MAP NO.: 105 C 5

ASSESSMENT REPORT X
PROSPECTUS
CONFIDENTIAL X
OPEN FILE

DOCUMENT NO: 092919
MINING DISTRICT: ~~DIAMOND DRILLING~~ Whitehorse
TYPE OF WORK: A.D.

REPORT FILED UNDER: DUNVEGAN EXPLORATION

DATE PERFORMED: JUNE-AUGUST, 1990

DATE FILED: JAN 17, 1991

LOCATION: LAT.: 60°25'N

LONG.: 133°33'W

AREA: SQUANGA LAKE

VALUE $:

CLAIM NAME & NO.: TOG 1-24, 63-76
GOT 1-29
POT 1-2
PAL 1-4

WORK DONE BY: M.P. WEBSTER

WORK DONE FOR: DUNVEGAN EXPLORATION LIMITED

DATE TO GOOD STANDING:

REMARKS: THE REPORT DETAILS A BULK SAMPLING AND A DIAMOND DRILLING PROGRAM. THE BULK SAMPLE CONSISTED OF HAND COBBED MATERIAL. RESULTS WERE 3.16 OPT AU FROM THE 80 KILO SAMPLE. EIGHT HOLES WERE DRILLED FOR A TOTAL OF 262.5 METERS. RESULTS INDICATE THAT THE VEIN STRUCTURE CONTINUES AT DEPTH. GOLD IN THE CORE IS SIMILAR IN STYLE TO THAT ON SURFACE. IT IS STATED THAT THE MINERALIZATION IS SIMILAR TO THE ATLIN CAMP IN B.C. AND TO THE MOTHERLODE DISTRICT IN CALIFORNIA.

Indian and Northern Affairs Canada | Affaires indiennes et du Nord Canada

TRANSMITTAL FORM

OFFICE OF THE REGIONAL MANAGER MINERAL RIGHTS JAN 18 1991 WHITEHORSE YUKON TERRITORY

M.R. file no.

R.M.M.R. file no.

Date forwarded 17 Jan 91

From ▶ Mining Recorder at: Whitehorse

To ▶ Regional Manager, Mineral Rights at Whitehorse, Y.T.

For action are:

- ☐ NEW APPLICATION FOR PLACER LEASE TO PROSPECT — Name
- ☐ RENEWAL APPLICATION PLACER LEASE TO PROSPECT — Name — Lease no.
- ☐ AFFIDAVIT OF EXPENDITURE ON PLACER LEASE — Name — Lease no.
- ☐ SECURITY DEPOSIT
- ☐ FINANCIAL ABILITY
- ☐ ASSIGNMENT OF PLACER LEASE NO. — From — To
- ☐ GROUPING APPLICATION UNDER SEC. 52(2) PLACER MINING ACT. — Owner
- ☐ DIAMOND DRILL LOGS — Claims — Claim sheet no.
- ☑ QUARTZ ASSESSMENT REPORT — Claims: TOG, GOT, PAL — Claim sheet no.

Please Send 1 copy (numbered) back To This office

Type of report: D.D + Sampling

Submitted by: Dunvegan Expl.

Cls. work performed on: TOG, GOT, PAL

$ req. for ren. application: PHYSICAL WORK EXCEEDS $ REN. FOR RENEWAL.

Thanks.

M Southwick
Signature

REPLY ACTION

Date returned

092519

Signature

802-37 (7-88)

OFFICE OF THE REGIONAL MANAGER
MINERAL RIGHTS
JAN 18 1991
WHITEHORSE
YUKON TERRITORY

DIAMOND DRILLING AND BULK SAMPLING
Assessment Report on the
TOG PROPERTY
1990

Latitude	60 25'00"N
Longitude	133 33'20"W
NTS	105 C/5

Whitehorse Mining District
Yukon Territory

092919

for

Dunvegan Exploration Ltd.
Box 4063, Whitehorse
Yukon, Y1A 3S9

by

M.P. Webster, B.Sc.,
November 13, 1990

RECEIVED
JAN 17 1991
MINING
RECORDERS OFFICE
WHITEHORSE, Y.T.

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $_____.

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

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INTRODUCTION

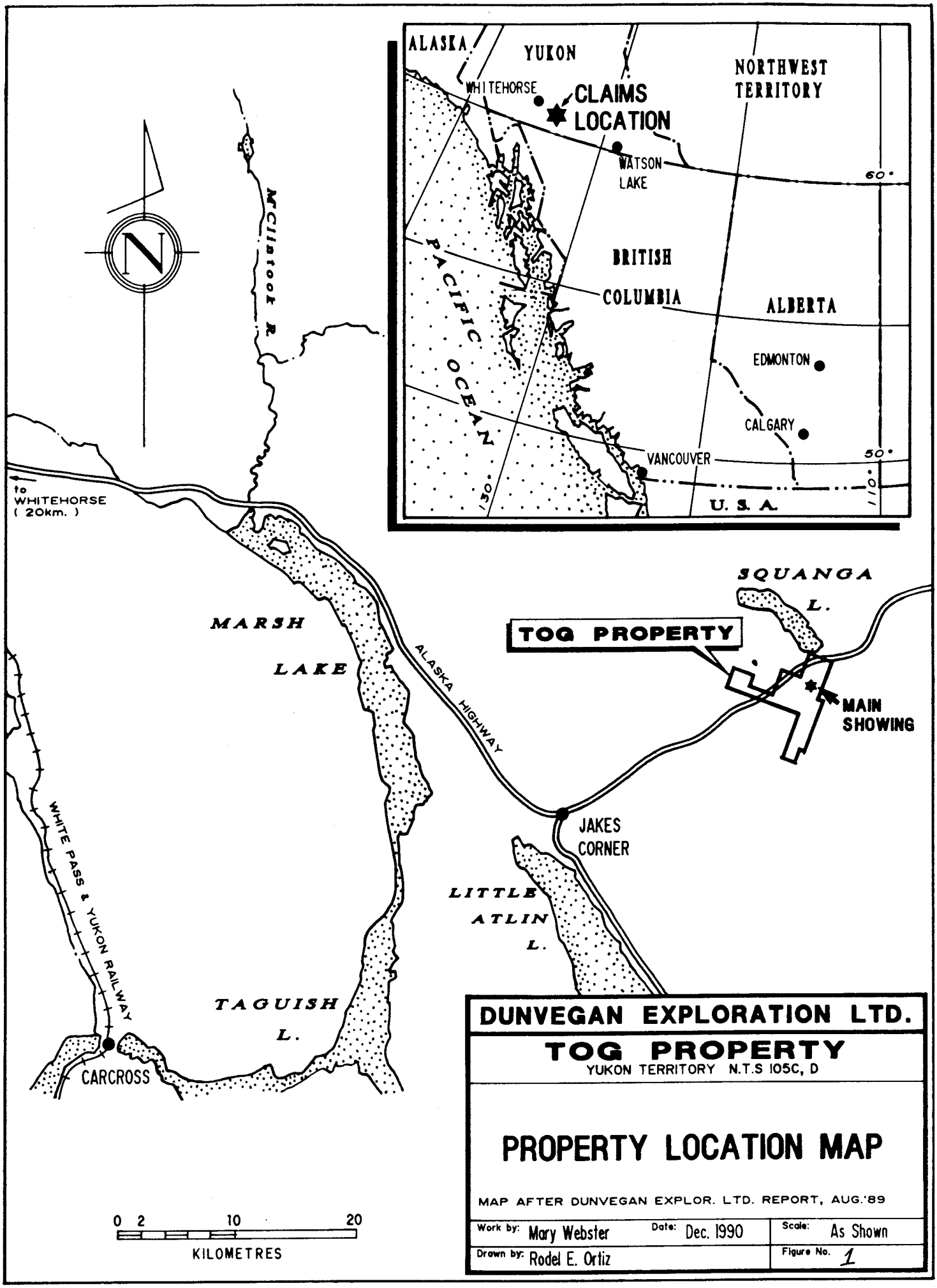
Dunvegan Exploration Ltd. of Whitehorse, Yukon continued exploration on the TOG Property in the 1990 field season by way of bulk sampling and diamond drilling.

This report summarizes previous geological reports and papers of the property and describes the 1990 exploration progress and results. Work was supervised by M.P. Webster with assistance from Rob MacIntyre and Gordon McLeod.

LOCATION AND ACCESS

The TOG Property is located on the Alaska Highway approximately 88 km southeast from Whitehorse, Yukon. The claim block extends south from Squanga Lake to Marsh Lake and crosses the Alaska Highway at the southernmost limit of Summit Lake. The claims are located at latitude 60°25'00"N, longitude 133°37'20"W and NTS 105C/5.

Access to the claims is by way of the Alaska Highway, an approximate distance of 100 km southeast from Whitehorse, 24 km northeast from Jakes Corner, to a 4-wheel drive summer property access road which exits southeast from the Alaska Highway. The property road continues approximately 5.5 km to the main showing of the TOG property. A cat trail approximately 1.5 km in length was extended northwest from the main showing to a small pond and water supply for the 1990 drill program. A new cat road was excavated parallel to and approximately 30 metres south of the main showing for drill pads. The property access road and claims are shown on Figures 1 and 2.



DUNVEGAN EXPLORATION LTD.

TOG PROPERTY

YUKON TERRITORY N.T.S 105C, D

PROPERTY LOCATION MAP

MAP AFTER DUNVEGAN EXPLOR. LTD. REPORT, AUG.'89

Work by: Mary Webster	Date: Dec. 1990	Scale: As Shown
Drawn by: Rodel E. Ortiz		Figure No. 1

PHYSIOGRAPHY AND VEGETATION

The physiography of the TOG property is comprised of a series of steeply sloping, northwest trending ridges drained by northwest draining creeks. Overburden depths vary from a few centimetres along ridge crests to unknown depths in the valley bottoms. The ridges gradually flatten to gently sloped, flat and hummocky terrain near Seaforth Creek to the east and Marsh Lake to the south.

Vegetation comprises Jack pine and poplar forests with moss covered outcrop on the ridges to dense forest and buckbush along the perifery of the property.

CLIMATE

Located within the dry subartic region of Southeastern Yukon, the property is largely free from snowfall from May through October. Colder temperatures experienced in January are the only weather conditions considered to potentially hamper year round operations. The annual rainfall is approximately 40 cm and water supply is available as surface runoff, springs and small ponds on the property. Squanga, Summit and Marsh Lakes may provide larger sources of water if required.

PROPERTY

The TOG Property is wholly owned by Dunvegan Exploration Ltd. and is comprised of 125 claims (Figure 2). The property claims are listed in Table 1 below.

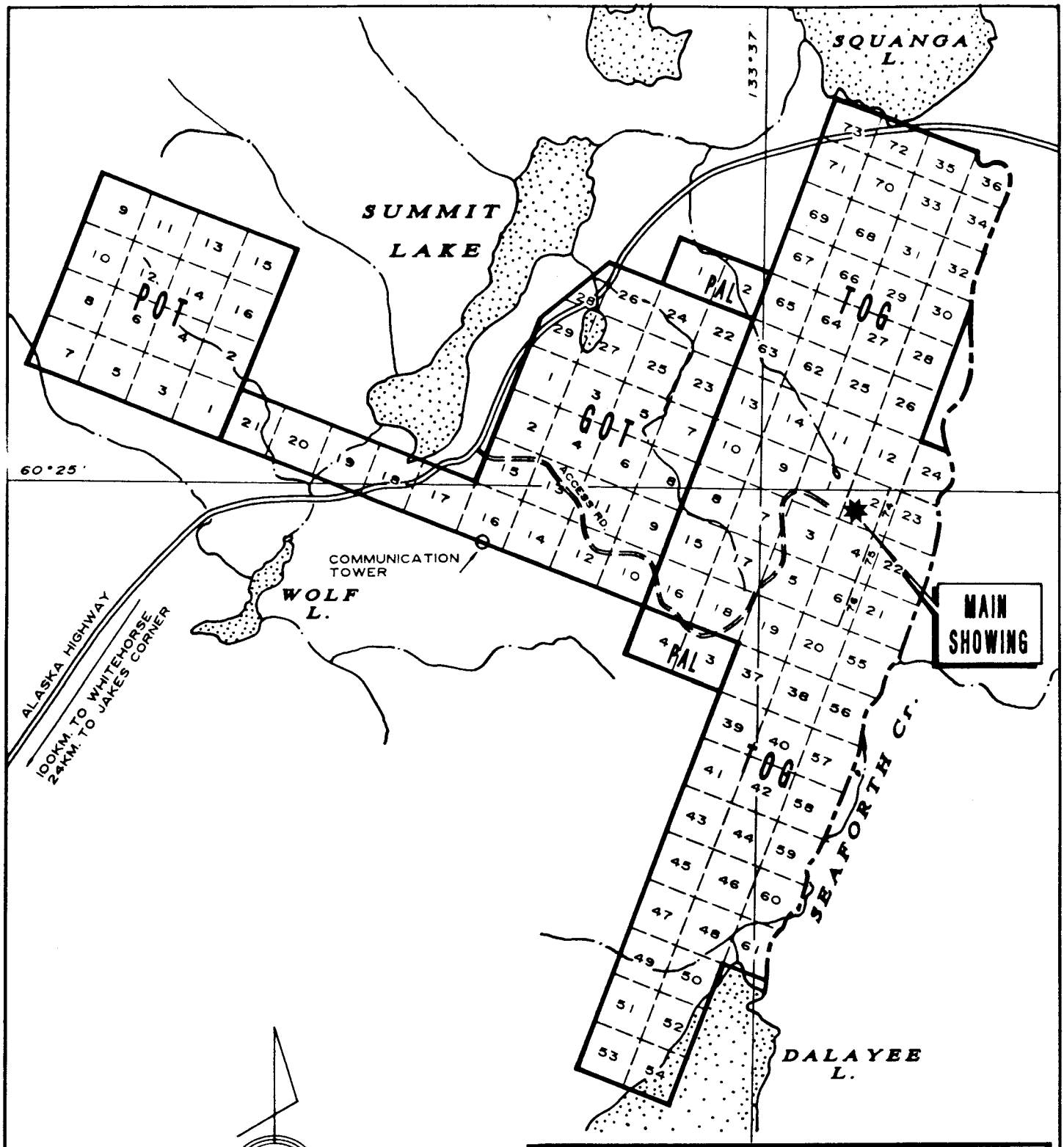
TABLE 1

GOOD STANDING QUARTZ CLAIMS OWNED BY Dunvegan Exploration Ltd.

