics in H.W., pyritic calc silicate in F.W.	41.482	COARSE, VISIBLE GOLD. > 50 ppm Ag 7128 ppm Pb 3938 ppm Zn
2/8/89		25749	Blasted Float	Highly siliceous - serpentinized rock. Black/light green colour. Large py cubes.	n.d.	

TABLE 4
ASSAY RESULTS AND SAMPLE DESCRIPTIONS TOG PROPERTY SHOWING (Cont'd)

Date	Location	Sample No.	Width	Description	Au (oz/ST)	Remarks
13/7/89	B.L. 0.10SW Line 0	25601	10cm chip	Quartz vein. Grey colour, with py.	0.005	6.1 ppm Ag 259 ppm Cu 682 ppm Pb 377 ppm Zn
13/7/89	0.20 0.48SW Line 0	25602	28cm chip	Massive calc silicate unit.	0.005	1.5 ppm Ag 266 ppm As 139 ppm Cu 185 ppm Pb 433 ppm Zn
3/7/89	0.50 0.58SW Line 0	25603	8cm chip	Quartz vein stockwork of veinlets py minor az, mal.	0.001	
3/7/89	0.58 1.00SW Line 0	25604	36cm chip	Black sheared volcanics/gouge & quartz veinlets striking NNW.	0.005	1.6 ppm Ag 240 ppm As 242 ppm Zn
3/7/89	1.00 1.40SW Line 0	25605	70cm chip	Quartz vein,minor graphitic bands and lenses.	0.005	
13/7/89	1.40 1.80SW Line 0	25606	36cm chip	Quartz vein - grey stock - work of veinlets with py.	0.005	
13/7/89	1.80 2.60SW Line 0	25607	120cm chip	Quartz vein. Fractured graphitic banding across 25cm of sample.	0.005	
13/7/89	2.60 3.45 Line 0	25608	100cm chip	Quartz vein (bull).	0.006	
13/7/89	3.45 3.60 Line 0	25609	29cm chip	Orange sandy gouge, some black volcanics.	0.087	3.2 ppm Ag 108 ppm Cu 427 ppm Pb 10.1 ppm Cd 2022 ppm Zn
13/7/89	3.60 4.75SW Line 0	25610	125cm chip	Quartz vein. Fractured cemented gouge. py.	0.008	1.2 ppm Ag 111 ppm Pb 141 ppm Zn
13/7/89	4.75 5.43SW Line 0	25611	67cm chip	Quartz vein. Fractured. Some graphitic banding.	0.005	
13/7/89	5.43 5.65SW Line 0	25612	50cm chip	Green, orange, yellow sandy gouge.	0.005	
13/7/89	4NW 5.5SW	25613	160cm chip	Highly siliceous iron carbonate altered ultramafic with chrome mica. Diss py.	0.005	
13/7/89	2m East of B.L. and Line 0	25614	116cm chip	Sheared graphitic black volcanic - quartz veinlets py.	0.013	
13/7/89	East of 25614 (in contact with)	25615	130cm chip	Sheared graphitic black volcanic. Quartz veinlets with py.	0.005	5.5 ppm Ag 126 ppm Cu 647 ppm Pb 291 ppm As 417 ppm Zn
13/7/89	2SW 2NW	25616	10cm chip	Quartz vein with graphitic banding. Au, py, az, mal. Sinuous vein with massive calc silicate in F.W. and sheared volcanic in H.W.	0.028	VISIBLE GOLD. 2.2 ppm Ag 2271 ppm Zn 309 ppm Pb 15.1 ppb Cd
		25864		Reassayed	0.155	
15/7/89	1m west of 25616	25617	20cm chip	Quartz vein. Az, mal, py, gal. Sheared volcanics in H.W. massive calc silicate in F.W.	0.043	25.9 ppm Ag 410 ppm Cu 3396 ppm Pb 405 ppm Zn
15/7/89	0.5 NE of 25616	25618	26cm chip	Quartz vein, near sheared volcanics, some yellow gouge Minor py.	0.01	17.5 ppm Ag 238 ppm As 560 ppm Pb 658 ppm Zn 171 ppm Cu

TABLE 4
ASSAY RESULTS AND SAMPLE DESCRIPTIONS TOG PROPERTY SHOWING (Cont'd)

Date	Location	Sample No.	Width	Description	Au (oz/ST)	Remarks
15/7/89	2.5NW 1.05SW	25619	9cm chip	Quartz vein. Py, gal, cpy, sph. Dip 350SW	0.005	10.8 ppm Ag 17.8 ppm Cd 1617 ppm Pb 3520 ppm Zn
15/7/89	Between 25618 and 25619	25620	25cm chip	Massive calc silicate elongate mafic crystals, epidote bleached. Diss py.	0.005	0.8 ppm Ag 136 ppm Pb 889 ppm Zn 254 ppm As
15/7/89	Between 25616 and 25618	25621	20cm chip	Massive calc silicate unit micro veinlets of quartz in fractures. py up to 5%.	0.01	1.6 ppm Ag 295 ppm As 166 ppm Pb 653 ppm Zn
15/7/89	Hanging wall above 25616	25622	22cm chip	Hanging wall, black, sheared, graphitic volcanics. Yellow sulphur staining.	0.005	1.3 ppm Ag 210 ppm Pb 460 ppm Zn
15/7/89	Hanging wall above 25622	25623	6cm chip	Quartz vein. Gal, py. Massive calc silicate in H.W. Sheared volcanics in F.W.	0.006	6.8 ppm Ag 1034 ppm Pb 162 ppm Zn
15/7/89	Footwall of 25617	25624	20cm chip	Iron carbonate altered ultramafic, silica flooded. Abundant py.	0.031	19.2 ppm Ag 600 ppm Cu 3339 ppm Pb 1368 ppm Zn
15/7/89	3NW 3SW	25625	100cm chip	Sheared black volcanics (H.W. of vein) Minor quartz veinlets with minor py.	0.005	0.9 ppm Ag 193 ppm Zn
15/7/89	7NW 4SW	25626	46cm chip	Quartz vein. Gal, py, mal, az. Sulphides more enriched near massive calc silicate F.W.	2.119	VISIBLE GOLD. 38.9 ppm Ag 18.6 ppm Cd 998 ppm Cu 5983 ppm Pb 1837 ppm Zn
15/7/89	2m SE OF 25626	25627	23cm chip	Quartz vein. Mal, az, minor py. Massive calc silicate in F.W. bull quartz in H.W.	0.076	14.9 ppm Ag 523 ppm Cu 2326 ppm Pb 2333 ppm Zn
15/7/89	160cm SE from 25627	25628	60cm chip	Quartz vein. Fractured and powdery. Mal and az. Massive calc silicate in F.W., gouge and bull quartz in H.W.	0.074	3.7 ppm Ag 365 ppm Pb 244 ppm Zn
15/7/89	16NW 3SW	25629	20cm chip	Quartz vein. Au, cpy, py, az, mal. Massive calc silicate footwall.	2.161	VISIBLE GOLD. 24.5 ppm Ag 421 ppm Cu 8004 ppm Pb 5496 ppm Zn 29.9 ppm Cd
17/7/89	22NW 1.1NE	25630	27cm chip	Quartz vein, graphitic. Mal, az, py, cpy bands. Massive calc silicate footwall.	0.011	0.7 ppm Ag 177 ppm Pb 115 ppm Zn
17/7/89	22NW 1.5NE	25631	38cm chip	Quartz vein with some gouge some massive calc silicate. Minor py, mal?	0.006	0.8 ppm Ag 711 ppm Ni 101 ppm Zn
17/7/89	3.7SE 2NE	25632	10cm chip	Quartz vein. Mal, az, py, gal. Massive calc silicate in F.W.	0.006	VISIBLE GOLD. 26.9 ppm Ag 136 ppm Cu 3609 ppm Pb
17/7/89	5.5SW 11NW	25633	55cm chip	Quartz vein, grey/white. Limonitic clusters.	0.005	

TABLE 4
ASSAY RESULTS AND SAMPLE DESCRIPTIONS TOG PROPERTY SHOWING (Cont'd)

Date	Location	Sample No.	Width	Description	Au (oz/ST)	Remarks
30/7/89		25637	Blasted Float	Quartz vein - fractured graphitic banding. Py, mal, az, tetra?	2600 ppb	> 50.0 ppm Ag 694 ppm Cu 189 ppm Zn
30/7/89		25638	Blasted Float	Very siliceous iron carbonate chrome mica altered ultramafic 'Stockwork' of quartz veinlets. Py.	6 ppb	1.3 Ag 1173 As
30/7/89		25639	Blasted Float	Same as 25638	0.005	
30/7/89		25640	Blasted Float	Other half of 25639.	10 ppb	1 ppm Ag 651 ppm As
30/7/89		25641	Blasted Float	Quartz vein with graphitic banding fractured. Py, mal, az, tetra?	0.030	
30/7/89		25642	Blasted Float	Quartz vein with graphitic banding, limonitic clusters, vuggy cavities mal.	0.012	
30/7/89	B.L. Line 0	25643	Selective Grab	Massive calc silicate unit. Lath like mafic crystals. Fractured and bleached light green. Veinlets of quartz in fractures with py and cpy. Diss py. Buff colour weathering.	0.066	
30/7/89	7.5SW 3NW	25644	Grab	Talc/serpentine altered ultramafic. Moderately siliceous. Foliated.	20 ppb	0.9 ppm Ag 361 ppm As
3/8/89	18.1NW 1.65W	25851	Selective Grab	Quartz vein with graphitic bands. Coarse gal, py. Massive calc silicate in F.W. sheared volcanics in H.W.	1.920	14.9 ppm Ag 5928 ppm Pb 350 ppm Zn
3/8/89	19NW 15W (105cm NNW of 25851)	25852	Selective Grab	Quartz vein with graphitic bands. Vuggy, limonitic. Aggregates of gal, minor py, trace mal.	0.158	19.2 ppm Ag 252 ppm Cu 822 ppm Pb 10243 ppm Zn
3/8/89	B.L. 20NW	25853	Selective Grab	Quartz vein graphitic bands. Trace mal, py - limonite.	0.025	2.1 ppm Ag 200 ppm Pb 200 ppm Zn
3/8/89	21.5NW 1.6NE	25854	Selective Grab	Quartz vein - sweat, trace py. Some rusty iron carbonate in sample.	0.018	
3/8/89	95cm South of 25747	25855	Selective Grab	Quartz vein graphitic and and fractured with coarse gal. Dip 45° SW. Massive calc silicate in F.W.	4.392	VISIBLE GOLD. 18.7 ppm Ag 2652 ppm Pb 1609 ppm Zn
3/8/89	14.25NW 3.3SW	25856	Selective Grab	Quartz vein with dogtooth crystal intergrowth. Abundant gal, mal, az, cpy, py. Massive calc silicate at F.W.	0.405	50 ppm Ag 16.7 ppm Cd 2394 ppm Cu 16006 ppm Pb 1334 ppm Zn
3/8/89	14.25NW 3.3SW	25857	25cm chip	Quartz vein with graphitic banding. Trace mal, gal, py.	0.094	7.9 ppm Ag 1594 ppm Pb 590 ppm Zn
3/8/89	225cm SSE from 25857	25858	Selective Grab	Quartz vein, with graphitic bands. Some vuggy cavities. Gal, mal, cpy, minor py.	0.324	21.7 ppm Ag 19.6 ppm Cd 6239 ppm Pb 3488 ppm Zn 370 ppm Cu
3/8/89	73cm NNW of 25858	25859	Selective Grab	Same as 25858.	0.564	31.7 ppm Ag 728 ppm Cu 5408 ppm Pb 3496 ppm Zn 32.2 ppm Cd
3/8/89	4.25SE 2.10NE	25860	Selective Grab	Quartz vein with graphitic banding Trace py, cpy, massive calc silicate in H.W., sheared volcanic in F.W.	4.718	VISIBLE GOLD. 31.7 ppm Ag

TABLE 4
ASSAY RESULTS AND SAMPLE DESCRIPTIONS TOG PROPERTY SHOWING (Cont'd)

Date	Location	Sample No.	Width	Description	Au (oz/ST)	Remarks
3/8/89	110cm NW of 25860	25861	Selective Grab	Quartz vein with graphitic banding. Trace py, cpy, massive calc silicate in H.W., sheared volcanic in F.W.	0.184	5.3 ppm Ag 1054 ppm Pb
19/7/89	22NW B.L.	25820	Selective Grab	Quartz vein with gal, py, cpy.	0.005	VISIBLE GOLD 0.8 ppm Ag
				Reassayed	0.036	
19/7/89	11.8NW 4SW	25821	Selective Grab	Quartz vein at F.W of massive calc silicate. Gal, cpy, py, mal, az.	1.412	> 50 ppm Ag 22.8 ppm Cd 6818 ppm Cu > 20000 Pb Sb 2000 ppm Zn 1138 ppm
19/7/89	0.8 metres south B.L. Line 0	25822	Selective Grab	Quartz vein. Au, cpy, py, mal az.	0.005	VISIBLE GOLD 1.2 ppm Ag 517 ppm Pb
				Reassayed	0.023	
19/7/89	40NW 8SW	25836	Grab	Black-sheared graphitic volcanic with quartz veins. Trace mal. Yellow sulphur staining.	260 ppb	1.3 ppm Ag 157 ppm Pb 412 ppm Zn
15/7/89	3NW 1.85SW	RC-89001	Selective Grab	Quartz vein, graphitic bands. Gal, py.	1.189	VISIBLE GOLD.
15/7/89	12NW 4SW	RC-89002	Selective Grab	Quartz vein at F.W. of massive calc silicate. Gal, cpy, py, mal, az.	7.503	COARSE VISIBLE GOLD.
15/7/89	30cm NW of sample 25747	RC-89003	Selective Grab	Quartz vein with graphitic bandings. Sheared volcanics in H.W. Massive, pyritic calc silicate in F.W.	10.182	COARSE VISIBLE GOLD.

GEOCHEMISTRY

All geochemical analysis was performed by Vangeochem Lab. Ltd. in Vancouver, B.C.

Rock Geochemistry

Rock samples were collected on the BUG and TOG properties by W. Taylor and M. Moore (Geological Assistant). R. Clark (Secretary of Dunvegan Exploration Ltd.) took 3 samples (RC89001, RC89002 and RC89003) in the presence of W. Taylor on the TOG showing. Rocks on the BUG and TOG properties were analysed by gold metallics (+140 mesh and -140 mesh) or by Fire Assay (AAS finish on a 20g sample). A description of the technique involved is included in the appendix. A total of 53 rock samples were analysed on the BUG property and 160 rock samples on the TOG property. Analytical sheets for pertinent samples collected are included in the Appendix.

BUG

The significant geochemical results on the BUG property are documented in Table 2 and 3. These include all samples taken from Trench 1 (Figure 8), those samples taken from Zone B (Figure 12) are documented in Table 3. Multi element (I.C.P.) analysis shows that higher gold values generally give elevated levels of silver, arsenic and to some extent zinc (Table 2 and 3).

TOG

The significant geochemical results on the TOG property are documented in Table 4. These include all samples taken from the TOG showing. Multi element (I.C.P.) analysis shows that high gold values at the TOG showing are associated with elevated levels of silver, zinc, cadmium, galena, copper and sometimes arsenic and antimony (Table 4). There appears to be a stronger arsenic-gold correlation on the BUG showing than on the TOG showing (Table 3 and Table 4).

Soil Geochemistry

The geochemistry of 162 soil samples collected on the BUG property and 453 samples from the TOG which were analysed for gold and 25 element I.C.P., proved to be inconclusive. Poor soil development and quality, due to a light cover of glacial till, permafrost and the high frequency of swampy ground may explain this. Because of the association of zinc with the higher gold values on both properties in rock geochemistry, zinc 100 ppb may be a weak pathfinder, however, no geostatistics has been done to confirm this idea.

On the PHIL property, four soils, two silts and two pan concentrate samples were collected. The 1987 510 ppb gold soil anomaly of G. Davidson was resampled and returned insignificant gold values. However, visible gold was discovered in the silt by W. Taylor and M. Moore whilst panning in the north part of the PHIL-4 claim unit (Figure 3). A 30g panned concentrate of this material analysed for gold by Fire Assay (AAS finish) returned 1630 ppb gold, reflecting the potential for gold mineralization in the region.

GEOPHYSICS

Orientation VLF/EM and magnetometer surveys were conducted on the BUG and TOG properties. More detailed studies were completed over the main showings on both claim groups (see Figures 10 and 11).

These techniques have been useful in outlining mineralized structures on the Golden Bear Deposit (Muddy Lake) of North American Metals. On the BUG and TOG claims these methods were employed to define boundaries of major structures and to delineate any secondary structures within these zones that may be important with respect to hosting precious metal mineralization.

The magnetometer surveys were used principally to outline geological units and in particular magnetite depleted listwaenite alteration zones which are characterized by discrete magnetic lows. The VLF/EM proved useful in outlining shear and or graphitic horizons. The result of these surveys summarized below and are more completely discussed in a detailed geophysical report submitted to the company in July 1989 (Steele, 1989).