GRANT	CLAIM NAME	LAPSE DATE
YA82536	TOG 1	97.07.03
YA82537	TOG 2	97.07.03
YA82538	TOG 3	97.07.03
YA82539	TOG 4	97.07.03
YA82540	TOG 5	97.07.03
YA82541	TOG 6	97.07.03
YA82542	TOG 7	97.07.03
YA82543	TOG 8	93.07.03
YA82544	TOG 9	97.07.03
YA82545	TOG 10	97.07.03
YB20446	TOG 11	97.07.18
YB20447	TOG 12	97.07.18
YB20448	TOG 13	97.07.18
YB20449	TOG 14	97.07.18
YB20450	TOG 15	93.07.18
YB20451	TOG 16	97.07.18
YB20452	TOG 17	93.07.18
YB20453	TOG 18	97.07.18
YB20454	TOG 19	97.07.18
YB20455	TOG 20	97.07.18
YB20456	TOG 21	97.07.18
YB20457	TOG 22	97.07.18
YB20458	TOG 23	97.07.18
YB20459	TOG 24	97.07.18
YB20460	GOT 1	92.07.18
YB20461	GOT 2	92.07.18
YB20462	GOT 3	92.07.18
YB20463	GOT 4	92.07.18
YB20464	GOT 5	96.07.18
YB20465	GOT 6	92.07.18
YB20466	GOT 7	96.07.18
YB20467	GOT 8	92.07.18
YB20468	GOT 9	92.07.18
YB20469	GOT 10	96.07.18
YB20470	GOT 11	92.07.18
YB20471	GOT 12	96.07.18
YB20472	GOT 13	92.07.18
YB20473	GOT 14	96.07.18
YB20474	GOT 15	92.07.18
YB20475	GOT 16	96.07.18
YB20476	POT 1	92.07.18
YB20477	POT 2	92.07.18

GOOD STANDING QUARTZ CLAIMS OWNED BY Dunvegan Exploration Ltd.

GRANT#	CLAIM NAME	LAPSE DATE
YB25449	TOG 63	95.02.28
YB25450	TOG 64	95.02.28
YB25451	TOG 65	95.02.28
YB25452	TOG 66	95.02.20
YB25453	TOG 67	95.02.28
YB25454	TOG 68	95.02.28
YB25455	TOG 69	95.02.28
YB25456	TOG 70	95.02.28
YB25457	TOG 71	95.02.28
YB25458	TOG 72	95.02.28
YB25459	TOG 73	95.02.28
YB25460	GOT 17	95.02.28
YB25461	GOT 18	95.02.28
YB25462	GOT 19	95.02.28
YB25463	GOT 20	95.02.28
YB25464	GOT 21	95.02.28
YB25465	GOT 22	95.02.28
YB25466	GOT 23	95.02.28
YB25467	GOT 24	95.02.28
YB25468	GOT 25	95.02.28
YB25469	GOT 26	95.02.28
YB25470	GOT 27	95.02.28
YB25471	GOT 28	95.02.28
YB25472	GOT 29	95.02.28
YB26873	PAL 1	95.10.29
YB26874	PAL 2	95.10.29
YB26875	PAL 3	95.10.29
YB26876	PAL 4	95.10.29
YB35441	TOG 74	95.10.15
YB35442	TOG 75	95.10.15
YB35443	TOG 76	95.10.15



DUNVEGAN EXPLORATION LTD.

TOG PROPERTY

YUKON TERRITORY N.T.S. 105C, D

CLAIM MAP

MAP AFTER DUNVEGAN EXPLOR. LTD. REPORT, AUG. '89

Work by: Mary Webster	Date: Dec. 1990	Scale: As Shown
Drawn by: Rodel E. Ortiz		Figure No. 2

PROPERTY HISTORY

Work on the TOG property includes prospecting, geological mapping, soil and rock geochemistry, geophysics, trenching, road construction, bulk sampling and diamond drilling. Although previous work programs include a variety of exploration techniques, detailed and follow-up exploration should be completed in order to develop targets for diamond drilling.

Claims were first staked in 1972 by Gordon McLeod on the discovery of a small pod of massive chromite within ultramafic rocks. In 1979, geological mapping was conducted by Archer Cathro and Associates Ltd. and microprobe analysis, done by Michael Marchand the Whitehorse District Geologist, proved the Cr_2O_3 content to be 49.4%. The gold potential of the property was reported by G. Yeo (Noranda Exploration Co. Ltd.) as visible gold in siliceous rock during a property visit in September 1982. In 1983, Jeff Foley reported 0.700 oz per ton gold in a pan concentrate sample from Seaforth Creek (U.S. Bureau of Mines, University of Alaska).

The main TOG showing was discovered in 1984 by prospecting. During 1984, five pits were blasted and hand mucked to expose the main TOG vein. S.B. Ballentine of the Geological Survey of Canada visted and sampled the property in 1985. Ballentyne reported sample assays up to 0.262 oz. per ton, gold fineness of 939.7 (93.5 Au and 6% Ag) and suggested that the mineralization is comparable to the Motherlode or bonanza style of mineralization. In 1987, the Whitehorse District Geologist, Trevor Bremner sampled the main vein and reports values up to 0.244 oz. per ton gold. Newmont Exploration also sampled the pits and reported low gold values. The 5.5 km long access road was excavated. In October 1988, David Shaw of Resources Research Group examined the property, collected samples which returned values of 0.039 to 31.651 oz. per ton gold and outlined the exploration program for 1989.

Magnetometer and VLF/EM geophysical surveys, geological mapping and detailed sampling of the main showing was conducted in 1989. The main quartz main was sampled returning values up to 41.482 oz. per ton gold in a grab sample and 2.119 oz. per ton gold over 0.46 metres in a chip sample. Over a 26 metre strike length, visible gold was identified in 13 samples and coincident geophysical conductors suggested that the vein continued for at least 140 metres along strike. The geologic and structural setting of the deposit including listwaenitic alteration was found to be similar to Motherlode or bonanza style of mineralization also described in the Atlin Gold mining camp located 100 km to the south.

During June and July of 1990, a four man crew conducted bulk sampling on the main vein, a total of 250 lbs of material was selectively mined, hand cobbed and hand sorted into highgrade visible gold bearing ore (No.1) and ore considered to be auriferous (No.2). A total assay returned 3.16 oz.per ton gold sample. A 80 kg. combined No.1 and No.2 ore sample submitted to Northern Analytical Laboratories for a bulk gold assay.

In August a second bulk sample test done by Bacon Donaldson and Associates, Vancouver. This scoping cyanidation test on 26 kg. of Dunvegan No.1 ore indicated a possible recovery of 70-80% gold by gravity concentration alone and returned an average metallic sieve assay of 56.81 gl tonne gold and 112.58 gl tonne silver.

Diamond drilling was done on the main showing in September and October. A total of 262.5 metres (860.8 ft.) was drilled in 8 HQ holes. This drill program confirmed the main vein to dip 25 to 30 degrees south, extend greater than 90 metres along strike and continue down dip a length of greater than 100 metres. The deposit remains open at depth and along strike. The deposit may include series of subparallel veins as a second vein was intersected above the main vein. Visible gold was noted in hole 5-90 and returned assays up to 1.547 oz. per ton gold over 0.18 m (0.6 ft.)

GEOLOGY

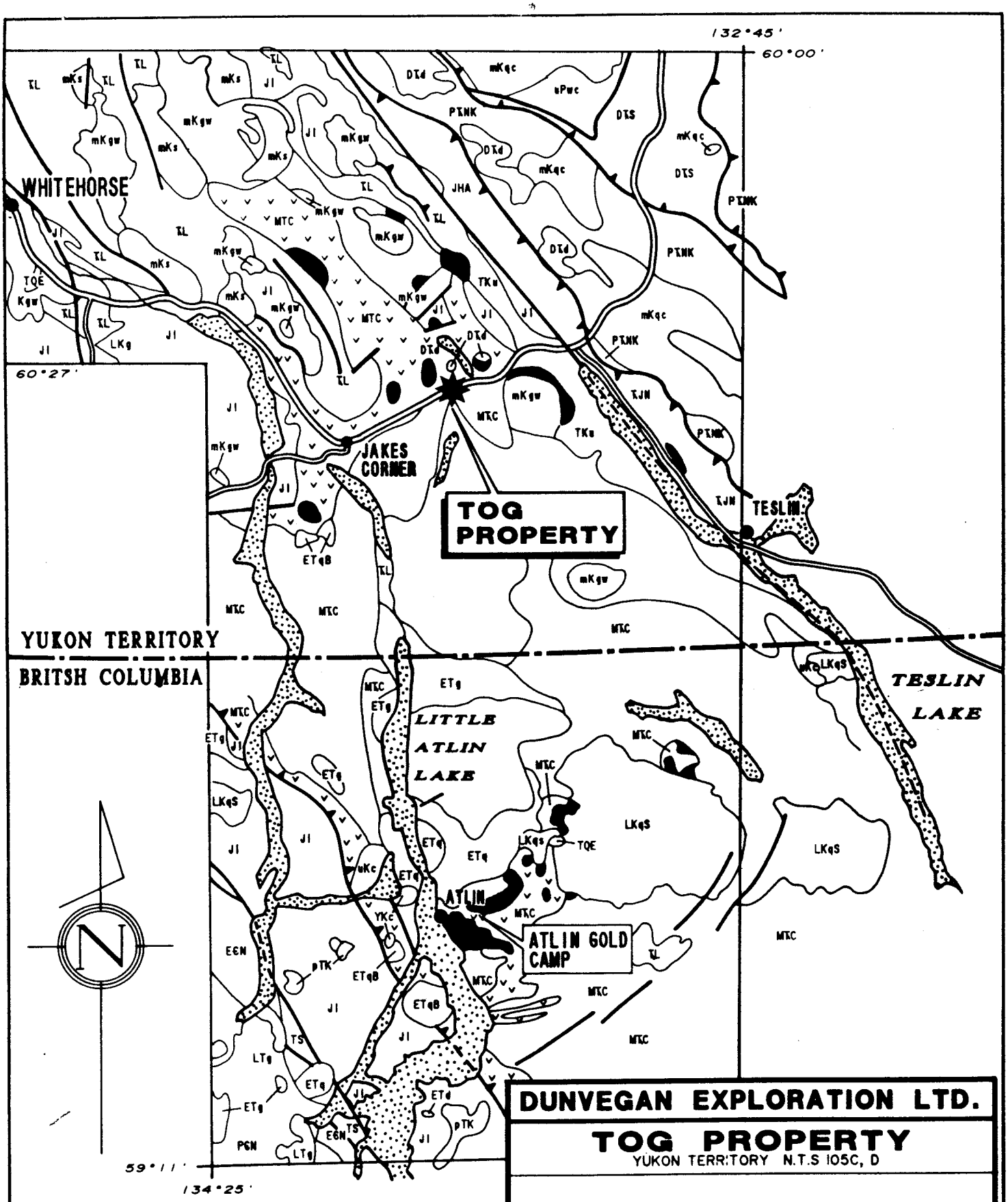
Regional Geology

The TOG property is located at the contact between the Mississippian - Upper Triassic Cache Creek oceanic volcanic - sedimentary group and the Upper Triassic - Lower Jurassic Lewes River sedimentary and arc volcanic assemblages. Oceanic ultramatic units of the Cache Creek group range from pods to lenticular bodies tens of kilometers in length and are considered to be related to gold mineralization in the Atlin Gold mining camp (Figure 3). The property lies within the Whitehorse Trough which is bounded on the east by the northwest trending Teslin Fault System. Regional tectonic lineaments trend northwest and a Mid-Cretaceous hornblende granodioule plug lies approximately 20 kilometres west of the property.

Property Geology

The surface property geology was mapped by W. Taylor and D. Shaw and described in 1989 geological report. In the 1989 report, most lithologic contacts are reported to be tectonic and lithologics were described in four catagories including volcanics/tuffs, cherts, chloritic mafic lenses of gabbro, pyroxenite and diorite, and ultramafics. Two alteration assemblagis including carbonatization/silicification and chrome-mica carbonatization of ultramafic rocks were described.

The property is largely overlain by moderately chloritic, fine grained volcanic flows and tuffs. This unit is metamorphosed to greenschist facies, has a well developed conjugate joint fracture system and may include foliated boudins of white quartz. To the west and north of the main showing, and overlying the main quartz vein, carbonatized ultramatic units are commonly brown and weathered. Strong tectonic contacts of the ultramafics are strongly foliated and serpentinized.



DUNVEGAN EXPLORATION LTD.

TOG PROPERTY

YUKON TERRITORY N.T.S 105C, D

REGIONAL GEOLOGY MAP

MAP AFTER DUNVEGAN EXPLOR. LTD. REPORT, AUG.'89, MODIFIED FROM G.S.C. OPEN FILE 1565

Work by: Mary Webster	Date: Dec. 1990	Scale: As Shown
Drawn by: Rodel E. Ortiz		Figure No. 3

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.
JHA	Hall:Carbonaceous shale,siltstone,greywacke,conglomerate, Marine.

UPPER TRIASSIC - LOWER JURASSIC

TJN	Nicola:'Arc volcanics and sediments'.

UPPER TRIASSIC

TL	Lowes 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 alkaline 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

PPMK	Misutlin: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

uPvc	Windermere:Mainly clastic 'continental margin' sediments.

STRATIGRAPHIC SYMBOLS

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

LEGEND FOR FIG. No. 3

Coincident geophysical conductors and a strong alteration zone, at least 150 metres wide of carbonatization/ silicification alteration are located approximately 300 meters west of the main showing. Chert units occur throughout the property as lenses or boudins and within a northwest striking fault breccia zone. This silicified fault zone extends at least 75 m along strike between altered volcanic and chert units to the north and serpentinites to the south and is parallel to the strike of the main showing.

Lithology (Figures 5-9)

In this report, the lithological units described in the 1989 Geological Report have been adopted with the addition of massive vein quartz and dykes as type lithologies. Alteration has been confined to carbonitization, silicification, choritization and sulphidization. Abbreviated Lithologic names appear on figures and the 1989 numeric geologic code for the property is referenced in the description of units below.

Serpentinite (Unit 4, 1989)

Dark Green, very fine grained to amorphous, occasionally pyritic.Possibly strongly serpentinized, foliated peridotile. Frequently fractured with orangy-brown iron oxide fracture coatings. Intermittently pervasively altered to mottled texture. Contacts are pervasively iron carbonate altered serpentinite and usually gradatimal over centimetres to metres. May contain narrow tulcose shears. Moderate to very good core recovery, less core recovered in fracture zones.