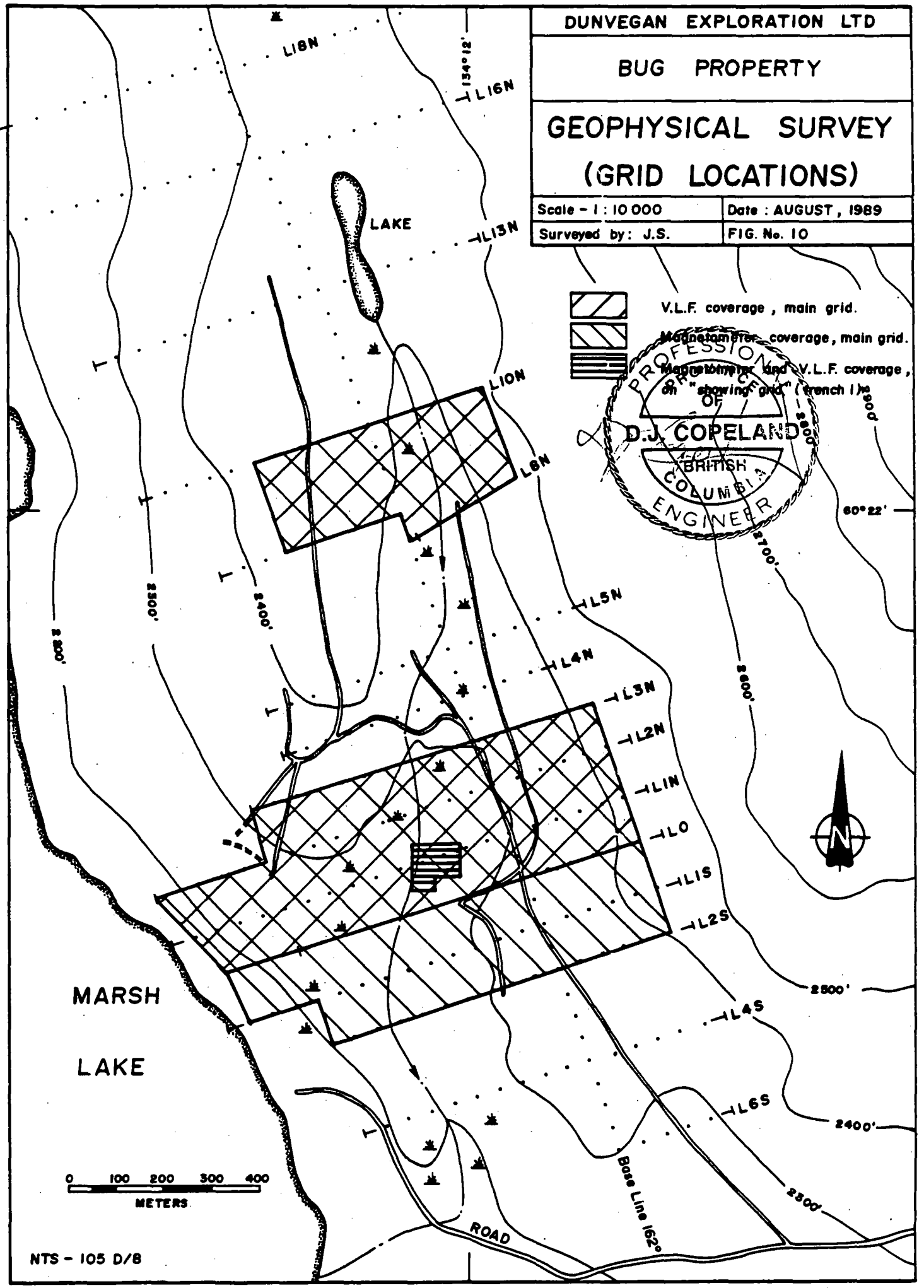
BUG Claims

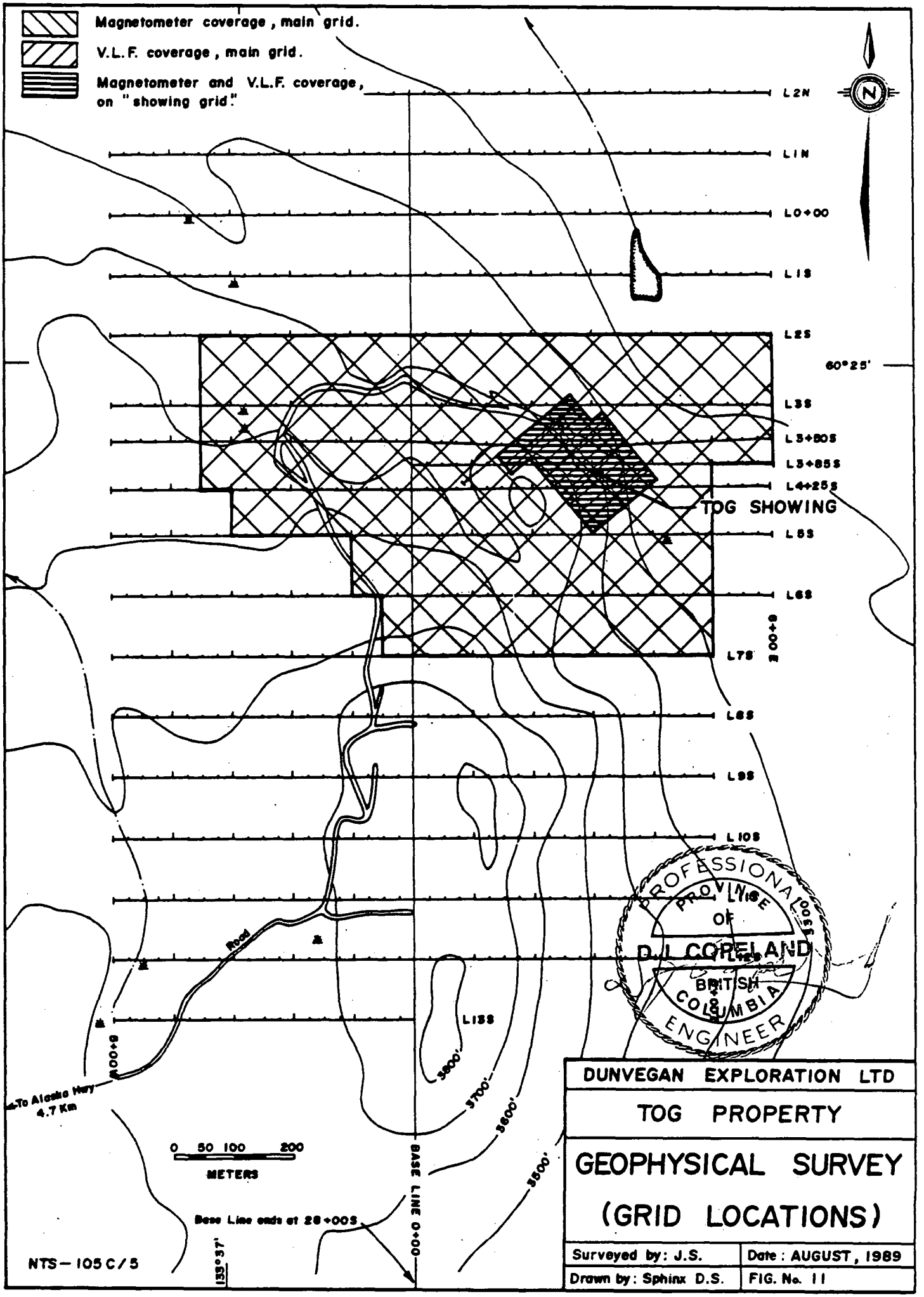
Magnetometer surveys on the BUG were successful in delineating the contacts between serpentinized ultramafics and a volcanic-sedimentary package. Magnetic lows were found to coincide with zones of alteration and are often bounded by VLF/EM conductors. In the area of the main showing a magnetic low is centred within higher magnetics to the west, north and east and is bounded on the east and west by north south trending VLF/EM conductors (Figure 12). The conductors are interpreted to represent shears marginal to alteration zones and may extend along strike for up to 1800m to the north. The magnetic low/alteration zone has returned values of up to 1030 ppb gold. In addition, a weak northeast trending conductor can be traced in the vicinity of the main showing and Zone B where values of up to 810 ppb gold are associated with altered rocks (Figure 12).

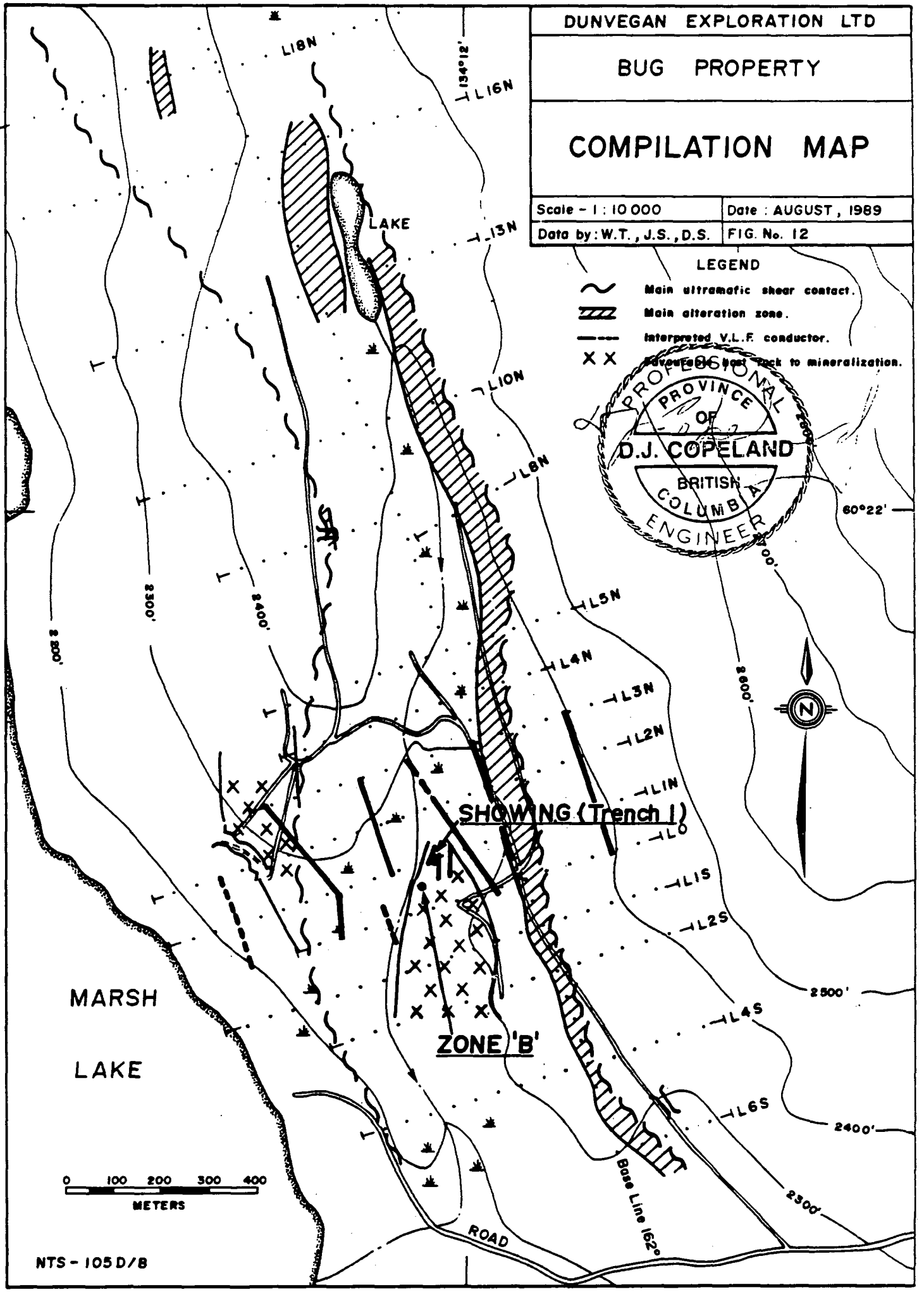
TOG Claims

Similar to the BUG claims, the magnetometer surveys are useful in delineating geological units, in particular magnetic lows are found to be associated with alteration zones. Several VLF/EM conductors are interpreted to represent shears, faults and/or graphitic horizons.

The magnetic signature over the showing was poorly defined. One main northwest trending VLF/EM conductor and one or more secondary VLF/EM conductors however, have been outlined near the main zone of gold mineralization. The main conductor has been correlated with a graphitic horizon, which lies marginal to the hanging wall of the mineralized quartz bearing structure (Figure 13). This has been traced under overburden for 140 metres from 1+00NW to 0+40SE through the main showing. It is open to the southeast. In addition, weak isolated VLF/EM conductors lie along the footwall trace of the gold bearing quartz vein structure (Figure 13).


DUNVEGAN EXPLORATION LTD
BUG PROPERTY
GEOPHYSICAL SURVEY
(GRID LOCATIONS)
Scale - 1 : 10 000
Date : AUGUST, 1989
Surveyed by: J.S.
FIG. No. 10
V.L.F. coverage, main grid.
Magnetometer coverage, main grid.
Magnetometer and V.L.F. coverage, on "showing grid" (trench 1)
PROFESSIONAL ENGINEER
OF
D.J. COPELAND
BRITISH COLUMBIA
L18N
L16N
L13N
L10N
L8N
L5N
L4N
L3N
L2N
L1N
L0
L1S
L2S
L4S
L6S
LAKE
MARSH
LAKE
ROAD
Base Line 162°
134°12'
60°22'
2700'
2600'
2500'
2400'
2300'
2200'
2800'
2900'
0 100 200 300 400
METERS
N
NTS - 105 D/8


Magnetometer coverage, main grid.
V.L.F. coverage, main grid.
Magnetometer and V.L.F. coverage, on "showing grid."
L2N
L1N
L0+00
L1S
L2S
60°25'
L3S
L3+80S
L3+85S
L4+25S
TOG SHOWING
L5S
L6S
L7S
B0+00
L8S
L9S
L10S
L11S
B+00S
To Alaska Hwy 4.7 Km
Road
3600'
3700'
3600'
3500'
BASE LINE 0+00
0 50 100 200
METERS
Base Line ends at 28+00S
133°37'
NTS — 105 C/5
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. J. COPELAND
DUNVEGAN EXPLORATION LTD
TOG PROPERTY
GEOPHYSICAL SURVEY
(GRID LOCATIONS)
Surveyed by: J.S.
Date: AUGUST, 1989
Drawn by: Sphinx D.S.
FIG. No. 11


DUNVEGAN EXPLORATION LTD
BUG PROPERTY
COMPILATION MAP
Scale - 1 : 10 000
Date : AUGUST, 1989
Data by: W.T., J.S., D.S.
FIG. No. 12
LEGEND
Main ultramafic shear contact.
Main alteration zone.
Interpreted V.L.F. conductor.
Favourable host rock to mineralization.
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D.J. COPELAND
L18N
L16N
L13N
L10N
L8N
L5N
L4N
L3N
L2N
L1N
L0
L1S
L2S
L4S
L6S
LAKE
SHOWING (Trench 1)
ZONE 'B'
MARSH
LAKE
ROAD
Base Line 162°
134°12'
60°22'
2600'
2500'
2400'
2300'
2200'
0 100 200 300 400
METERS
N
NTS - 105 D/8

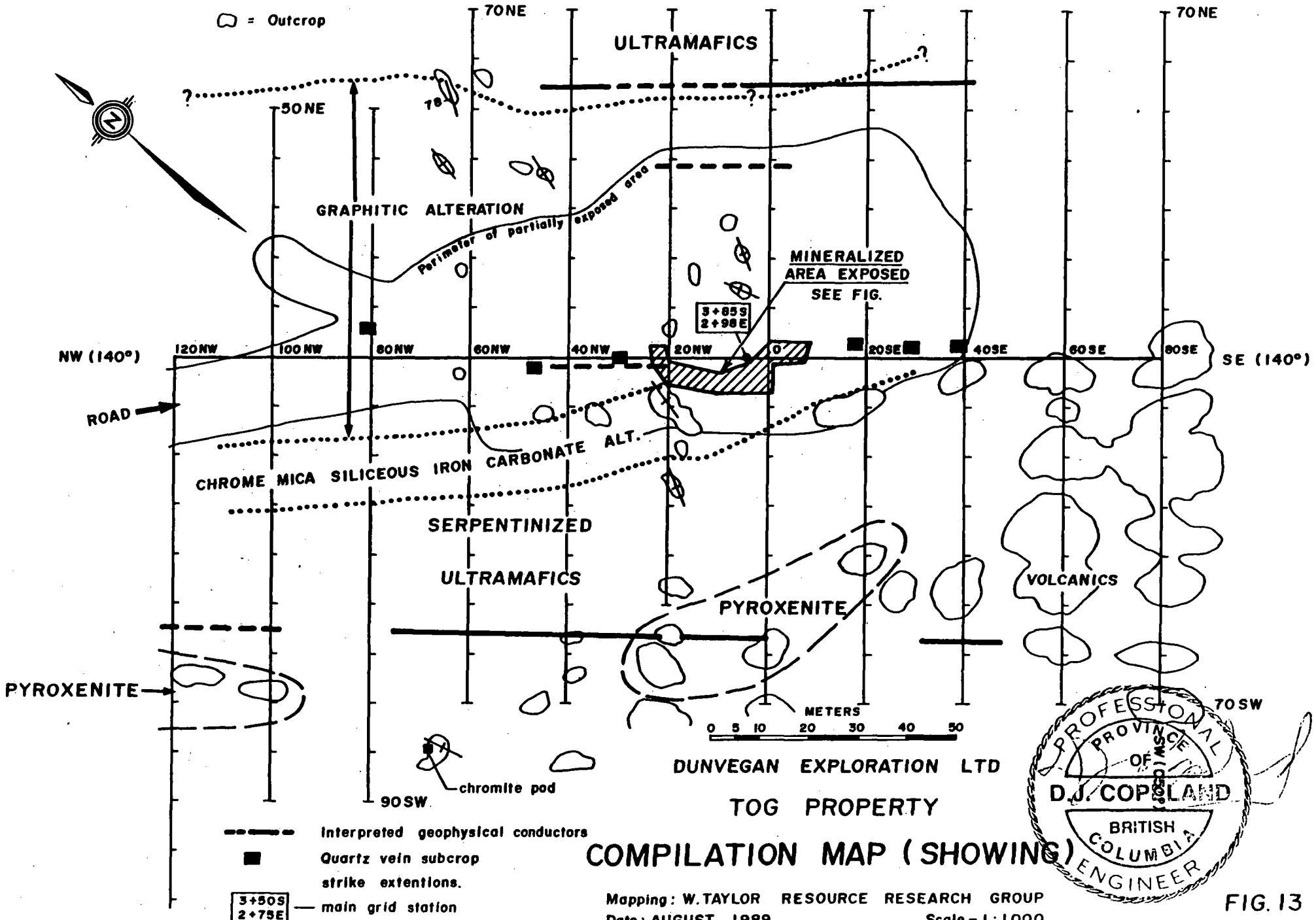

= Outcrop
70NE
ULTRAMAFICS
50NE
GRAPHITIC ALTERATION
Perimeter of partially exposed area
MINERALIZED AREA EXPOSED SEE FIG.
3+85S 2+98E
NW (140°)
120NW
100NW
80NW
60NW
40NW
20NW
0
20SE
40SE
60SE
80SE
SE (140°)
ROAD
CHROME MICA SILICEOUS IRON CARBONATE ALT.
SERPENTINIZED ULTRAMAFICS
PYROXENITE
VOLCANICS
PYROXENITE
METERS
0 5 10 20 30 40 50
chromite pod
90SW
70SW
DUNVEGAN EXPLORATION LTD
TOG PROPERTY
COMPILATION MAP (SHOWING)
Interpreted geophysical conductors
Quartz vein subcrop
strike extentions.
3+50S 2+75E — main grid station
Mapping: W. TAYLOR RESOURCE RESEARCH GROUP
Date: AUGUST, 1989
Scale - 1:1000
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D.J. COPELAND

FIG. 13

CONCLUSIONS

It is the opinion of the writers that further exploration is definately warranted on the BUG and TOG properties for the following reasons:

BUG Property

Anomalous gold mineralization across a surface width of at least 11 metres has been indentified at the site of trench 1. Siliceous, brecciated conglomerate with pyrite returned gold values of up to 1030 ppb during the 1989 exploration program.

A second zone of anomalous gold mineralization has been identified 50 metres to the southwest: 'Zone B', where values of gold up to 810 ppb, have been obtained from quartz flooded 'listwaenitic' rocks near the sedimentary rock contact.

These two areas combined, represent a favourable exploration target of at least 50 metres strike length.

The gold mineralization has been shown to be the result of the occurence of a favourable host rock (coarse clastic sediments and volcanics) within a major shear zone.

Geophysical surveying has shown that similar prospective structures and host lithologies may be defined elsewhere on the property and that certain conductors can be correlated with mineralized zones, as is the case at Trench 1. A strong continuous 'listwaenitic' alteration zone with carbonitization and silicification attaining a width of 50 metres is presently recognized along the whole length of the main shear zone with a strike length of 2.4 km, which is untested to the north, south and also at depth. Areas of low geophysical magnetic response which correspond with interpreted conductors within the main shear zone should provide prospective exploration targets on a property scale.

The geological situation is very similar to that described in the Atlin Gold camp.

TOG Property

Very high grade, visible gold mineralization has been recognized at the showing on the property, gold assay values up to 41.482 oz/ton have been obtained. This style of gold mineralization is similar to the Motherlode district in California U.S.A. where very high grade 'pocket' bonanza concentrations of gold are seen in veins.

The zone of quartz veining that hosts visible gold mineralization (across a true width of 5 metres and a known strike length of 26 metres, within the presently exposed bedrock), is defined by numerous through going graphitic shears, suggesting strong structural controls to gold mineralization.

Geophysical surveying has detected conductors at the showing, suggesting mineralization may continue along strike for at least 140 metres.

The altered carbonatized zone of the TOG showing attains a width of 85 metres, with silicification and sulphide mineralization over a width of at least 10 metres, suggesting a fairly large hydrothermal system is responsible. Both the gold mineralized zone and this alteration zone are untested at depth.

The structural setting and type of alteration seen at the showing is also evident at other locations on the property, the main such location is a northwest trending zone 600m west of the showing. Prospective alteration zones may be detected geophysically.

The structures, geology, extensive listwaenitic alteration, and type of gold mineralization found, is very similar to the gold mineralization in the Atlin Camp where gold quartz veins are structurally controlled by faults and or shears adjacent to ultramafic bodies.

RECOMMENDATIONS AND COST ESTIMATES

BUG Property

Phase 1:

Establish an accurate grid on which to conduct further detailed geophysical surveying. Using geophysics to identify and define additional zones within the shear structure that exhibit a similar geophysical character to that displayed in the area of Trench 1 and Zone B. Conduct backhoe trenching program to expose bedrock at Zone B and in the area between Trench 1 and Zone B. Once exposed the bedrock should be systematically sampled. Extend the trenching program to any new areas identified as a result of the geophysical survey.

Phase 2:

Contingent upon positive results from the Phase 1 program, a diamond drill program should be implemented to test the outlined mineralized zones at depth.

TOG Claims

Phase 1:

Establish an accurate grid on the property in order to conduct detailed geophysical and geological mapping over that part of the property that was not covered during the preliminary program.