Iron Carbonate Altered Serpentinite (Unit 4A, 1989)

Orange-brown, fine to medium grained, loosely to well consolidated, locally brecciated with fine grained white quartz or chalcedony filled fractures, fine grained disseminated syrite ranging from 5-15%, pervasively carbonatized serpentinite. Local whitish-grey falcose fractures, moderate to strong foliation. Most frequently occurs adjacent to quartz vein. Contacts are gradational from serpentinite but sharp to massive quartz. Accissory minerals include pyrite, rare galena and magneta, chlorite and fuschite.

Massive Quartz

White to smokey grey, medium to coarse grained, frequent graphite (moderately to weakly pyritic) fractures in smokey grey quartz. Massive white "bull" quartz may contain inclusions (centimetres) of serpentinite and altered serpentinite. Very fine grained greyish chalcedony locally infills fractures. Fuschite and minor galena, magnetite, pyrite, chalcopyrite and sphalerite may be dissimined in quartz or along fractures. Visible gold occurs in smokey grey, graphitic quartz near lower, commonly brecciated contact of main vein.

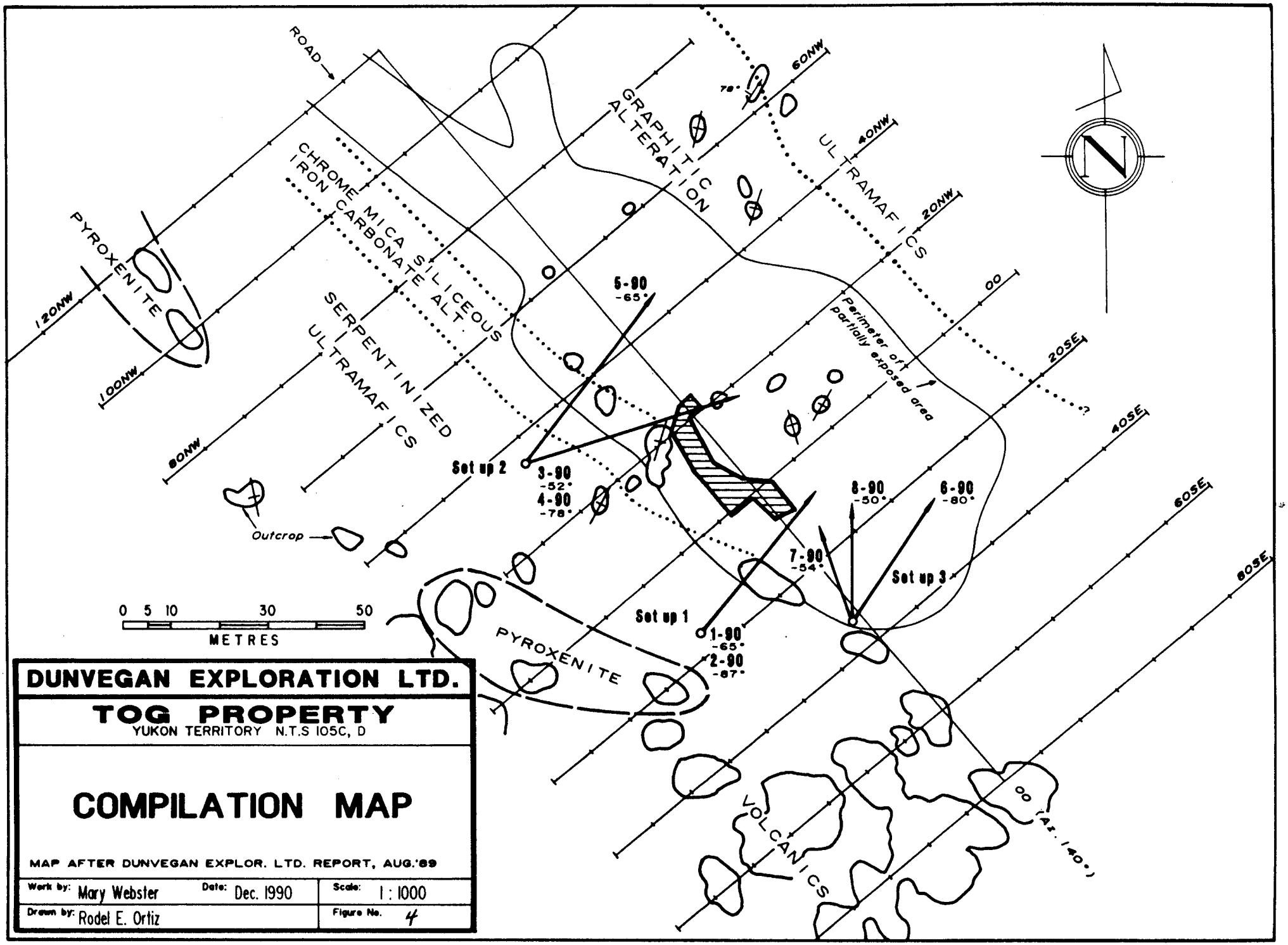
Core recovery is low in fractured and becciated zones but very good in massive quartz.

Dyke (Rhyolitic)

Orange brown to brown, fine to medium grained, bleached, sparcely pyritic, chalcopyritic wakly cloritic rhyolitic dyke. Occurs consistantly along lower contact of main quartz vein. Contact to quartz is sharp, locally brecciated and infilled with grey silica or chalcedony, moderate to strongly fractured. Locally moderate to strongly pervasively silicified over 10-30 centrimeters. Accessory minerals include pyrite, chalcopyrite, galena, rare sphalerite. Core recovery very poor in fracture zones to good.

Argillite

Black to very dark green, graphitic, very fine to fine grained argillite. Locally fractured with graphitic slickensides. Infrequent silica flooded breccia zones centimetres to metres wide. Weak to strongly pervasive cloritization. Moderate to strong foliation. Very fine to medium grained disseminated enhedial pyrite; 10-20%.



DUNVEGAN EXPLORATION LTD.

TOG PROPERTY

YUKON TERRITORY N.T.S 105C, D

COMPILATION MAP

MAP AFTER DUNVEGAN EXPLOR. LTD. REPORT, AUG.'89

Work by: Mary Webster	Date: Dec. 1990	Scale: 1 : 1000
Drawn by: Rodel E. Ortiz		Figure No. 4

BULK SAMPLING PROGRAMS

Two bulk samples of hand cobbed ore from the Main Showing of the Tog Property were tested for gold recovery by (1) grind-jig-amalgamation and (2) grind-jig-cyanidation processes.

(1) The first bulk sample contained approximately a 50:50 ratio of number 1 and number 2 ore from the Main Showing and weighed 80 kg. The sample was submitted to Northern Analytical laboratories in Whitehorse for crushing, jig concentration and tabling. The table concentrate was then ground to 200 mesh and the gold amalgamated with mercury. The gold was separated from the amalgam by dissolving the mercury with nitric acid then cupelled with lead.

The total assay results were 3.16 oz. per ton gold and fractional recoveries were as follows;

FRACTION	ASSAY	WEIGHT	g AU
Concentrate	82.44%	7.034 g	5.799 g
Mids	443.8 gl+	1057 g	0.472 g
Tails	30.45 gl	78936 g	2.403 g

Refer to Appendix 1

(2) Bacon Donaldson and Associates Ltd., Vancouver performed a single scoping test on the cyanidation potential of the No.1 ore. Approximately 26 kg. of No.1 grade gold ore was provided for a single grind-jig-cyanidation test utilizing a fine primary grind (70% 200 mesh) as the starting point in this evaluation of the ore.

The following discussion of results was submitted to the company by Bacon Donaldson and Associates;

SAMPLE PREPARATION

A single 20 litre pail of dry, minus 15 cm ore was received on August 8, 1990 at BDA's laboratory facilities in Richmond, B.C. It was noticed immediately that the ore contained significant sulphide and oxide (iron oxide, copper oxide) mineralization, but no assays were conducted to identify the specific elements at this time. The ore was jaw crushed to minus 1/4 inch, riffle-split (one half saved at this size) and the remainder was cone crushed to minus 6 mesh. From the minus 6 mesh material, samples were prepared to testwork.

HEAD ASSAY

A head assay was conducted on a 350 gram sample of the cone crushed ore. Because of the suspected high grade, free gold nature of the ore, the assay was conducted by the metallic sieve method. This method involves pulverizing the entire 350 g sample, then screening the pulp at 150 mesh to scalp off the oversize (the pulverizing is done to a degree that ensures there will be less than 25 g of + 150 mesh remaining). The entire + 150 mesh fraction is assayed for Au/Ag, while the -150 mesh fraction is sampled and assayed in duplicate. This assay method is based on the fact that any coarse gold in the sample will flatten rather than pulverise and will therefore report to the +150 mesh fraction (which is assayed entirely).

All assay numbers are factored together to give the head assay for the ore. By the matallic sieve method, the Dunvegan No.1 ore assayed 56.81 g/tonne Au and 112.58 g/tonne Ag (1.66 oz/ton Au, 3.28 oz/ton Ag). The complete details of the metallic sieve assay are appended.

GRIND-JIG-CYANIDATION

A 2000 gram sample of the Dunvegan ore was ground in a laboratory rod mill to 71% minus 200 mesh. The ground slurry was then passed through a 1" x 1" Denver, lab-scale jig to produce a rougher high concentrate of ~125 grams. This rougher concentrate was then upgraded further by hand panning to produce a small (6 g) sample which was assayed in its entirety. BDA's experience with laboratory processing has indicated that this rougher-jig, cleaner-handpan procedure closely approximates the results obtained with a full-scale, two stage gravity processing operation.

Visual observation of the hand panned jig concentrate indicated that it contained significant free gold, with an approximate top size of 48 mesh. The hand panned jig concentrate assayed 7372 g/tonne Au (215 oz/ton Au) and recovered 49% of the gold in the sample.

The rougher jig tailings and the hand panning tailings were combined, dewatered to 400% solids and leached in a vertical agitation cyanide test for 48 hours. The test began at an initial cyanide concentration of 2.0 g/l NaCN, with the free cyanide level maintained at 1.0 g/l NaCN for the duration of the test.

Including the recovery from jigging, the grand-jig-cyanidation test recovered 70.6% Au. The extraction rate for the test is graphed in Figure 1. It can be seen from the graph that the ore was still leaching when the test was ended after 48 hours. In fact, the extraction rate has not begun to level off and depicts a straight line from time zero. This suggests that further leaching would extract more gold. At the current (straight line) leaching rate, gold extraction would reach 90% within another 48 hours of leaching.

Cyanide consumption for this test was very high at 6.4 kg. NaCN per tonne of ore. Reducing power, a qualitative indication of the dissolved contaminants in the cyanide solution, was also fairly high. To investigate this, the pregnant cyanikde solution was analyzed for dissolved copper and zinc, two of the more common cyanicides (cyanide consumers). These metals were found to be dissolved in the pregnant solution at levels of 1.78 g/l Cu and 0.087 g/l Zn. These levels suggest that dissolition of copper by the leach solution was responsible for many of the poblems experienced with this leach (slow leach rate for gold, high cyanide consumption) as cyanide solution will preferentially dissolve copper before dissolving gold).

RECOMMENDATIONS

As a first attempt of the single grind-jig-cyanide test are promising; (1) jig recovery was very high; (2) the ore is indicated to be leachable by cyanide. However, the ore also contains significant values of copper (amd other?) mineralization and this adversely affects the leaching of gold by consuming cyanide and by slowing the gold extraction rate. These problems are serious enough that other processing options should be analyzed.

FLOTATION

A grind-jig-bulk flotation test utilizing a similar grind as the cyanide test would quickly indicate if flotation holds promise. If the gold values are either "free or associated with the sulphide minerals, then it should be possible to produce a bulk sulphide flotation concentrate that recovers most of the gold values.

Further testwork would involve cleaning flotation to upgrade the bulk concentrate into a marketable flotation concentate.

GRAVITY CONCENTRATION

The results of the jig/hand-panning procedure are very promising.
As the operating costs of a gravity processing plant are low compared to those of a cyanide or flotation plant, it is worthwhile to investigate the possibilities optimizing gravity concentration. It may be possible to achieve 70 to 80% gold recovery by gravity concentration alone. There are many specialized gravity concentration techniques available besides jigging (Knelson concentrator, Falcon concentrator, etc.). Optimization would include testing some of the various gravity concentration techniques while varying the primary grind and the blend of the ore.

MINERALOGY AND GEOLOGY

It is highly recommened that more effort be spent at this time to define the mode of the gold occurrence, the other mineralization in the ore, and the variability of the ore grade across the deposit. The sample BDA tested was acknowledged to be hand-picked, high grade sample. Future testwork should be conducted on average run-of-mine ore.

BACON DONALDSON & ASSOCIATES LTD.
Ed Henrioulle, B.A. Bc.
Dr. M.J.V. Beattie, P. Eng.

Refer to Appendix 2

DIAMOND DRILL PROGRAM

A total of 860.8 ft. (262.5 m) HQ core was drilled in eight holes on the TOG property between September 24 and October 4, 1990. The holes were drilled from three set-ups to test the continuity of grade and structure of the Main Showing.

Holes 1-90 and 2-90 intersected the main vein approximately 15 and 30 metres respectively, down dip from the 1989 surface sample 25860 which returned a value of 4.718 oz. per ton gold. Holes 3-90 and 4-90 also intersected the main vein approximately 15 and 30 metres respectively, down dip from the 1989 surface sample 25747 that assayed 41.482 oz. per ton gold (Figure 6). Hole 5-90 tested the northwest extension of the main showing and proved vein continuity consistant with 1989 geophysical conductors. Visible gold was recovered in white quartz at 20.0 m depth which returned values of metallics analysis of 1.547 oz. per ton gold (check results 1.376 oz. per ton gold) over 0.18 m (Figure 7.

Holes 6-10, 7-90 and 8-90 tested the southeast extent of the Main Showing and confirmed consistant vein structure and coincidence between the vein occurence and geopysical conductors identified in the 1989 exploration program (Figure 5). The results of the diamond drill program are outlined below. Detailed logs and sample intervals are included in Appendix 5.

The 1990 Diamond Drill Program confirmed the down dip and strike contuinity of the main vein structure. The extent of the vein has been tested approximately 30 m (100 ft) down dip and along strike a distance of 90 m (300 ft.).