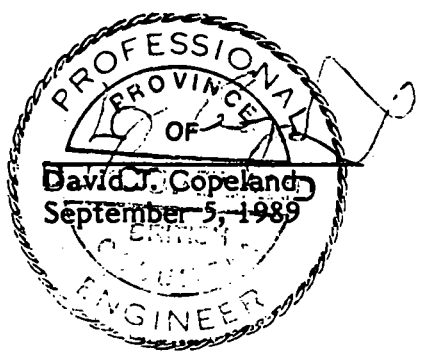
Conduct a backhoe trenching and stripping program to extend the zone of mineralization at the high grade gold showing along strike in both directions.

With the backhoe open up bedrock exposure on line 3 + 00S at 2 + 00W and at line 5 + 00S on the baseline, where the prospective structure, alteration and geophysical signature are coincident.

Conduct detailed sampling across measured widths at all of the above locations.

Phase 2:

Contingent upon successful results from Phase 1, conduct a diamond drill program to test the mineralized zones at depth.



David J. Copeland
September 5, 1989

Cost Estimate

BUG Property

Phase 1:	$
Grid establishment (all-in)	7,000.00
Geophysical survey (all-in)	16,000.00
Backhoe hire ($120.00/hr.)	14,400.00
Geologist (21 days @ $250.00 per day)	5,250.00
Geological assistant (21 days @ $150.00 per day)	3,150.00
Supervision (11 days @ $400.00 per day)	4,400.00
Vehicle hire (21 days @ $75.00 per day)	1,575.00
Assay costs (300 @ $30.00 per sample)	9,000.00
Accommodation	1,000.00
Air fares	3,500.00
Food	1,800.00
Fuel	250.00
Freight	1,000.00
Supplies	500.00
Communication	170.00
Report	5,000.00
Contingency @ 10%	7,400.00
Total	$ 81,395.00

Phase 2:	
Diamond drilling (2000 ft. @ $50.00/ft. all-in)	100,000.00
Geologist (14 days @ $250.00 per day)	3,500.00
Assistant geologist (14 days @ $150.00 per day)	2,100.00
Supervision (8 days @ $400.00 per day)	3,200.00
Assay costs	6,000.00
Vehicle hire (14 days @ $75.00 per day)	1,050.00
Accommodation	600.00
Air fares	3,500.00
Food	1,100.00
Fuel	150.00
Freight	600.00
Supplies	300.00
Communication	100.00
Report	3,000.00
Contingency @ 10%	12,520.00
Total	$ 137,720.00

Total cost of Phase 1 and 2: $ 219,115.00

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D.J. COPELAND

David J. Copeland
September 2, 1982

TOG Property

Phase 1:	$
Grid establishment (all-in)	15,000.00
Geophysical Survey (all-in)	30,000.00
Backhoe hire (@ $120.00 per hour)	24,000.00
Geologist (23 days @ $250.00 per day)	5,750.00
Geological assistant (23 days @ $150.00 per day)	3,450.00
Supervision (16 days @ $400.00 per day)	6,400.00
Assay costs	12,000.00
Vehicle hire (23 days @ $75.00 per day)	1,725.00
Accommodation	1,200.00
Food	2,200.00
Air fares	3,500.00
Fuel	300.00
Freight	1,200.00
Supplies	600.00
Communication	200.00
Report	6,000.00
Contingency @ 10%	11,350.00
Total	$ 124,875.00

Phase 2:	
Drill programme (2,000 ft. @ $50.00 per foot all-in)	100,000.00
Geologist (14 days @ $250.00 per day)	3,500.00
Geological assistant (14 days @ $150.00 per day)	2,100.00
Supervision (8 days @ $400.00 per day)	3,200.00
Assay costs	6,000.00
Vehicle hire (14 days @ $75.00 per day	1,050.00
Accommodation	600.00
Air fares	3,500.00
Food	1,100.00
Fuel	150.00
Freight	600.00
Supplies	300.00
Communication	100.00
Report	3,000.00
Contingency @ 10%	12,520.00
Total	$ 137,720.00

Total cost of Phase 1 and 2:	$ 262,595.00
Total cost of proposed Dunvegan exploration program	$ 481,710.00

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D.J. COPELAND

David J. Copeland
September 5, 1989

BIBLIOGRAPHY

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STATEMENT OF QUALIFICATIONS

I, David J. Copeland, of the City of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a consulting geological engineer with a business office at Suite 1575 - 200 Granville Street, Vancouver, B.C. and am secretary of C.E.C. Engineering Ltd.

2. I am a graduate in economic geology with a Bachelor of Science degree from the University of British Columbia in 1970.

3. I am a registered member, in good standing, of the Association of Professional Engineers of B.C.

4. Since graduation I have been engaged in mineral exploration and mine development in Canada, United States of America, South America and Australasia.

5. I have directed the initial exploration activities and reviewed progress of activities on the subject property of this report between July and September, 1989.

6. I own no direct or indirect shares or securities of Dunvegan Exploration Ltd.

7. I own no direct or indirect interest in the subject claims of this report.

8. I hereby give my permission for inclusion of this letter into a statement of material facts or prospectus.

D.J. Copeland, P.Eng.

September 5, 1989

STATEMENT OF QUALIFICATIONS

I, William A. Taylor, of the City of Vancouver, Province of British Columbia, do hereby certify that:

1. I am a geologist residing at 2494 Cornwall Ave., Vancouver, B.C. and I am employed by Resource Research Group/C.S.L. with an office at 1530 - 144 4th Ave. S.W., Calgary, Alberta T2P 3N4.

2. I hold a Bachelor of Science (Hons.) degree in Geology from the University of London, England.

3. I have practised my profession continuously since 1983.

4. I co-ordinated and conducted the field exploration on the BUG, PHIL and TOG properties between June and September, 1989.

5. I own no direct or indirect shares or securities of Dunvegan Exploration Ltd.

6. I own no direct or indirect interest in the subject claims of this report.

7. I hereby give my permission for inclusion of this letter into a Statement of Material Facts or Prospectus.

William A. Taylor, B.Sc.
Resource Research Group/C.S.L.

September 5, 1989

STATEMENT OF QUALIFICATIONS

I, David A. Shaw, of the City of Calgary, Province of Alberta, do hereby certify that:

1. I am an employee of Resource Research Group/C.S.L. which has their office at 1500 - 144, 4th St. S.W., Calgary, Alberta.

2. I am a graduate in Geology with a Bachelor of Science (Specialized Honours) from the University of Sheffield, England, in 1973.

3. I graduated from Carleton University, Ottawa, in 1980 with a Doctorate of Philosophy in the field of Structural Geology.

4. Since graduation I have been engaged in resource study and exploration in Europe, North America and Southeast Asia.

5. I supervised and participated in the exploration projects on the BUG and TOG properties during parts of the months of June, July, August and September, 1989.

6. I own no direct or indirect shares or securities of Dunvegan Exploration Ltd.

7. I own no direct or indirect interest in the subject claims of this report.

8. I hereby give my permission for inclusion of this letter into a Statement of Material Facts or Prospectus.

David A. Shaw

David A. Shaw, Ph.D.
Resource Research Group/C.S.L.

September 5, 1989

APPENDIX 1

Energy, Mines and Resources Canada
Geological Survey of Canada Sector
601 Booth Street
Ottawa, Ontario
K1A 0E8

Énergie, Mines et Ressources Canada
Secteur de la Commission géologique du Canada

August 18, 1989

Mr. James E. Ryan
President
Dunvegan Explorations Ltd.
#205 - 700 West Pender St.
Vancouver, British Columbia
V6C 1G8

Dear Mr. Ryan,

I have received your letter of July 24th. I wish to thank you, Arnie Mullenand and Gord McLeod for the opportunity to revisit your Tog property in Teslin map sheet NTS 105C-5. Gord and I went to this prospect in the summer of 1985 by helicopter. It certainly is a valuable improvement having such an excellent road into the now well exposed and trenched outcrop.

From my limited examination of the discovery outcrops (i.e. I have not walked the whole property) I can say that my impressions of the showing as reported to G.M. McLeod by letter (August 7, 1986) have not changed, <u>but</u> they have been strongly confirmed.

1) In the local context, the prospect is most similar to gold-bearing veins found in the Atlin placer mining camp. They are therefore directly comparable to gold-quartz vein mineralization found in the famous Motherlode Gold Belt of California.

2) The "Tog" is hosted in Cache Creek Group rocks of the Atlin Terrane which is a dismembered ocean floor sequence (ophiolite). The gold-quartz veins appear to be strongly structurally controlled by faults and/or shears. The well developed vein(s) and/or vein system occurs at the contact of altered ultramafic rocks and varying more competent rock types. Note that the minor Teslin Fault system (i.e. Teslin Lake Suture) could have influenced your local structural patterns since your geologic setting is comparable to the lodes found in portions of the Motherlode Belt, California. These types of "mega" scale structures and associated ocean floor rocks are also being actively and successfully explored for gold lodes along the Pinchi Fault system of central British Columbia and along the important Baie Verte Fault System of Newfoundland.

3) I collected some visible gold samples in 1985 and found numerous locations of visible gold in the newly exposed portion of what would now appear to be a strong vein(s) system of variable width. The visible gold is associated as free gold in smokey grey quartz, gold with tetrahedrite, gold along graphitic (black) fractures in quartz and gold in iron carbonate. As previously reported the gold was examined with an electron microprobe at the Geological Survey of Canada and found to contain 93.5% gold and 6.0% silver. These results will be checked against the new samples collected from the above varying styles of occurrence.

4) The general sulphide content of the vein(s) is low, however, in the bleached carbonate-altered wall rock of the vein limited pyrite concentrations are observed. Previous geochemical analysis by the GSC suggests that this pyritized altered material also carries gold values. Silver values in the veins are low suggesting a high gold to silver ratio similar to the gold composition itself.

5) Your geophysical work being done should be successful in delineating the altered structural zones since the intense hydrothermal alteration of the rocks results in very obvious linear high low patterns. This anomaly contrast has also been confirmed to be the best indicator of "blind" ore shoots being followed in Atlin and Newfoundland.

6) The professional approach to exploration as exhibited by your field crew was indicative of a well planned multi-facetted survey program. I am sure that the results from the Tog and Bug properties will be most encouraging.

7) As my research results become available I will keep you fully informed.

Thanks again for your support of GSC research activities.

Yours sincerely,

S. B. Ballantyne

S.B. Ballantyne
Mineral Resources Division

APPENDIX 2

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
• (604) 251-5656
• FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

August 21, 1989

TO: Dunvegan Exploration Ltd
205 - 407 Granville St
Vancouver, B C
V6C 1T2

FROM: Vangeochem Lab Limited
1988 Triumph Street
Vancouver, British Columbia
V5L 1K5

SUBJECT: Analytical procedure used to determine metallic gold by fire assay and gravimetrically.

1. Method of Sample Preparation

(a) Rock samples would be received at the laboratory in poly ore bags.

(b) Dried rock samples would be crushed using a jaw crusher and pulverized to 140 mesh or finer by using a disc mill.

(c) The whole sample or portion of the sample would then be screened through a 140 mesh screen. The +140 mesh fraction (metallics) would be weighed and then put into an envelope for gold analysis with its weight recorded. The -140 mesh fraction would be weighed then rolled and transferred to a new bag with its weight recorded and a portion subsequently used for analysis.

2. Method of Extraction

(a) The whole +140 mesh fraction is fluxed and fused. 1/2 to 1 assay tonne of the pulp sample (-140 mesh fraction) would be used.

(b) A flux of litharge, soda ash, silica borax, and either flour or potassium nitrate is added. The samples are thoroughly mixed. Liquid Ag inquart is added, then the samples are fused at 1900 degrees Fahrenheit to form lead buttons.

(c) The lead buttons are cupelled to dore beads. The beads are parted with dilute nitric acid and washed several times.

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MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

(d) The gold beads are then annealled.

3. **Method of Determination**

The gold beads are weighed using a Sartorius electronic micro-balance. Using the weights of +140 mesh and -140 mesh fractions and the weights of gold, the assay is then calculated and reported in ounces per short tonne or grams per tonne.

4. **Analysts**

The analyses were supervised or determined by Mr. Raymond Chan or Mr. Conway Chun and his laboratory staff.

Raymond Chan
Vangeochem Lab Limited

APPENDIX 3

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
● (604) 251-5656
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BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPL. LTD
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: JULY 12 1989
REPORT#: 890313 MA
JOB#: 890313

PROJECT#: 8904
SAMPLES ARRIVED: JULY 11 1989
REPORT COMPLETED: JULY 12 1989
ANALYSED FOR: Metallic Au

INVOICE#: 890313 NA
TOTAL SAMPLES: 2
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 2 ROCK

SAMPLES FROM: W. TAYLOR
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPL. LTD

ANALYSED BY: Raymond Chan

SIGNED: Raymond Chan

Registered Provincial Assayer

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
• (604) 251-5656
• FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT #: 890313 MA

Sample Number		Weight (gm)	Au (mg)	Au (oz/st)
25681	TOTAL	245.07	--	0.010
25681	+150	5.07	0.004	--
25681	-150	240.00	--	0.010
25683	TOTAL	220.91	--	0.005
25683	+150	5.91	0.002	--
25683	-150	215.00	--	0.005

Minimum Detection	0.01	0.001	0.005
Maximum Detection	10000.00	1000.000	1000.000

(= Below Limit is = Insufficient Sample ns = No sample) = Over Limit

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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● FAX (604) 254-5717

BRANCH OFFICES
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BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPL. LTD
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: JULY 19 1989
REPORT#: 890336 MA
JOB#: 890336

PROJECT#: 8904
SAMPLES ARRIVED: JULY 19 1989
REPORT COMPLETED: JULY 19 1989
ANALYSED FOR: Metallic Au

INVOICE#: 890336 NA
TOTAL SAMPLES: 1
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 1 ROCK

SAMPLES FROM: DUNVEGAN EXPL. LTD
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPL. LTD

ANALYSED BY: Raymond Chan

SIGNED: _____
Registered Provincial Assayer

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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VANCOUVER, B.C. V5L 1K5
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• FAX (604) 254-5717

BRANCH OFFICES
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BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT #: 890336 MA

DUNVEGAN EXPL. LTD

Sample	Number	Weight (gm)	Au (mg)	Au (oz/st)
25693	TOTAL	302.44	--	0.020
25693	+150	8.44	0.005	--
25693	-150	294.00	--	0.020

Minimum Detection	0.01	0.001	0.005
Maximum Detection	10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

VGC VANGEOCHEM LAB LIMITED

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GEOCHEMICAL ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPL. LTD
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: JULY 25 1989
REPORT#: 890335 GA
JOB#: 890335

PROJECT#: 8904
SAMPLES ARRIVED: JULY 17 1989
REPORT COMPLETED: JULY 25 1989
ANALYSED FOR: Au (FA/AAS) ICP

INVOICE#: 890335 NA
TOTAL SAMPLES: 12
SAMPLE TYPE: 12 ROCK
REJECTS: SAVED

SAMPLES FROM: DUNVEGAN EXPL. LTD
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPL. LTD

ANALYSED BY: VGC Staff

SIGNED: Jaime C. Wong

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
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BRANCH OFFICES
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MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 890335 GA JOB NUMBER: 890335 DUNVEGAN EXPL. LTD

SAMPLE #	Au ppb
25687	30
25688	5
25689	20
25690	10
25691	10
25692	10
25694	100
25695	810
25696	100
25697	370
25698	20
25699	20

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
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BRANCH OFFICES
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GEOCHEMICAL ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPL. LTD
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: JULY 17 1989
REPORT#: 890314 GA
JOB#: 890314

PROJECT#: 8904
SAMPLES ARRIVED: JULY 11 1989
REPORT COMPLETED: JULY 17 1989
ANALYSED FOR: Au (FA/AAS) ICP

INVOICE#: 890314 NA
TOTAL SAMPLES: 34
SAMPLE TYPE: 34 ROCK
REJECTS: SAVED

SAMPLES FROM: WHITEHORSE
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPL. LTD

ANALYSED BY: VGC Staff

SIGNED: Jaime C. Wong

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
● (604) 251-5656
● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 890314 GA JOB NUMBER: 890314 BURWEGAN EXPL. LTD

SAMPLE #	Au ppb
25651	80
25652	390
25653	860
25654	340
25655	670
25656	480
25657	310
25658	200
25659	30
25660	60
25661	210
25662	30
25663	30
25664	290
25665	100
25666	220
25667	50
25668	150
25669	20
25670	5
25671	5
25672	5
25673	5
25674	5
25675	10
25676	5
25677	20
25678	5
25679	10
25680	1030
25682	580
25684	60
25685	590
25686	180

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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VANCOUVER, B.C. V5L 1K5
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BRANCH OFFICES
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GEOCHEMICAL ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPLORATION LTD.
ADDRESS: 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: AUGUST 8 1989
REPORT#: 890400 GA
JOB#: 890400

PROJECT#: 8904
SAMPLES ARRIVED: AUGUST 1 1989
REPORT COMPLETED: AUGUST 8 1989
ANALYSED FOR: Au (FA/AAS) ICP

INVOICE#: 890400 NA
TOTAL SAMPLES: 2
SAMPLE TYPE: 2 SOIL
REJECTS: DISCARDED

SAMPLES FROM: WHITEHORSE
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: MR. WILLIAM TAYLOR

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
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● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
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MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPLORATION LTD.
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, BC
: V6C 1T2

DATE: AUGUST 2 1989
REPORT#: 890383 MA
JOB#: 890383

PROJECT#: 8904
SAMPLES ARRIVED: JULY 27 1989
REPORT COMPLETED: AUGUST 2 1989
ANALYSED FOR: Metallic Au

INVOICE#: 890383 NA
TOTAL SAMPLES: 10
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 5 ROCK

SAMPLES FROM: WHITEHORSE
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPLORATION LTD.

25 ANNIVERSARY

ANALYSED BY: Raymond Chan

SIGNED: _____
Registered Provincial Assayer

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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VANCOUVER, B.C. V5L 1K5
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• FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT #: 890383 MA DUNVEGAN EXPLORATION LTD.

Sample	Number	Weight (gm)	Au (mg)	Au (oz/st)
25815	TOTAL	260.61	--	<0.005
25815	+150	6.81	<0.001	--
25815	-150	253.80	--	<0.005
25816	TOTAL	256.44	--	<0.005
25816	+150	6.44	<0.001	--
25816	-150	250.00	--	<0.005
25820	TOTAL	243.02	--	<0.005
25820	+150	7.52	<0.001	--
25820	-150	235.50	--	<0.005
25821	TOTAL	269.71	--	1.412
25821	+150	7.71	3.411	--
25821	-150	262.00	--	1.074
25822	TOTAL	259.74	--	<0.005
25822	+150	5.74	<0.001	--
25822	-150	254.00	--	<0.005

Minimum Detection	0.01	0.001	0.005
Maximum Detection	10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
● (604) 251-5656
● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPLORATION LTD.
ADDRESS: 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: AUGUST 8 1989
REPORT#: 890410 AA
JOB#: 890410

PROJECT#: FILE #8839557
SAMPLES ARRIVED: AUGUST 3 1989
REPORT COMPLETED: AUGUST 8 1989
ANALYSED FOR: Metallic Au

INVOICE#: 890410 NA
TOTAL SAMPLES: 3
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 3 ROCK

SAMPLES FROM: DUNVEGAN EXPLORATION LTD.
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPLORATION LTD.

ANALYSED BY: Raymond Chan

SIGNED: _____
Registered Provincial Assayer

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
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MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT #: 890410 MA DUNVEGAN EXPL

Sample Number		Weight (gm)	Au (mg)	Au (oz/st)
RC-89001	TOTAL	261.07	--	1.189
RC-89001	+150	9.57	3.096	--
RC-89001	-150	251.50	--	0.875
RC-89002	TOTAL	144.64	--	7.503
RC-89002	+150	5.64	11.989	--
RC-89002	-150	139.00	--	5.292
RC-89003	TOTAL	330.95	--	10.182
RC-89003	+150	10.95	13.945	--
RC-89003	-150	320.00	--	9.259

Minimum Detection	0.01	0.001	0.005
Maximum Detection	10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
● (604) 251-5656
● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPLORATION LTD.
ADDRESS: 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: AUGUST 11 1989
REPORT#: 890422 MA
JOB#: 890422

PROJECT#: 8904
SAMPLES ARRIVED: AUGUST 8 1989
REPORT COMPLETED: AUGUST 11 1989
ANALYSED FOR: Metallic Au

INVOICE#: 890422 NA
TOTAL SAMPLES: 62
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 31 ROCK

SAMPLES FROM: W. TAYLOR
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPLORATION LTD.