Results

Hole 1-90 (Figure 5)

Start: September 24,1990 Finish: September 26,1990
Dip: -65 Azimuth: 40° Length: 171.0 ft. (52.1 m)
Target: Intersect vein approx.15 m down dip from 1989 Surface Sample 25860 which returned 4.718 oz. per ton gold.
Results: Quartz vein intersected from 65.9 ft. (20.1 m) to 75.5 ft. (23.0 m) to prove a down dip width of 9.6' (2.9 m).

Total 52 samples including 5 metallics samples. Whole hole sampled 5 sampled taken across vein as follows:

	From	To	Width	Au ppb.
82615	20.1	20.6	0.5	112
82616	20.6	21.1	0.5	51
82617	21.1	21.8	0.7	158
82618	21.8	22.5	0.7	60
82619	22.5	23.0	0.5	179

Highest Value:

82629	30.0	31.0	1.0	546

Brecciated argilite, minor quartz stringers adjacent to dyke.

Gold values range: 75- 546 ppb Au
Vein average: 111.6 ppb Au over 9.5 ft. (2.9 m)

Holes 2-90 (Figure 5)

Start: September 26, 1990 Finish: September 28, 1990
Dip: -87 Azimuth: 40° Length: 196.8' (60.0 m)
Target: Intersect vein approx. 15 m down dip from Hole 1-90.
Results: Quartz vein intersected from 73.5' (22.4 m) to 80.4' (24.5 m) to prove a down dip width of 6.9' (2.1 m).

A total 44 samples taken the hole was sampled from 10.0 to 60 m (EOH) Seven samples were taken across vein as follows:

		From	To	Width	Au ppb
	82668	22.0	22.4	0.4	25
	82669	22.4	22.6	0.2	67
	82670	22.6	23.0	0.4	120
	82671	23.0	23.5	0.5	<10
	82672	23.5	24.0	0.5	<10
	82673	24.0	24.5	0.5	43
Grab	82692	24.3	24.5	0.2	396

Highest Value:

82688	38.0	40.0		817
	Graphitic Argilite, Fault			

Gold value range: <10-817 ppb Au
Vein average: 40.2 ppb au over 8.2 ft. (2.5 m)
(not including 82692)

Hole 3-90 (Figure 6)

Start: September 28, 1990 Finish: September 29, 1990
Dip: -57 Azimuth: 75° Length: 93.5 ft. (28.5 m)
Target: Intersect vein approx. 15 m. down dip from 1989 Surface Sample 25747 which returned 41.482 oz. per ton gold.
Results: Quartz vein intersected from 80.1 ft. (24.4 m) to 86.0 ft. (26.2 m) to prove a down dip width of 5.9 ft. (1.8 m)

A total 4 samples were taken; all from the vein as follows;

	From:	To	Width	Au ppb
76304	24.6	25.2	0.6	22
76305	25.2	25.4	0.2	34
76306	25.4	25.7	0.3	39
76307	25.7	26.0	0.3	3168

Vein average: 701.5 ppb Au over 4.6 ft. (1.4 m)

Hole 4-90 (Figure 6)

Start: September 29, 1990 Finish: September 30, 1990
Dip: - 78 Azimuth: 75° Length: 114 ft.(35.7 m)

Target: Intersect vein approximately 15 m. down from Hole 3-90.

Results: Quartz vein intersected from 68.9 ft. (21 m) to 64. ft. (22.6 m.) to prove a down dip width of 5.2 ft. (1.6 m.).

A total of 10 samples were taken including 6 samples from quartz vein as follows:

		From	To	Width	Au ppb
	82698	21.0	21.7	0.7	14
	82699	21.7	22.9	1.2	25
	82700	22.9	23.9	1.0	115
	76301	23.9	24.9	1.0	64
	76302	24.9	25.7	0.8	57
Grab	76303	33.0	33.6	0.6	32

Vein average: 20.9 ppb Au over 5.2 ft. (1.9 m.)

Hole 5-90 (Figure 7)

Start: September 30, 1990 Finish: October 1, 1990
Dip: -65 Azimuth: 40° Length: 74.5 ft. (22.7 m.)
Target: Test vein northwest from the known Main Showing.

Results: Quartz vein intersected from 60 ft. (18.3 m) to 64.3 ft. (19.6 m) to prove a down dip width of 4.3 ft (1.3 m.)

Visible gold, galena, chalcopyrite, pyrite 64.0' (19.5 m) to 64.3 ft. (19.6 m).
Total 28 samples taken including 5 check samples and 5 metallics samples.

Gold values range 29 to 148 ppb Au except for the following sample which contained visible gold;

76332	19.83	20.01	0.18 (0.6 ft)	1.547 oz/+ Au
			check sample	1.376 oz/+ Au

HOLE 6-90 (Figure 8)

Start: October 1, 1990 Finish: October 2, 1990
Dip: -80° Azimuth 40° Length: 72 ft. (22 m.)
Target: Test vein southeast from the known Main Showing
Quartz vein intersected from 19.7 ft. (6.0 m) to 31.8 ft. (9.7 m) to prove a down dip width 12.1 ft (3.7 m)

Total samples taken as follows:

	From	To	Width	Au ppb
76336	6.1	6.3	0.2	275
76337	6.3	6.7	0.4	89
76338	6.7	6.9	0.2	44
76339	6.9	7.3	0.4	40
76340	7.3	7.9	0.6	97
76341	7.9	8.2	0.3	37
76342	8.2	8.5	0.3	14
76343	8.5	9.0	0.5	67
76344	9.0	9.5	0.5	94

Vein average: 79.2 ppb Au over 11.2 ft. (3.4 m)

HOLE 7-90 (Figure 9)

Start: October 2, 1990 Finish: October 3, 1990
Dip: -54 Azimuth 340° Length: 36 ft. (10.9 m))
Target: Test vein approximately 15 m down dip from vein exposed in surface pit.
Quartz Vein intersected from 22' (6.7 m) to 31.2' (9.5 m) to prove a down dip width 9.2 ft (2.8 m)

A total of 10 samples were taken as follows:

	From	To	Width	Au ppb
76345	2.7	2.9	0.2	27
76346	6.3	6.4	0.1	23
76347	6.4	6.7	0.3	24
76348	6.7	7.0	0.3	34
76349	7.0	7.3	0.3	18
76350	7.3	7.6	0.3	14
76376	7.6	7.9	0.3	118
76377	7.9	8.5	0.6	60
76378	8.5	8.8	0.3	67
76379	8.8	9.8	1.0	46

Vein average: 47.7 ppb Au over 11.5 ft. (3.5 m)

HOLE 8-90 (Figure 9)

Start: October 3, 1990 Finish: October 4, 1990
Dip: -50 Azimuth 360° Length: 100 ft. (30.48 m)
Target: Test vein approximately 15 m down dip from vein exposed in surface pit.
Quartz vein intersected from 20.0 ft.(6.1 m) to 31.2 ft.(9.5 m) to prove a down dip width 11.2 ft. (3.4 m)

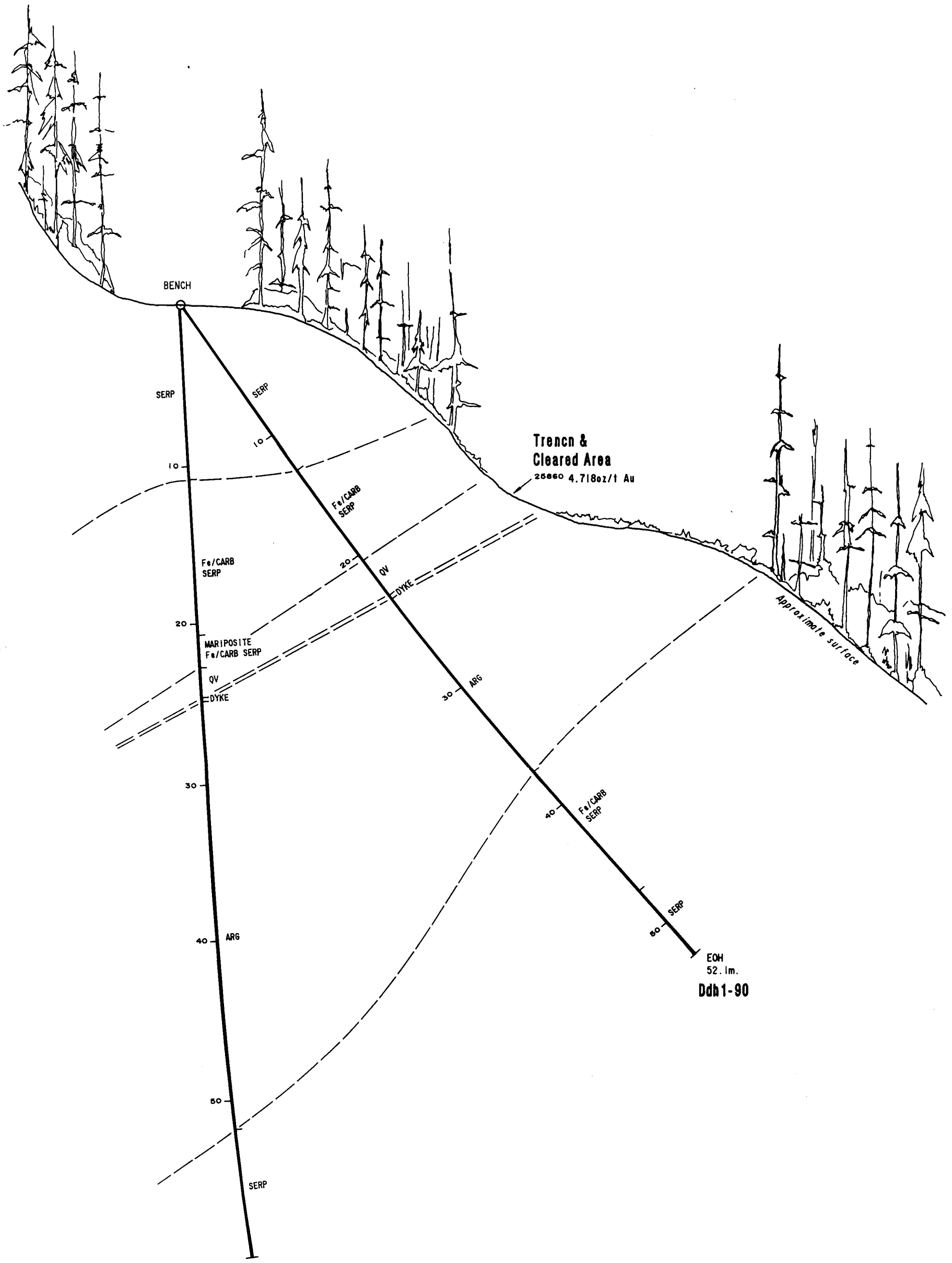
A total of 5 samples were taken as follows:

	From	To	Width	Au ppb
76380	0.0	1.5	1.5	44
76381	6.4	6.7	0.3	44
76382	6.7	7.0	0.3	32
76383	7.0	8.2	0.8	<10
76384	8.2	9.5	1.3	110

Vein average: 56.8 ppb over 10.2 ft. (3.1 m)

CORE STORAGE

All the core is stored in the H.S. Bostock Core library in Whitehorse, Yukon.



LEGEND:

Fe/CARB	*Iron carbonate*
ARG	*Argillite*
SERP	*Serpentinized*
QV	*Quartz vein*

DUNVEGAN EXPLORATION LTD.

TOG PROPERTY

YUKON TERRITORY N.T.S 105C, D

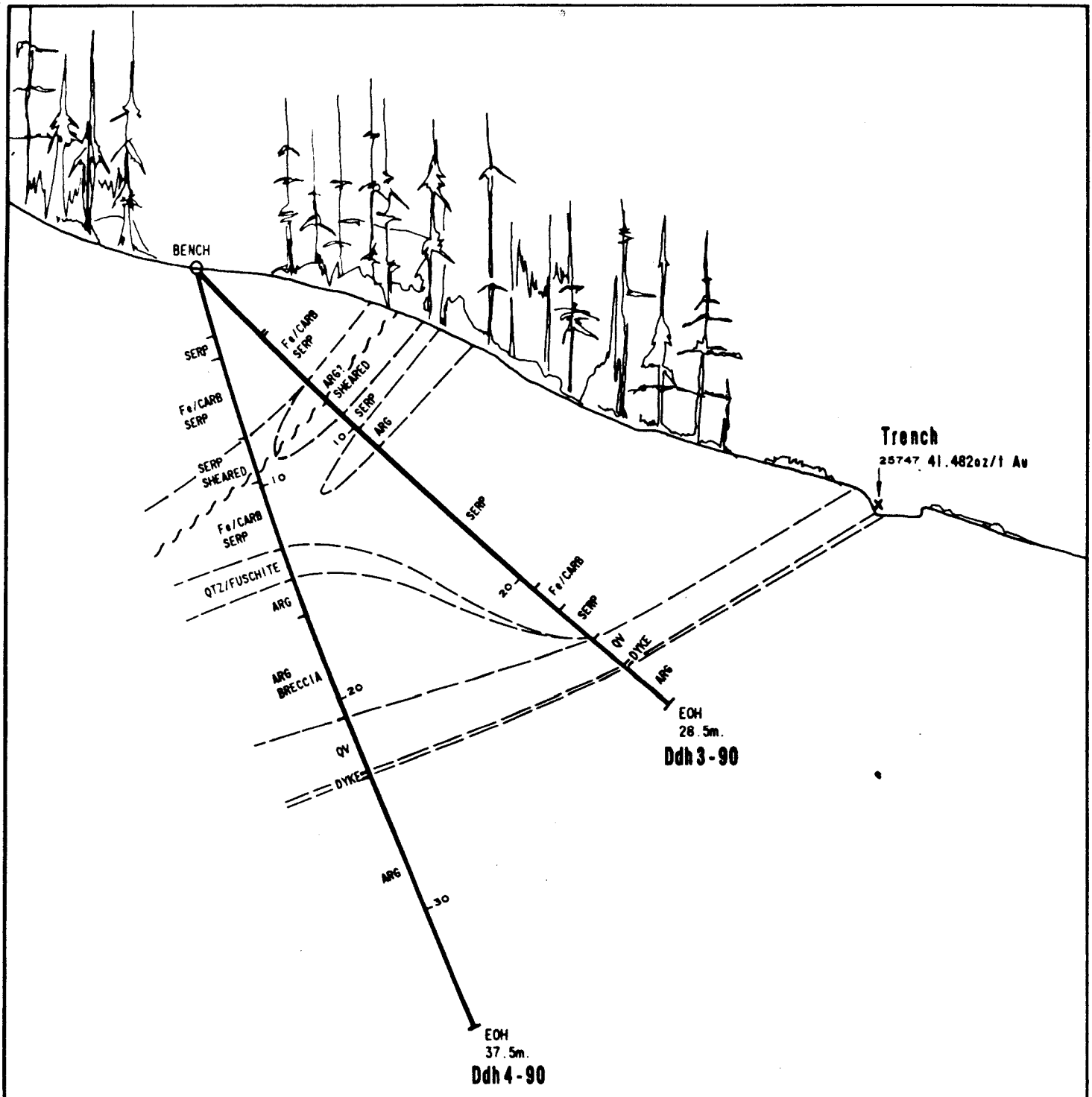
PRELIMINARY DRAWING

DIAMOND DRILLHOLE SECTION

Set up 1; Holes 1-90, 2-90

(Section azimuth 040°)

Work by: Mary Webster	Date: Dec. 1990	Scale: 1 : 250
Drawn by: Rodel E. Ortiz		Figure No. 5



LEGEND:

Fe/CARB	*Iron carbonate*
ARG	*Argillite*
SERP	*Serpentinized*
QV	*Quartz vein*

DUNVEGAN EXPLORATION LTD.