ANALYSED BY: Raymond Chan

SIGNED: _____

Registered Provincial Assayer

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

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REPORT #: 890422 MA DUNVEGAN EXPL

Sample Number		Weight (gm)	Au (mg)	Au (oz/st)
25639	TOTAL	226.81	--	<0.005
25639	+150	4.81	<0.001	--
25639	-150	222.00	--	<0.005
25641	TOTAL	224.08	--	0.030
25641	+150	8.08	0.021	--
25641	-150	216.00	--	0.028
25642	TOTAL	219.42	--	0.012
25642	+150	6.42	0.009	--
25642	-150	213.00	--	0.011
25643	TOTAL	228.53	--	0.066
25643	+150	8.83	0.220	--
25643	-150	219.70	--	0.040
25701	TOTAL	242.16	--	0.719
25701	+150	7.16	0.908	--
25701	-150	235.00	--	0.628
25703	TOTAL	227.05	--	0.220
25703	+150	6.65	0.926	--
25703	-150	220.40	--	0.104
25705	TOTAL	225.01	--	0.554
25705	+150	4.51	1.145	--
25705	-150	220.50	--	0.414
25707	TOTAL	227.36	--	<0.005
25707	+150	7.86	<0.001	--
25707	-150	219.50	--	<0.005
25736	TOTAL	216.29	--	0.120
25736	+150	5.69	0.140	--
25736	-150	210.60	--	0.104
25737	TOTAL	226.45	--	0.033
25737	+150	5.25	0.029	--
25737	-150	221.20	--	0.030
25738	TOTAL	217.42	--	<0.005
25738	+150	6.42	0.002	--
25738	-150	211.00	--	<0.005
Minimum Detection		0.01	0.001	0.005
Maximum Detection		10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

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REPORT #: 890422 MA DUNVEGAN EXPL

Sample Number		Weight (gm)	Au (mg)	Au (oz/st)
25739	TOTAL	215.08	--	<0.005
25739	+150	5.48	0.005	--
25739	-150	209.60	--	<0.005
25740	TOTAL	225.94	--	0.006
25740	+150	6.34	0.005	--
25740	-150	219.60	--	0.005
25741	TOTAL	240.62	--	0.009
25741	+150	5.62	0.008	--
25741	-150	235.00	--	0.008
25742	TOTAL	228.05	--	<0.005
25742	+150	6.75	<0.001	--
25742	-150	221.30	--	<0.005
25743	TOTAL	229.87	--	0.192
25743	+150	8.17	0.243	--
25743	-150	221.70	--	0.167
25744	TOTAL	233.86	--	<0.005
25744	+150	8.36	<0.001	--
25744	-150	225.50	--	<0.005
25745	TOTAL	237.40	--	0.192
25745	+150	7.40	0.311	--
25745	-150	230.00	--	0.159
25746	TOTAL	237.49	--	<0.005
25746	+150	5.79	<0.001	--
25746	-150	231.70	--	<0.005
25747	TOTAL	234.89	--	41.482
25747	+150	7.79	175.050	--
25747	-150	227.10	--	20.423
25851	TOTAL	239.87	--	1.920
25851	+150	7.87	9.230	--
25851	-150	232.00	--	0.825
25852	TOTAL	241.46	--	0.158
25852	+150	7.66	0.218	--
25852	-150	233.80	--	0.136
Minimum Detection		0.01	0.001	0.005
Maximum Detection		10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

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REPORT #: 890422 MA DUNVEGAN EXPL

Sample Number		Weight (gm)	Au (mg)	Au (oz/st)
25853	TOTAL	222.31	--	0.025
25853	+150	7.81	0.013	--
25853	-150	214.50	--	0.024
25854	TOTAL	220.18	--	0.018
25854	+150	6.18	0.014	--
25854	-150	214.00	--	0.017
25855	TOTAL	243.45	--	4.392
25855	+150	7.45	18.546	--
25855	-150	236.00	--	2.239
25856	TOTAL	268.67	--	0.405
25856	+150	8.17	0.691	--
25856	-150	260.50	--	0.340
25857	TOTAL	234.91	--	0.094
25857	+150	7.41	0.048	--
25857	-150	227.50	--	0.091
25858	TOTAL	238.99	--	0.324
25858	+150	8.89	0.388	--
25858	-150	230.10	--	0.287
25859	TOTAL	213.85	--	0.564
25859	+150	6.85	0.770	--
25859	-150	207.00	--	0.474
25860	TOTAL	217.87	--	4.718
25860	+150	6.87	3.435	--
25860	-150	211.00	--	4.397
25861	TOTAL	227.53	--	0.184
25861	+150	6.63	0.443	--
25861	-150	220.90	--	0.131
Minimum Detection		0.01	0.001	0.005
Maximum Detection		10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

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REPORT NUMBER: 890400 GA JOB NUMBER: 890400 DUNVEGAN EXPLORATION LTD.

SAMPLE #	Au ppb
8904-P6	30
8904-P8	1630

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

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ASSAY ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPL. LTD
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: JULY 26 1989
REPORT#: 890358 MA
JOB#: 890358

PROJECT#: 8904
SAMPLES ARRIVED: JULY 21 1989
REPORT COMPLETED: JULY 26 1989
ANALYSED FOR: Metallic Au

INVOICE#: 890358 NA
TOTAL SAMPLES: 33
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 33 ROCK

SAMPLES FROM: W. TAYLOR
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPL. LTD

25 YEARS ANNIVERSARY

ANALYSED BY: Raymond Chan

SIGNED: Raymond Chan

Registered Provincial Assayer

GENERAL REMARK: ICP REPORT WILL FOLLOW.

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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BRANCH OFFICES
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RENO, NEVADA, U.S.A.

REPORT #: 890358 MA DUNVEGAN EXPL. LTD

Sample	Number	Weight (gm)	Au (mg)	Au (oz/st)
25601	TOTAL	248.54	--	<0.005
25601	+150	12.04	<0.001	--
25601	-150	236.50	--	<0.005
25602	TOTAL	189.87	--	<0.005
25602	+150	7.87	<0.001	--
25602	-150	182.00	--	<0.005
25603	TOTAL	129.31	--	0.010
25603	+150	10.31	0.002	--
25603	-150	119.00	--	0.010
25604	TOTAL	267.83	--	<0.005
25604	+150	11.83	<0.001	--
25604	-150	256.00	--	<0.005
25605	TOTAL	271.07	--	<0.005
25605	+150	12.07	<0.001	--
25605	-150	259.00	--	<0.005
25606	TOTAL	258.92	--	<0.005
25606	+150	8.92	<0.001	--
25606	-150	250.00	--	<0.005
25607	TOTAL	258.02	--	<0.005
25607	+150	6.22	<0.001	--
25607	-150	251.80	--	<0.005
25608	TOTAL	269.97	--	0.006
25608	+150	11.47	0.002	--
25608	-150	258.50	--	0.006
25609	TOTAL	220.30	--	0.087
25609	+150	10.30	0.214	--
25609	-150	210.00	--	0.062
25610	TOTAL	277.86	--	0.008
25610	+150	8.36	0.002	--
25610	-150	269.50	--	0.008
25611	TOTAL	276.73	--	<0.005
25611	+150	4.53	<0.001	--
25611	-150	272.20	--	<0.005
Minimum Detection		0.01	0.001	0.005
Maximum Detection		10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

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REPORT #: 890358 MA DUNVEGAN EXPL. LTD

Sample	Number	Weight (gm)	Au (mg)	Au (oz/st)
25612	TOTAL	187.72	--	<0.005
25612	+150	12.12	<0.001	--
25612	-150	175.60	--	<0.005
25613	TOTAL	313.71	--	<0.005
25613	+150	4.51	<0.001	--
25613	-150	309.20	--	<0.005
25614	TOTAL	292.18	--	0.013
25614	+150	5.58	0.036	--
25614	-150	286.60	--	0.010
25615	TOTAL	275.74	--	0.005
25615	+150	5.24	0.002	--
25615	-150	270.50	--	0.005
25616	TOTAL	265.42	--	0.028
25616	+150	6.62	0.148	--
25616	-150	258.80	--	0.012
25617	TOTAL	276.37	--	0.043
25617	+150	8.77	0.093	--
25617	-150	267.60	--	0.034
25618	TOTAL	265.42	--	0.010
25618	+150	7.92	0.004	--
25618	-150	257.50	--	0.010
25619	TOTAL	247.78	--	0.005
25619	+150	6.38	0.003	--
25619	-150	241.40	--	0.005
25620	TOTAL	278.71	--	<0.005
25620	+150	9.91	<0.001	--
25620	-150	268.80	--	<0.005
25621	TOTAL	289.11	--	0.010
25621	+150	7.11	0.002	--
25621	-150	282.00	--	0.010
25622	TOTAL	307.94	--	<0.005
25622	+150	10.54	<0.001	--
25622	-150	297.40	--	<0.005
Minimum Detection		0.01	0.001	0.005
Maximum Detection		10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

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RENO, NEVADA, U.S.A.

REPORT #: 890358 MA DUNVEGAN EXPL. LTD

Sample	Number	Weight (gm)	Au (mg)	Au (oz/st)
25623	TOTAL	229.08	--	0.006
25623	+150	6.78	0.002	--
25623	-150	222.30	--	0.006
25624	TOTAL	273.69	--	0.031
25624	+150	6.79	0.049	--
25624	-150	266.90	--	0.026
25625	TOTAL	244.48	--	0.005
25625	+150	5.88	0.003	--
25625	-150	238.60	--	0.005
25626	TOTAL	293.52	--	2.119
25626	+150	11.52	5.622	--
25626	-150	282.00	--	1.624
25627	TOTAL	265.58	--	0.076
25627	+150	11.88	0.035	--
25627	-150	253.70	--	0.076
25628	TOTAL	280.38	--	0.074
25628	+150	14.08	0.038	--
25628	-150	266.30	--	0.074
25629	TOTAL	279.26	--	2.161
25629	+150	10.36	4.263	--
25629	-150	268.90	--	1.782
25630	TOTAL	265.70	--	0.011
25630	+150	8.90	0.029	--
25630	-150	256.80	--	0.008
25631	TOTAL	253.37	--	0.006
25631	+150	7.97	0.005	--
25631	-150	245.40	--	0.006
25632	TOTAL	250.83	--	0.006
25632	+150	11.23	0.010	--
25632	-150	239.60	--	0.005
25633	TOTAL	263.68	--	<0.005
25633	+150	8.78	<0.001	--
25633	-150	254.90	--	<0.005
Minimum Detection		0.01	0.001	0.005
Maximum Detection		10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

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ASSAY ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPLORATION LTD.
ADDRESS: 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: AUGUST 15 1989
REPORT#: 890454 MA
JOB#: 890454

PROJECT#: 8904
SAMPLES ARRIVED: AUGUST 14 1989
REPORT COMPLETED: AUGUST 15 1989
ANALYSED FOR: Metallic Au

INVOICE#: 890454 NA
TOTAL SAMPLES: 2
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 1 ROCK

SAMPLES FROM: W. TAYLOR
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPLORATION LTD.

ANALYSED BY: Raymond Chan

SIGNED: Raymond Chan

Registered Provincial Assayer

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

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BRANCH OFFICES
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REPORT #: 890454 MA DUNVEGAN EXPL

Sample Number		Weight (gm)	Au (mg)	Au (oz/st)
25864	TOTAL	113.84	--	0.155
25864	+150	3.34	0.143	--
25864	-150	110.50	--	0.122

Minimum Detection	0.01	0.001	0.005
Maximum Detection	10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

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REPORT #: 890422A MB DUNVEGAN EXPL. LTD.

Sample Number		Weight (gm)	Au (mg)	Au (oz/st)
25743	TOTAL	362.09	--	0.190
25743	+150	12.39	0.224	--
25743	-150	349.70	--	0.178

Minimum Detection	0.01	0.001	0.005
Maximum Detection	10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

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ASSAY ANALYTICAL REPORT

CLIENT: **DUNVEGAN EXPL. LTD**
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: AUGUST 21 1989
REPORT#: 890383A MB
JOB#: 890383A

PROJECT#: 8904
SAMPLES ARRIVED: AUGUST 18 1989
REPORT COMPLETED: AUGUST 21 1989
ANALYSED FOR: Metallic Au

INVOICE#: 890383A NC
TOTAL SAMPLES: 4
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 2 ROCK

SAMPLES FROM: WHITEHORSE
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPL. LTD

ANALYSED BY: Raymond Chan

SIGNED: Raymond Chan

Registered Provincial Assayer

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

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REPORT #: 890383A MB DUNVEGAN RES LTD

Sample Number		Weight (gm)	Au (mg)	Au (oz/st)
25820	TOTAL	139.92	--	0.036
25820	+150	4.62	0.021	--
25820	-150	135.30	--	0.033
25822	TOTAL	126.63	--	0.023
25822	+150	4.93	0.017	--
25822	-150	121.70	--	0.020

Minimum Detection	0.01	0.001	0.005
Maximum Detection	10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

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ASSAY ANALYTICAL REPORT

CLIENT: **DUNVEGAN EXPL. LTD**
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: AUGUST 21 1989
REPORT#: 890422A MB
JOB#: 890422A

PROJECT#: 8904
SAMPLES ARRIVED: AUGUST 18 1989
REPORT COMPLETED: AUGUST 21 1989
ANALYSED FOR: Metallic Au

INVOICE#: 890422A NB
TOTAL SAMPLES: 2
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 1 ROCK

SAMPLES FROM: W. TAYLOR
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPL. LTD

ANALYSED BY: Raymond Chan

SIGNED: Raymond Chan
Registered Provincial Assayer

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

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BRANCH OFFICES
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RENO, NEVADA, U.S.A.

ASSAY ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPLORATION LTD.
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, BC
: V6C 1T2

DATE: AUGUST 22 1989
REPORT#: 890421 AA
JOB#: 890421

PROJECT#: 8904
SAMPLES ARRIVED: AUGUST 8 1989
REPORT COMPLETED: AUGUST 22 1989
ANALYSED FOR: Au

INVOICE#: 890421 NB
TOTAL SAMPLES: 2
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 2 ROCK

SAMPLES FROM: W. TAYLOR
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPLORATION LTD.

ANALYSED BY: Raymond Chan

SIGNED: _____

Registered Provincial Assayer

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

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● FAX (604) 254-5717

BRANCH OFFICES
PASADENA, NFLD.
BATHURST, N.B.
MISSISSAUGA, ONT.
RENO, NEVADA, U.S.A.

REPORT NUMBER: 890421 AA JOB NUMBER: 890421 DUNVEGAN EXPLORATION LTD.

SAMPLE #	Au oz/st
25702	.377
25704	.335

DETECTION LIMIT .005

1 Troy oz/short ton = 34.28 ppm 1 ppm = 0.0001% ppm = parts per million < = less than

signed: _____

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
1988 TRIUMPH ST.
VANCOUVER, B.C. V5L 1K5
● (604) 251-5656
● FAX (604) 254-5717

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ASSAY ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPL. LTD
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: AUGUST 21 1989
REPORT#: 890383 MA
JOB#: 890383

PROJECT#: 8904
SAMPLES ARRIVED: AUGUST 18 1989
REPORT COMPLETED: AUGUST 21 1989
ANALYSED FOR: Metallic Au

INVOICE#: 890383 NA
TOTAL SAMPLES: 4
REJECTS/PULPS: 90 DAYS/1 YR
SAMPLE TYPE: 4 ROCK

SAMPLES FROM: WHITEHORSE
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPL. LTD

ANALYSED BY: Raymond Chan

SIGNED: Raymond Chan

Registered Provincial Assayer

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

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REPORT #: 890383 MA DUNVEGAN EXPLORATION LTD.

Sample	Number	Weight (gm)	Au (mg)	Au (oz/st)
25815	TOTAL	260.61	--	<0.005
25815	+150	6.81	<0.001	--
25815	-150	253.80	--	<0.005
25816	TOTAL	256.44	--	<0.005
25816	+150	6.44	<0.001	--
25816	-150	250.00	--	<0.005
25820	TOTAL	243.02	--	<0.005
25820	+150	7.52	<0.001	--
25820	-150	235.50	--	<0.005
25821	TOTAL	269.71	--	1.412
25821	+150	7.71	3.411	--
25821	-150	262.00	--	1.074
25822	TOTAL	259.74	--	<0.005
25822	+150	5.74	<0.001	--
25822	-150	254.00	--	<0.005

Minimum Detection	0.01	0.001	0.005
Maximum Detection	10000.00	1000.000	1000.000

< = Below Limit is = Insufficient Sample ns = No sample > = Over Limit

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GEOCHEMICAL ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPLORATION LTD.
ADDRESS: 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: AUGUST 11 1989
REPORT#: 890413 GA
JOB#: 890413

PROJECT#: 8904
SAMPLES ARRIVED: AUGUST 3 1989
REPORT COMPLETED: AUGUST 11 1989
ANALYSED FOR: Au (FA/AAS) ICP

INVOICE#: 890413 NA
TOTAL SAMPLES: 10
SAMPLE TYPE: 10 ROCK
REJECTS: SAVED

SAMPLES FROM: W. TAYLOR
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPLORATION LTD.

ANALYSED BY: VGC Staff

SIGNED: Jaime C. Wong

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

MAIN OFFICE
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● FAX (604) 254-5717

BRANCH OFFICES
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REPORT NUMBER: 890413 GA JOB NUMBER: 890413 DUNVEGAN EXPLORATION LTD.

SAMPLE #	Au ppb
25830	20
25831	20
25832	20
25833	30
25834	nd
25835	nd
25836	260
25837	20
25838	nd
25839	nd

DETECTION LIMIT 5
nd = none detected -- = not analysed is = insufficient sample

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GEOCHEMICAL ANALYTICAL REPORT

CLIENT: DUNVEGAN EXPL. LTD
ADDRESS: C/O 205 - 470 Granville St.
: Vancouver, B.C.
: V6C 1T2

DATE: AUGUST 21 1989
REPORT#: 890421 GA
JOB#: 890421

PROJECT#: 8904
SAMPLES ARRIVED: AUGUST 8 1989
REPORT COMPLETED: AUGUST 21 1989
ANALYSED FOR: Au (FA/AAS) ICP

INVOICE#: 890421 NA
TOTAL SAMPLES: 54
SAMPLE TYPE: 54 ROCK
REJECTS: SAVED

SAMPLES FROM: W. TAYLOR
COPY SENT TO: WHITEHORSE/ALTA/VANCOUVER

PREPARED FOR: DUNVEGAN EXPL. LTD

ANALYSED BY: VGC Staff

SIGNED: _____

GENERAL REMARK: None

VGC VANGEOCHEM LAB LIMITED

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BRANCH OFFICES
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REPORT NUMBER: 890421 GA JOB NUMBER: 890421 DUNVEGAN EXPL. LTD

SAMPLE #	Au ppb
25637	2600
25638	6
25640	10
25644	20
25645	nd
25646	nd
25647	nd
25648	nd
25649	30
25650	nd
25702	>10000
25704	>10000
25706	8800
25708	30
25709	30
25710	nd
25711	nd
25712	10
25713	nd
25714	nd
25715	nd
25716	nd
25717	nd
25718	nd
25719	30
25720	40
25721	20
25722	nd
25723	nd
25724	nd
25725	20
25726	nd
25727	nd
25728	nd
25729	nd
25730	nd
25731	20
25732	nd
25733	40
DETECTION LIMIT	5

nd = none detected -- = not analysed is = insufficient sample

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SAMPLE #	Au ppb
25734	1160
25735	nd
25748	nd
25749	nd
25840	nd
25841	nd
25842	nd
25843	nd
25844	60
25845	nd
25846	nd
25847	nd
25848	nd
25862	740
25863	940

DETECTION LIMIT 5

nd = none detected -- = not analysed is = insufficient sample