TOG PROPERTY

YUKON TERRITORY N.T.S 105C, D

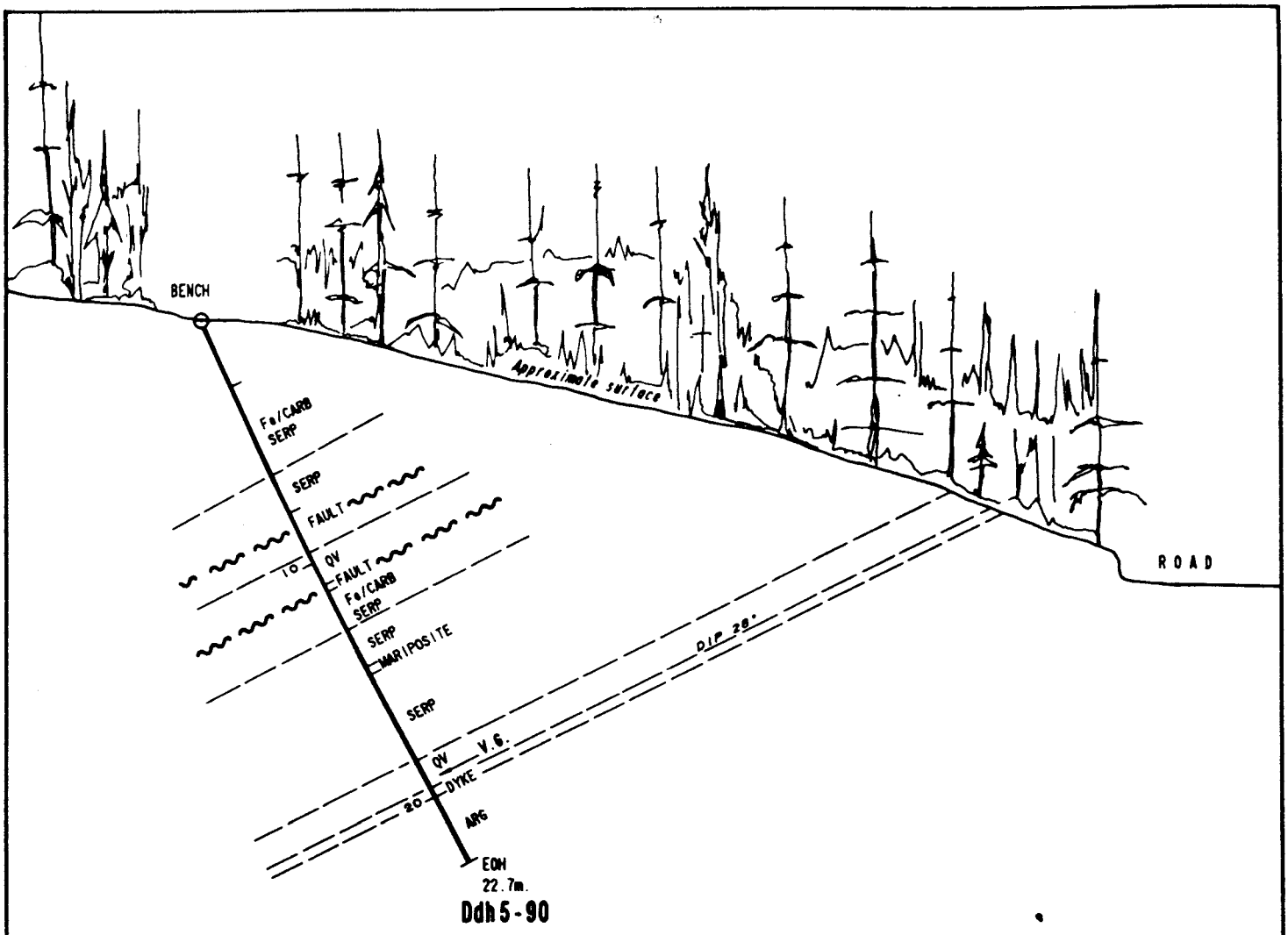
PRELIMINARY DRAWING

DIAMOND DRILLHOLE SECTION

Set up 2, Holes 3-90, 4-90

(Section azimuth 075°)

Work by: Mary Webster	Date: Dec. 1990	Scale:	1 : 250
Drawn by: Rodel E. Ortiz		Figure No.	6



LEGEND.

Fe/CARB	*Iron carbonate*
ARG	*Argillite*
SERP	*Serpentinized*
QV	*Quartz vein*

DUNVEGAN EXPLORATION LTD.

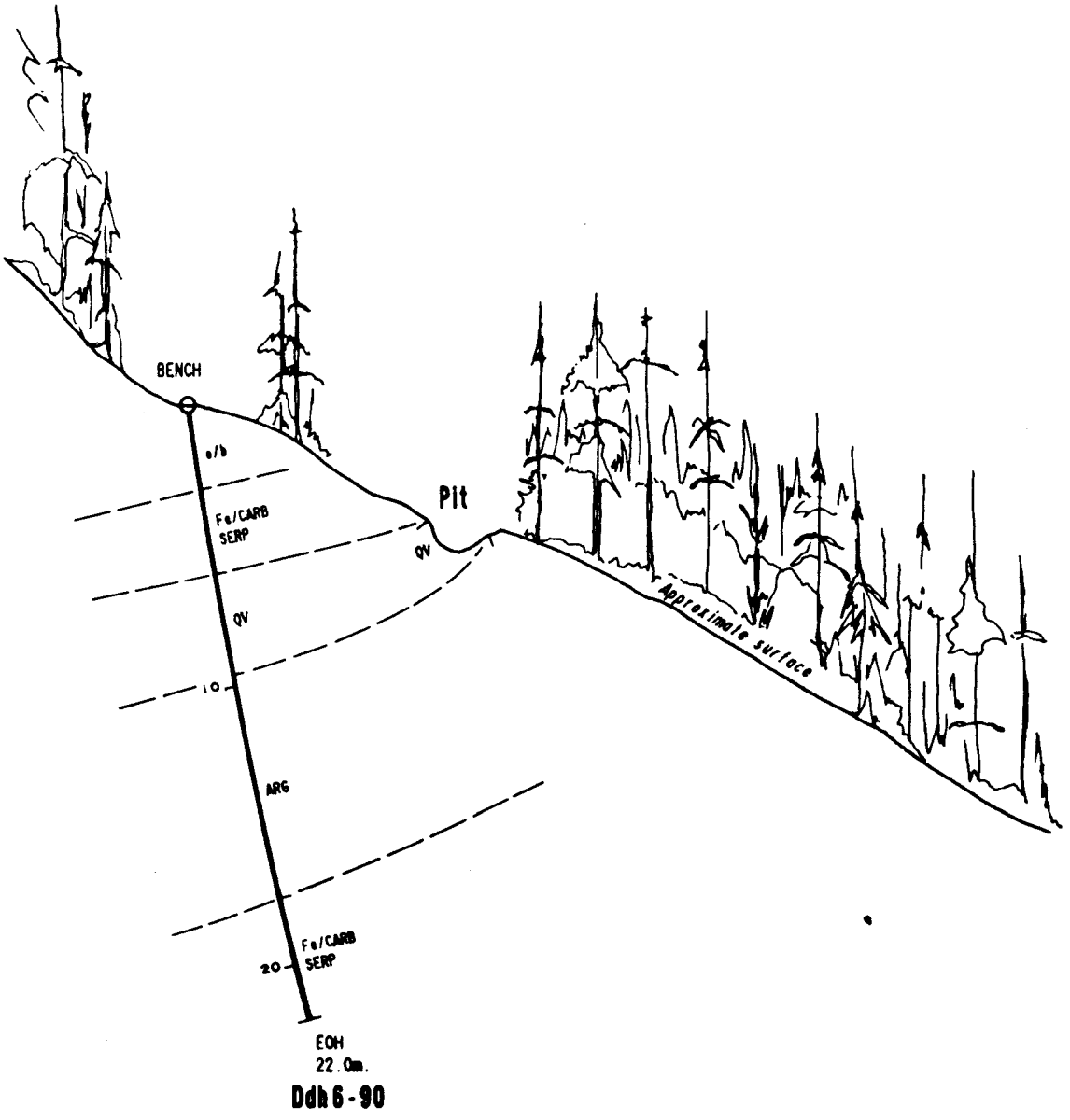
TOG PROPERTY
YUKON TERRITORY N.T.S 105C, D

PRELIMINARY DRAWING

DIAMOND DRILLHOLE SECTION
Set up 2, Hole 5-90

(Section azimuth 040°)

Work by: Mary Webster	Date: Dec. 1990	Scale: 1 : 250
Drawn by: Rodel E. Ortiz		Figure No. 1



LEGEND:

Fe/CARB	*Iron carbonate*
ARG	*Argillite*
SERP	*Serpentinized*
QV	*Quartz vein*

DUNVEGAN EXPLORATION LTD.

TOG PROPERTY

YUKON TERRITORY N.T.S 105C, D

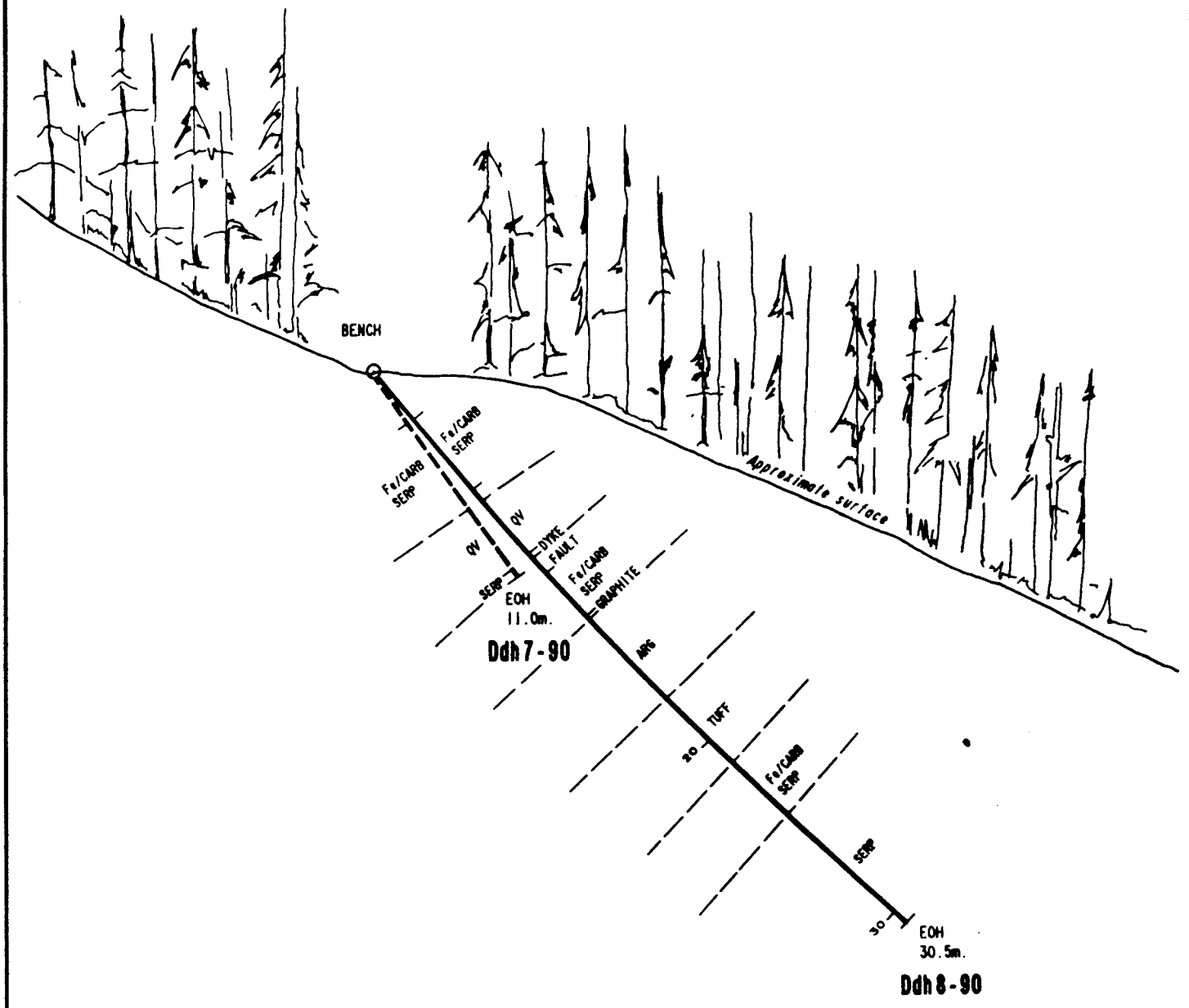
PRELIMINARY DRAWING

DIAMOND DRILLHOLE SECTION

Set up 3, Hole 6-90

(Section azimuth 040°)

Work by: Mary Webster	Date: Dec. 1990	Scale: 1 : 250
Drawn by: Rodel E. Ortiz		Figure No. 8



LEGEND:

Fe/CARB	*Iron carbonate*
ARG	*Argillite*
SERP	*Serpentinized*
QV	*Quartz vein*

DUNVEGAN EXPLORATION LTD.

TOG PROPERTY

YUKON TERRITORY N.T.S 105C, D

PRELIMINARY DRAWING

DIAMOND DRILLHOLE SECTION

Set up 3, Holes 7-90, 8-90

(Section azimuth 000°)

Work by: Mary Webster	Date: Dec. 1990	Scale: 1 : 250
Drawn by: Rodel E. Ortiz		Figure No. 9

CONCLUSION AND RECOMMENDATIONS:

The Main Showing including the surface exposed gold bearing quartz vein on the TOG property has been proven by diamond drilling to continue at least 30 metres (100 ft.) down a consistant dip of 25 to 30 degrees. Along strike, the Main Showing has been confirmed by drilling to extend greater than 90 metres (300 ft.) and has been found to be coincident with geophysical conductors identified in the 1989 exploration program. Visible gold was found in Hole 5-90 at the lower contact of the quartz vein adjacent to an rhyolitic dyke unit.

The occurrence of gold in drill core is consistant with the style of gold mineralization reported and observed on surface. The gold mineralization is consideration to be similar to both the Motherlode (California) and the Atlin (British Columbia).

Shearing was observed in argillaceous units and iron carbonate alteration was found to be pervasive adjacent to the massive quartz vein. The structure, alteration and geology were consistant over the tested area. However, a second quartz vein was intersected in Holes 4-90 and 5-90 and may indicate a broadening of the Main Showing into a series of related auriferous quartz, veins to the northwest. Further surface trenching, sampling and follow-up drilling is warranted in the area of Hole 5-90.

The bulk sample tests returned encouraging results 70 to 80% gold may be recovered by gravity methods alone. Given the consistant dip of the main vein and the recoverable character of the gold, a down dip diamond drill program may confirm the grade of the deposit in order to plan mining operations.

The northwest trending altered iron carbonate zone located 600 metres west of the Main Showing remains untested. Detailed VLF and magnetometer surveys may isolate diamond drill targets in this area.

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STATEMENT OF COSTS

BULK SAMPLING PROGRAM

LABOUR		
Andy MacDonald	21 days @ $150.00 per day	3,150.00
Benny Wood	10 days @ $100.00 per day	1,000.00
Pete Hildeband	30 days @ $200.00 per day	6,000.00
Gord McCLeod	30 days @ $200.00 per day	6,000.00
TRUCK Rental	30 days @ $25.00 per day	750.00
Gas/Maintenance		640.00
EXPLOSIVES and related supplies		350.00
ROOM AND BOARD	61 Mandays @ $25.00 per day	1,525.00
Bulk Gold Assay		700.00
Scoping Cyanidation test		820.00
		$20,935.00

DIAMOND DRILL PROGRAM

DRILL PAD AND WATERLINE PREPARATION	
D8 Cat 10 hrs. @ $125.00 per hr.	1,250.00
DIAMOND DRILLING	31,070.00
860.8 FT. (262.5 m) HQ	32,320.00
GEOCHEMISTRY AND ASSAY	
30 Element ICP/Au Geochem/Sample Preparation	2,538.25
15 Metallics Assay/Sample Preparation	472.50
TRUCK Rental 20 days @ 25.00/day	500.00
Gas/Maintenance	810.00
LABOUR	
Mary P. Webster 30 days @ $200.00 per day	6,000.00
Gord McCleod 20 days @ $200.00 per day	4,000.00
Roy Roberts 4 days @ $100.00 per day	400.00
CONTRACT GEOLOGICAL SERVICES	
Bob McIntyre	3,235.00
ROOM AND BOARD	
40 Mandays @ $25.00 per day	1,000.00
COMMUNICATIONS	263.82
SURVEYING	3,278.75
REPORT PREPARATION	
Drafting	590.00
Secretarial Services/Supplies	920.00
	56,328.32
TOTAL COST (BULK AND DRILLING PROGRAMS)	$77,263.32

STATEMENT OF QUALIFICATIONS

I, Mary P. Webster, of the City of Whitehorse, Yokon Territory, do hereby certify that

1. I am a graduate in Geology with a Bachelor of Science from the University of McMaster, Ontario, in 1983.

2. Since graduation I have been engaged in mining exploration and development in Ontario, Newfoundland, Saskatewan, British Columbia and the Yukon Territory.

3. I supervised and participated in the 1990 exploration project on the TOG property.

4. I have direct interest by way of shares in the Dunvegan Exploration Ltd.

5. I have no direct interest in the TOG property.

7. I submit this letter for inclusion in assessment report material forms only.

M.P. Webster

Mary P. Webster
November 12, 1990

DUNVEGAN EXPLORATION LTD.

TOG PROPERTY
1990
BULK GOLD ASSAY

NORTHERN ANALYTICAL LABORATORIES
GRIND-JIG-AMALGAMATION TEST

Appendix 1

July 27,1990

Bulk Gold Assay

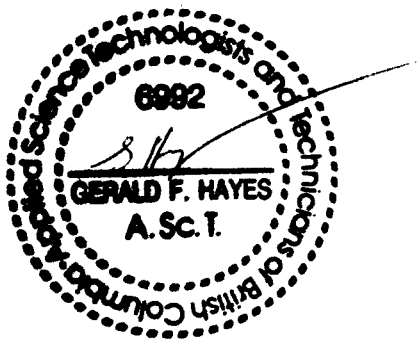
The following results were derived from this procedure:

1) Sample submitted by Gordon Mcleod weighed at 80 kg.
2) Sample was crushed to - 1/4 " and then to 1/8 ".
3) Sample was ground with a ball mill down to 80#.
4) Sample was concentrated using a Denver Jig. The jig reduced the sample to about 1/3 of its' original mass.
5) The jig concentrate was then tabled. The tails were recombined with the jig tails and a sample taken and assayed. A sample was also taken from the middlings portion.
6) The table concentrate was then ground to 200# and the gold amalgamated with mercury.
7) The gold was separated from the amalgam by dissolving the mercury with nitric acid.
8) The gold was then cupelled with lead.

Results

Fraction	Assay	Weight	g Au
Conc.	82.44 %	7.034g	5.799g
Mids	443.8 g/t	1057g	0.472g
Tails	30.45 g/t	78936g	2.403g

Total Assay = 3.16 oz/t



DUNVEGAN EXPLORATION LTD.

TOG PROPERTY
1990
BACON DONALDSON AND ASSOCIATES

SCOPING CYANIDATION TEST

Appendix 2

CYANIDATION REPORT

File No :M90-240 Start Date :Aug 13, 1990
Test No :C1

Starting Conditions :

2000.0 dry g of feed Feed Description:ore
3000.0 ml of water
40.0 % solids Grind Time (min) : 22
2.0 g/l NaCN, maintain 1 g/l
10.5 target pH
0.0 g carbon added

Test Progress :

Time hr	NaCN Conc g/l	NaCN Add g	Ca(OH)2 Conc g/l	Ca(OH)2 Add g	Start pH	End pH	O2 ppm
-1.0				1.72	8.2	10.6	0.8
-0.8				0.85	9.7	10.6	1.0
-0.5				0.88	9.8	10.7	1.2
0.0		6.00		1.07	10.1	10.6	4.0
1.0	0.50	3.00		0.00	10.9		6.5
2.0	0.75	1.35		0.00	11.0		
4.0	0.80	1.20		0.00	10.9		
8.0	0.80	1.20		0.00	11.0		
21.0	0.60	1.20		0.00	10.6		
24.0	1.00	0.00		0.00	10.6		8.5
28.5	0.80	0.60		0.00	10.7		
48.0	0.60		0.35		10.6		8.8

Reagent Consumption : NaCN = 6.39 kg/t
Lime = 1.74 kg/t
Reducing Power : RP = 600 ml of N/10 KMnO4 per l solution

Assays and Extractions :

Time hr	Product	Solids Au g/t	Solids Ag g/t	Liquid Au ppm	Liquid Ag ppm	Extract Au %	Extract Ag %
0.0	JigConc	7372.21				49.1%	
8.0	Soln			1.08		4.2%	
24.0	Soln			2.80		10.7%	
48.0	Soln			5.76		21.5%	
	Total Extracted					70.6%	
48.0	Solids	11.76				29.4%	
						100.0%	

	Au (g/t)	Ag (g/t)	Au (oz/ton)	Ag (oz/ton)
Calc Head	39.87		1.163	
Assy Head	56.82	112.61	1.657	3.284

BACON,
DONALDSON
& ASSOCIATES LTD.

12271 HORSESHOE WAY
RICHMOND B.C. CANADA V7A 4Z1
TELEPHONE (604) 277-2322
FACSIMILE (604) 274-7235

August 28, 1990

File Number: M90-240

DUNVEGAN RESOURCES LTD.
P.O. Box 4063
Whitehorse, Y.T.
Y1A 3S9

Attention: Mary Webster

Dear Madam,

Re: Scoping Cyanidation Test on Dunvegan Ore

1.0 INTRODUCTION

Bacon Donaldson and Associates Ltd. (BDA) received approximately 26 kg of high grade gold ore from Dunvegan Resources Ltd. and was requested to perform a single scoping test to provide some information on the cyanidation potential of the ore. In a telephone conversation with the client, BDA suggested a single grind-jig-cyanidation test utilizing a fine primary grind (70% minus 200 mesh) as a logical starting point in the evaluation of this ore.

2.0 DISCUSSION OF RESULTS

2.1 Sample Preparation

A single 20 litre pail of dry, minus 15 cm ore was received on August 8, 1990 at BDA's laboratory facilities in Richmond, B.C. It was noticed immediately that the ore contained significant sulphide and oxide (iron oxide, copper oxide) mineralization, but no assays were conducted to identify the specific elements at this time. The ore was jaw crushed to minus 1/4 inch, riffle-split (one half saved at this size) and the remainder was cone crushed to minus 6 mesh. From the minus 6 mesh material, samples were prepared for testwork.

2.2 Head Assay

A head assay was conducted on a 350 gram sample of the cone crushed ore. Because of the suspected high grade, free gold nature of the ore, the assay was conducted by the metallic sieve method. This method involves pulverizing the entire 350 g sample, then screening the pulp at 150 mesh to scalp off the oversize (the pulverizing is done to a degree that ensures there will be less than 25 g of +150 mesh remaining). The entire +150 mesh fraction is assayed for Au/Ag, while the -150 mesh fraction is sampled and assayed in duplicate. This assay method is based on the fact that any coarse gold in the sample will flatten rather than pulverize and will therefore report to the +150 mesh fraction (which is assayed entirely).

All assay numbers are factored together to give the head assay for the ore. By the metallic sieve method, the Dunvegan ore assayed 56.81 g/tonne Au and 112.58 g/tonne Ag (1.66 oz/ton Au, 3.28 oz/ton Ag). The complete details of the metallic sieve assay are appended.

2.3 Grind-Jig-Cyanidation

A 2000 gram sample of the Dunvegan ore was ground in a laboratory rod mill to 71% minus 200 mesh. The ground slurry was then passed through a 1" x 1" Denver, lab-scale jig to produce a rougher high concentrate of ~125 grams. This rougher concentrate was then upgraded further by hand panning to produce a small (6 g) sample which was assayed in its entirety. BDA's experience with laboratory processing has indicated that this rougher-jig, cleaner-handpan procedure closely approximates the results obtained with a full-scale, two-stage gravity processing operation.

Visual observation of the hand panned jig concentrate indicated that it contained significant free gold, with an approximate top size of 48 mesh. The hand panned jig concentrate assayed 7372 g/tonne Au (215 oz/ton Au) and recovered 49% of the gold in the sample.

The rougher jig tailings and the hand panning tailings were combined, dewatered to 40% solids and leached in a vertical agitation cyanide test for 48 hours. The test began at an initial cyanide concentration of 2.0 g/l NaCN, with the free cyanide level maintained at 1.0 g/l NaCN for the duration of the test.

Including the recovery from jigging, the grind-jig-cyanidation test recovered 70.6% Au. The extraction rate for the test is graphed in Figure 1. It can be seen from the graph that the ore was still leaching when the test was ended after 48 hours. In fact, the extraction rate has not begun to level off and depicts a straight line from time zero. This suggests that further leaching would extract more gold. At the current (straight line) leaching rate, gold extraction would reach 90% within another 48 hours of leaching.

Cyanidation of Dunvegan Ore

Gold Extraction VS. Time

TEST C1

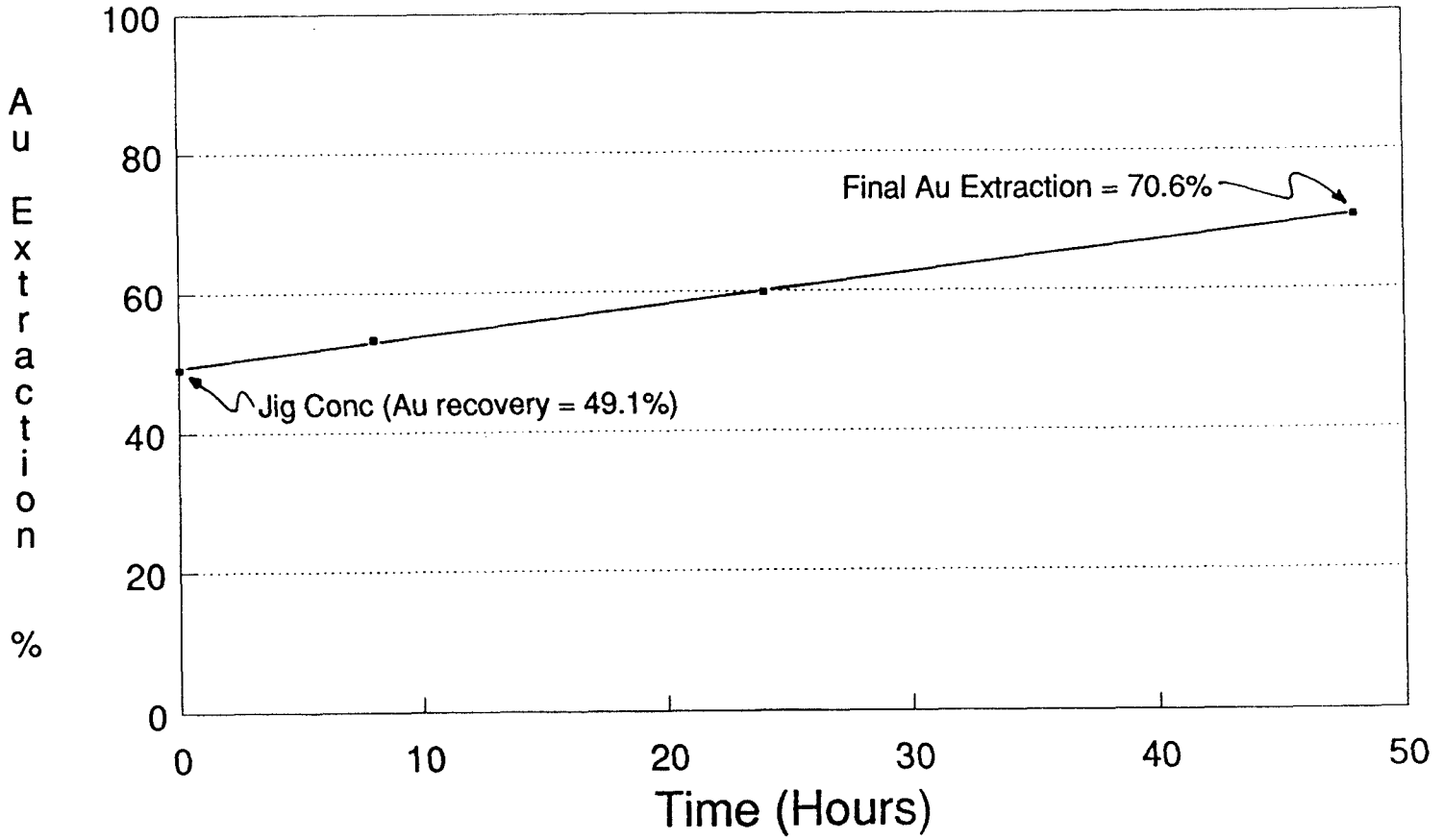


Figure 1

Cyanide consumption for this test was very high at 6.4 kg NaCN per tonne of ore. Reducing power, a qualitative indication of the dissolved contaminants in the cyanide solution, was also fairly high. To investigate this, the pregnant cyanide solution was analyzed for dissolved copper and zinc, two of the more common cyanicides (cyanide consumers). These metals were found to be dissolved in the pregnant solution at levels of 1.78 g/l Cu and 0.087 g/l Zn. These levels suggest that dissolution of copper by the leach solution was responsible for many of the problems experienced with this leach (slow leach rate for gold, high cyanide consumption) as the cyanide solution will preferentially dissolve copper before dissolving gold.

3.0 RECOMMENDATIONS

As a first attempt, the results of the single grind-jig-cyanide test are promising: 1) jig recovery was very high; 2) the ore is indicated to be leachable by cyanide. However, the ore also contains significant values of copper (and other ?) mineralization and this adversely affects the leaching of gold by consuming cyanide and by slowing the gold extraction rate. These problems are serious enough that other processing options should be analyzed.

3.1 Flotation

A grind-jig-bulk flotation test utilizing a similar grind as the cyanide test would quickly indicate if flotation holds promise. If the gold values are either "free" or associated with the sulphide minerals, then it should be possible to produce a bulk sulphide flotation concentrate that recovers most of the gold values.

Further testwork would involve cleaning flotation to upgrade the bulk concentrate into a marketable flotation concentrate.

3.2 Gravity Concentration

The results of the jig/hand-panning procedure are very promising. As the operating costs of a gravity processing plant are low compared to those of a cyanide or flotation plant, it is worthwhile to investigate the possibilities of optimizing gravity concentration. It may be possible to achieve 70 to 80% gold recovery by gravity concentration alone. There are many specialized gravity concentration techniques available besides jigging (Knelson concentrator, Falcon concentrator, etc.). Optimization would include testing some of the various gravity concentration techniques while varying the primary grind and the blend of the ore.

3.3 Mineralogy and Geology

It is highly recommended that more effort be spent at this time to define the mode of the gold occurrence, the other mineralization in the ore, and the variability of the ore grade across the deposit. The sample BDA tested was acknowledged to be a hand-picked, high grade sample. Future testwork should be conducted on average run-of-mine ore.

Yours truly,
BACON DONALDSON & ASSOCIATES LTD.

Ed Henrioulle, B.A.Sc.

Dr. M. J. V. Beattie, P.Eng.
EH/MJVB/jlb

APPENDIX I

Metallic Sieve Assay

METALLIC SIEVE ANALYSES

Project Number : M90-240
Project Name : Dunvegan Resources

Date : Aug 20/90

	WEIGHTS			+150 Mesh Total Sample		-150 Mesh 1st A.T.		-150 Mesh 2nd A.T.	-150 Mesh Calculated Total		TOTAL SAMPLE		Average Grade (total sample)	
Client I.D.	Total Sample (g)	Total +150 # (g)	Total -150 # (g)	Au (mg)	Ag (mg)	Au (mg)	Ag (mg)	Au (mg)	Au (mg)	Ag (mg)	Au (mg)	Ag (mg)	Au g/tonne	Ag g/tonne
Composite	352.81	1.25	351.56	5.411	0.691	1.211	3.238	1.217	14.633	39.030	20.044	39.721	56.81	112.58

R.W. Williams

Government Certified Assayer
BACON DONALDSON & ASSOC.

APPENDIX II

Detailed Cyanidation Results

Northern Analytical Laboratories ltd.

[illegible]

Work Order # [illegible]

Lonestar Exploration
[illegible] 208 Main St.
Whitehorse, Yukon

File # [illegible]

Assay Certificate For Samples Provided

Sample	+100 oz/t Au	-100 oz/t Au	oz/t Au
82637	<0.002	0.005	0.005
82638	<0.002	<0.002	<0.002
82639	<0.002	<0.002	<0.002
82640	<0.002	<0.002	<0.002
82641	<0.002	<0.002	<0.002

Au -- Metallics Fire Assay

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

Northern Analytical Laboratories ltd.

October 12, 1990

Work Order # 9458

Bonanza Exploration
1 - 104 Main St.
Whitehorse, Yukon

File # 9458A

Assay Certificate For Samples Provided

Sample	+100 oz/t Au	-100 oz/t Au	oz/t Au
76313	<0.002	0.015	0.014
76315	<0.002	0.016	0.015
76330	<0.002	<0.002	<0.002
76332	0.593	1.019	1.547
76334	<0.002	0.007	0.007

Au -- Metallics Fire Assay

Applied Science Technologists and Technicians of British Columbia
6992
GERALD F. HAYES
A.Sc.T.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LABORATORY LTD.
105 COPPER ROAD
WHITEHORSE, Y.T.

PROJECT : wo#08453

TYPE OF ANALYSIS : Au METALLICS

CERTIFICATE # : 90523
INVOICE # : 20041
DATE ENTERED : 90-10-16
FILE NAME : NAL90523
PAGE # : 1

PREP IX	SAMPLE NAME	oz/t -100M	oz/t +100M	mg.Au +100M	Wt.gm -100M	Wt.gm +100M	oz/t FINAL
A	76312	0.006	0.001	0.001	253	0.13	0.006
A	76314	0.001	0.001	0.001	213	9.61	0.001
A	76331	0.001	0.001	0.001	196	1.44	0.001
A	76333	1.078	41.34	1.290	122	0.91	1.37%
A	76335	0.004	0.001	0.001	142	1.60	0.004

CERTIFIED BY : J. Rossbach

DUNVEGAN EXPLORATION LTD.

TOG PROPERTY
1990
DIAMOND DRILL PROGRAM

1990 DRILL HOLE LOGS

Appendix 3

SIZE DISTRIBUTION

SAMPLE NO: M90-240 C1 Tails

Size Fraction (mesh)		Individual Percentage Retained	Cumulative Percentage Passing
	+100	0.7	99.3
-100	+150	6.9	92.5
-150	+200	21.4	71.0
-200	+325	27.8	43.3
-325	+400	2.4	40.8
-400		40.8	

NUNVEGAN EXPLORATION LTD — DIAMOND DRILL HOLE LOG — HOLE 1-90

DATE STARTED: SEPT 24/90 — HOLE DIP: -65° — HOLE AZIMUTH: 220° UTM — COLLAR E

DATE COMPLETED: SEPT 26/90 — HOLE LENGTH: — ACID TESTS: NOT DONE — N

DRILLED BY: KLUANE DRILLING LTD. — GEOLOGIC LOG BY: MMJ — SAMPLED BY: GWM — PAGE 1 of 5

FROM (m)	TO (m)	LITHOLOGY	GRAPHIC LOG	SAMPLE NO.	FROM	TO	Au g/t	Ag g/t
0	1.0	VERY DARK GREEN, FRACTURED SERPENTINITE		82601	1.0	4.0		
1.0	13.3	VFG TO AMORPHOUS, VERY DARK GREEN MASSIVE, SPOTTED AND MOTTLED SERPENTINITE. FREQUENTLY FRACTURED; UNEVEN TO IRREGULAR AND BIFURCATED; FG TALC, CHLORITE, IRON CARBONATE QUARTZ, IRON OXIDE STAIN FILLED; 1.0MM TO 0.5cm WIDE AVG 1 FRACTURE PER 10 CM, TREND 45-60°. MINOR 5-15% VFG DISSEMINATED PYRITE ALONG FRACTURES NIL CALCITE		82602	4.0	6.0		
		1.3 - 2.0 DARK GREEN-GREY SILICEOUS CHLORITIC VOLCANIC - ANDESITE? MINOR MILKY WHITE FG QUARTZ STRINGERS AND BLEBS 5% VFG DISSEM PYRITE ON QUARTZ		82603	6.0	8.0		
		2.0 - 5.2 BROKEN CORE, ANGULAR FRAGMENTS LIMONITE, TALC 1.5 BIFURCATED 1-3cm WIDE WHITE QTZ/CHL STRINGER 52°		82604	8.0	10.0		
		3.0 - 5.2 SPOTTED SERPENTINITE; DARK GREEN SERPENTITE, 1-2MM DIAMETER SUBROUND TO ROUND, BUFF FG CLAY TO IRON CARBONATE RIMMED TRANSLUCENT GREY, AMORPHOUS 'FELDSPAR' ?? 3-4 PER CM², WEAK FOLIATION ABROAD 60°,		82605	10.0	12.0		
		3.7 - 4.5 BROKEN CORE		82606	12.0	14.0		
		5.2 - 6.1 BROKEN CORE TO GOUGE, MINOR FAULT ROUGH TALC COATED, MINOR IRON STAIN, LIMONITE TO CHLORITIC GOUGE AT BOTTOM OF INTERVAL, TRACE TO 5% FG DISSEMINATED PYRITE						
		6.1 - 9.0 DARK GREYISH GREEN WEAKLY MOTTLED SERPENTINITE CROSSCUT BY 4.0 - 5.0MM WIDE VFG WHITE - BUFF TO LIGHT GREEN TALC, IRON CARBONATE, QUARTZ, MINOR MARIALITE FILLED, BIFURCATED FRACTURES						
		7.1 - 7.3 BROKEN CORE						
		7.8 FRACTURES QUARTZ BIFURCATED; TRACE SULPHIDES 45°						
		8.5 FRACTURE IRON STAINED 50°						
		9.0 - 13.3 MODERATELY PERVASIVELY CARBONATISED DARK GREEN TO BUFF GREEN MOTTLED SERPENTINITE FINELY TEXTURED TO ANASTOMISING BUFF TO ORANGEY IRREGULAR PATCHY CARBONATISED SERPENTINE MOD TO STRONG FOLIATION 45-60° ABUNDANT FINE FRACTURES INFILLED WITH FG IRON CARBONATE TALC MILKY WHITE QUARTZ, VFG ROUNDED PATCHES UP TO 0.5cm DIAM PYRRHOTITE SPARSELY DISTRIBUTED ALONG FRACTURES, RED LIMONITE/ HEMATITIC HALO AROUND SULPHIDE GRAINS LOCALLY VFG-FG PYRRHOTITE AND MINOR DISSEMINATED PYRITE IN STRINGERS TOTAL SULPHIDE 10% MOST SULPHIDES OXIDIZED ALONG GRAIN BOUNDARIES						
		10.1 NUMEROUS 1-2.0cm WIDE WHITE BUFF FG QUARTZ STRINGERS 70°						

DUNNEGAN EXPLORATION LTD. DIAMOND DRILLHOLE LOG

HOLE 1-90
PAGE 2 of 5

FROM	TO	LITHOLOGY	GRAPHIC LOG	SAMPLE NO.	FROM	TO	Au g/t	Ag g/t
		12.2 - 13.0 MODERATELY PERVASIVELY CARBONATIZED SERPENTINE ABUNDANT HAIRLINE FRACTURES 0.1 - 2 CM WIDE, MINOR BUFF ALTERATION 1-3 MM ALONG STRINGER WALLS, DARK GREEN TRANSLUCENT SODEITE - SILICA * INFILLED, MINOR TO TRACE VFG DISSEMINATED PYRITE, COLOR CHANGE GRADATIONAL		82607	14.0	15.0		
				82608	15.0	16.0		
		13.0 - 18.7 STRONGLY STRINGERED SERPENTINITE, ABUNDANT 0.1 - 1.0 CM WIDE STRINGERS TO BRECCIATED, WHITE CARBONATE, MINOR (10%) VFG CALCITE STRINGERS, TREND 45°-70° TRACE VFG DISSEMINATED PYRITE MINOR VFG TALCOSE ALTERATION		82609	16.0	18.0		
				82610	discarded			
		LOWER CONTACT FRACTURED @ 70°						
18.7	20.1	GREY GREEN TO ORANGE CARBONATE ALTERED VOLCANIC (SERP?)		82611	18.0	18.5		
		FG-MG, DARK GREY/GREEN WITH DARK GREEN SERPENTINE REMNANT PATCHES, VERY FINE TRANSLUCENT GREY VEINS ALONG FOLIATION, 0.1-0.5 CM WIDE HAIRLINE FRACTURES @ 50° AND @ 110°, INCREASINGLY PERVASIVE TO VERY STRONGLY PERVASIVE IRON CARBONATE ALTERATION WITH INTERMIXING MOTTLED RANGES PROGRESSIVELY FROM GREY BUFF CARBONATIZATION TO GREEN SERP? FRAGMENTS TO STRONG ORANGE BY WISPY PLUMES FINE CARBONATE VEINS, MINOR PYRITE		82612	18.5	19.0		
				82613	19.0	19.5		
				82614	19.5	20.1		
		18.7 - 19.0 MOD FOLIATED, DARK GREEN GREEN SERP CROSSCUT BY MANY GREY FRACTURES						
		19.0 ALTERATION HALO CONTACT TO BUFF ORANGE MOD PERVASIVE IRON CARBONATE ALTERATION CROSSCUT BY ORANGE IRON CARBONATE CALCITE (TRACE), TALC FILLED FRACTURES						
		16.2 8 CM TALCOSE GOUGE TREND 50° CONTACTS SHARP, SLICKENSIDED						
		17.0 6 CM TALCOSE GOUGE TREND 80° "						
		17.2 - 17.4 BROKEN CORE TO TALCOSE GOUGE "						
		17.45 - 18.0 ORANGE BUFF GRITTY TALCOSE GOUGE UPPER CONTACT RAGGED OVER 5.0 CM, 70°; LOWER CONTACT SHARP @ 90°						
		18.0 - 19.3 MOTTLED, BLUE GREEN TO LIGHT OLIVE GREEN ENHANCED BLEACHED REMNANT SERP(?) FRAGMENTS. IRON CARBONATE ALTERATION INTERMITTENTLY PERVASIVE, MINOR TO TRACE CALCITE 30% IRON CARBONATE, 1-3% VFG DISSEMINATED PYRITE, 2-10% HAIRLINES, LOWER CONTACT GRADATIONAL						
		19.3 - 20.0 STRONGLY PERVASIVELY IRON CARBONATE ALTERED, WISPS TO TRACE/LOCALLY FOLIATED PLUMES UP TO 1.5 CM WIDE ORANGE-BUFF IRON CARBONATE, WISPS CHL (SERP?) DARK GREEN MATRIX (50%) IRON CARBONATE, 1-5% VFG DISSEM PY, TRACE CALCITE LOWER CONTACT FRACTURED, ROUGH, UNEVEN						
		20.1 - 20.1 GREY GREEN VOLCANIC BRECCIA; FG - CG DARK TO GREY GREEN VOLC, MODERATELY COARSELY BRECCIATED						

DONEGAN EXPLORATION LTD. DIAMOND DRILLHOLE LOG

FROM	TO	LITHOLOGY	GRAPHIC LOG	SAMPLE NO.	FROM	TO	Au g/t	Ag g/t
20.1	23.0	WHITE / BLACK GRAPHITIC QUARTZ, MINOR ARGILLITE INCLUSIONS FG-MG, MILKY TO BLUISH WHITE QUARTZ, GRAPHITE COATED ROUGH FRACTURES, PREDOMINANTLY ALONG QUARTZ VEIN MARGINS, MOD DEVELOPED PLOTS IRON OXIDE, 1-15% DISSEMINATED VFG PYRITE. FG TO VCG DISCRETE MILKY WHITE SCHEELITE, WEAKLY BRECCIATED, SUBANGULAR FRAGMENTS MOST MARKEDLY DISSEMINATED AT VEIN CORE, 0.1 - 40CM DIAM.		82615	20.1	20.6		
				82616	20.6	21.1		
				82617	21.1	21.8		
				82618	21.8	22.5		
				82619	22.5	23.0		
				82620	23.0	23.5		
				82621	23.5	24.0		
				82622	24.0	24.5		
				82623	24.5	25.0		
				82624	25.0	25.5		
		20.1 - 20.4 OLIVE GREEN GRITTY PHYLLITIC TALCOSE GOUGE INTENSELY SHEARED/INFILLING FRACTURES GREY QUARTZ FRACTURES FOUND 40°						
		20.4 - 20.6 GRAPHITIC FRACTURES ~ IRREG SUTURAL LINES, ROUGH GRAPHITE COATED, LIMONITE STAINED, PHYLLITIC SLICKENSIDES						
		20.6 - 21.1 MILKY WHITE CRS / GRAPHITE FRACTURED QUARTZ						
		21.1 - 21.2 FRACTURED SLICKENSIDED SERPENTINE, IRON CARBONATE						
		21.2 - 21.9 GREENISH BLACK QUARTZ STRINGERED ARGILLITE CONTACTS FRACTURED, VCT BX LOC SHEAR ~ 80° ROUGH						
		21.8 - 22.5 WHITE MILKY QUARTZ, GRAPHITE FRACTURES, V. MINOR FG CALCITE, TRACE VFG DISSEMINATED PYRITE ON FRACTURES, MINOR MG LIMONITE STAINED CUBIC VUGS - DISSOL PY.						
		22.5 - 22.7 FRACTURED CORE GRAPHITIC QUARTZ STRINGERED						
		22.7 - 23.0 FG GREY BROWN, FINELY PORPHYRITIC DYKE VFG BUFF CHILLED MARGINS 2-6CM WIDE, 3CM WIDE EXTERNAL BUFF VFG RIND MINOR GRAPHITIC QUARTZ FILLED FRACTURES AND 1-10CM DIAM BRECCIA FRAGMENTS MINOR 'BLEACHED' BUFF 1-5MM WIDE FRACTURES SUBPARALLEL TO CORE AXIS DYKE CONTACTS 63°						
23.0	38.2	DARK GREY BLACK PYRITIC BRECCIATED NONCALC BANDED ARGILLITE VFG, LIGHT GREY TO BLACK, PERVASIVELY FINELY BRECCIATED, MODERATELY GRAPHITIC, WEAKLY TO MODERATELY SILICEOUS, MOD TO STRONGLY FOLIATED BRECCIA CLASTS ROTATED, THIN IRREGULAR BANDS GREY, BLACK ARG, MINOR LIMONITE, MINOR QUARTZ. VFG DISSEMINATED PYRITE THROUGHOUT, FRACTURED 10-200M, UNEVEN, LIMONITE STAINED. MILKY QUARTZ FILLED FRACTURES 0-45°, 1 PER 25CM, 2-15CM WIDE IRREG, ENHANCED, OFFSET AND DUNDAS BY LAMINAE OF LITHOLOGIC BANDS MINOR LIMONITIC FAULTS 23' Bx 72°, Qtz FRACTURES 10° 24' Bx 50°, " " 80°						

DONVEGAN EXPLORATION LTD. DIAMOND DRILLHOLE LOG

TO LOG PAGE 4 OF 5

FROM	TO	LITHOLOGY	GEOLOGIC LOG	SAMPLE NO.	FROM	TO	Au g/t	Au g/t
		25° FOLIATION, BRECCIATED ARGILLITE FINE PYRITE STRINGERS 40°						
		26.0 - 26.5 COARSELY BRECCIATED ARGILLITE, LIMONITE STAINS ALONG CLASTS		82625	25.5	26.0		
		26.8 - 27.0 FINE ARGILLITE BRECCIA, MOD. SILICEOUS 10-15% VFG PYRITE, DISSEMINATED TO WISPS, CONTACT 35°		82626	26.0	27.0		
		27.0 - 30.8 FAULT ZONE, V. COARSELY BROKEN CORE: BRECCIATED PYRITIC, QUARTZ STRINGERED ARG, MINOR PHYLLITIC PASSIVE SERPENTINITE FRAGMENTS. INTERSTITIAL AND FRACTURE FILLING STRONG VFG IRON CARBONATE, CHLORITE VFG, DISSEM AND LOCALLY STRINGERED PYRITE		82627	27.0	28.0		
				82628	28.0	30.0		
		27.75 - 28.25 LIMONITIC - IRON CARBONATE - CHLORITE GOUGE		82629	30.0	31.0		
				82630	31.0	32.0		
		30.8 - 33.7 COARSELY BRECCIATED DARK GREY, BLACK METAMORPHOSED ARGILLITE, FRACTURED GREY GREEN VFG 'DYKE' INTERMEDIATE VOLCANIC COMMONLY LIMONITE STAINED ALONG MARGINS. MILKY QUARTZ (MINOR DISSEM. SERICITE) INTERSTITIAL TO BRECCIA FRAGMENTS. BRECCIA QTZ TRUNCATED BY LIMONITIC, PYRITIC IRREGULAR 0.1 - 0.5CM STRINGERS, SUBPARALLEL TO CORE AXIS AND ALONG MORE COMPETANT VOLCANIC BOUNDARIES. NARROW QTZ FILLED GASH VEINS CROSSCUT LIMONITE STAINED FRACTURES AND VOLC.		82631	32.0	33.0		
				82632	33.0	34.0		
				82633	34.0	35.0		
		30.8 - 31.4 BRECCIATED ARG INTERSTITIAL QTZ, LIMONITE-PY STRINGERS		82634	35.0	36.0		
		32.3 - 33.7 50% GREY GREEN BRECCIATED, FRACTURED VFG VOLC DYKE, MINOR QTZ BRECCIA, LIMONITIC FRACTURES AND GASH VEINS 32.5 GASH QTZ STRINGERS 50°		82635	36.0	37.0		
		33.7 - 33.9 LIMONITIC FRACTURE AND BROKEN CORE 30°		82636	37.0	38.2		
		33.9 - 34.6 BRECCIATED GREY, BLACK VFG ARGILLITE - 10-15% INTERSTITIAL QUARTZ BLEBS, FRACTURE FILLING 10-15% VFG DISSEMINATED PYRITE UPPER CONTACT LIMONITE STAINED.						
		34.6 - 38.2 STRONGLY BRECCIATED QTZ AND LIMONITE STRINGERED PYRITIC ARG WEAKLY HUMMOCKY BANDED ARG, SUBPARALLEL BANDS 1-10MM LIMONITE, FINELY DISSEMINATED PYRITE THROUGHOUT, MINOR VUGGY QTZ AND/OR LIMONITE STAINED FRACTURES, BROKEN CORE AT BOTTOM OF INTERVAL.						
		35.2 QTZ STRINGERS 40° 1.0MM TO 1.0CM WIDE, BRECCIATED						
		35.7 HUMMOCKY, BANDED ARGILLITE 82°						
		36.4 - 38.2 FRACTURED TO SHEARED GRAPHITIC PYRITIC ARGILLITE 37.6 - 38.0 FAULT, GRAPHITIC SHEAR						
		38.1 - 38.2 LIMONITE STAINED GRAPHITIC ARGILLITE SHEAR ZONE SUBPARALLEL TO CORE AXIS CONTACT ANGLES / GROUND CORE						

DUNRAGAN EXPLORATION LTD. DIAMOND DRILLHOLE LOG

FROM	TO	LITHOLOGY	GRAPHIC LOG	SAMPLE NO.	FROM	TO	Au g/t	Au g/t
38.2	48.5	DARK GREY BLACK, EMERALD GREEN MARIPOSITE/IRON CARBONATE ALTERED ULTRAMAFIC		82637	38.2	39.0	METALLICS	
		MIC - CG, LIGHT GREY TO BLACK, COARSELY LINEATED, MODERATELY FOLIATED TO LAMINATED OR WEAKLY BANDED; VFG - [illegible] DISSEMINATED PYRITE BANDS, [illegible] PYRITE STRINGERS MOST 0.5cm - 1.0cm, [illegible]		82638	39.0	39.5	"	
		ADDITIONAL DECREASE IN GRAINSIZE, ABUNDANT [illegible] PYRITE, ABUNDANCE MARIPOSITE, ENCREASED ORANGY BROWN IRON [illegible] ALTERATION AND LESS ALTERED SERPENTINITE. MINOR SLICKENSIDED SHEARS, LIMONITE [illegible] FRACTURES NON CALCAREOUS.		82639	39.5	40.0	"	
		39.6 FG-MG VISIBLE DISSEMINATED SUBROUND TO FLAKEY GOLD GRAINS LARGELY OCCUR WITHIN VFG BLACK 'GRAPHITIC' MATRIX, GRAINS ALIGNED AND FOLIATED WITH HOST ROCK LINEATIONS/FOLIATIONS. BIFURCATED GREY WHITE MG-CG QUARTZ STRINGERS UP TO 1.0CM WIDE, MINOR MG DISSEMINATED SCHEELITE, 5-10% MG GRAINS DISSEM PYRITE, FOLIATED PATCHES UP TO 3.0CM DIAM BRIGHT GREEN MARIPOSITE, MINOR GROUND FORE		82640	40.0	40.5	"	
		41.0 MG, STRONGLY FOLIATED TO BANDED, MARIPOSITE PATCHES PARALLEL BY MG-CG WHITE QTZ-SCHEELITE STRG, SHARP STRINGER CONTACTS		82641	40.5	41.0	"	
		39.8 fo 40°		82642	41.0	41.5		
		40.8 5.0CM WIDE QTZ/SCHEELITE STRINGER ~45°		82643	41.5	42.0		
		40.8 - 42.0 SLIGHTLY INCREASED IRON CARBONATE		82644	42.0	42.5	✓	
		42.0 - 42.5 BROKEN CORE TO COARSE SHEAR ZONE - LIMONITE STAIN, UP TO 50% BUFF IRON CARBONATE, ~10% MARIPOSITE FINELY DISSEMINATED PYRITE THROUGHOUT 5-10% PY.		82645	42.5	43.0		
		42.6 fo 40°		82646	43.0	44.0		
		35.5 - 48.5 MIXED MARIPOSITE - IRON CARBONATE ALTERATION MINOR FRACTURE ZONES <0.5CM WIDE, FINE GRAINED, MIXED CHARACTER, NON CALCAREOUS POSSIBLE FINE GRAINED RHYOLITE CLOTS / BLEACHED PATCHES		82647	44.0	46.0		
		42.3 - 46.0 FRACTURED CORE, MINOR NARROW QTZ STRINGERS LIMONITE, ROUGH FRACTURES 80°, 50% RECOVERY		87648	46.0	47.0		
		46.3 - 46.7 FRACTURED CORE, SERPENTINE SLICKENSIDES CARBONATE STRINGERS, LIMONITE STAIN		82649	41.0	48.0		
		47.0 - 47.5 FRACTURED CORE; GRAPHITIC SLICKENSIDES, TALC AND SERPENTINE SLICKENSIDES		82650	48.0	49.0		
		LOWER CONTACT GRADATIONAL		82651	49.0	50.0		
				82652	50.0	51.0		
48.5	52.12 EOH	GREY, BLACK ORANGY IRON CARBONATE ALTERED ULTRAMAFIC SERPENTINITE		82653	51.0	52.12 EOH		
		VFG FG, BLACK MATRIX, PATCHES WISPS TO SEMI BANDS LIGHT GREY NON CALCAREOUS ALTERATION, PATCHES <1.0 > 5.0CM REMNANT IRON CARBONATE, LIMONITE ALONG UNEVEN FRACTURES. FG-MG SUBHEDRAL TO EUHEDRAL PYRITE DISSEM THROUGHOUT, MANY SLICKENSIDES ALONG FRACTURES, MOD TO STRONG FOLIATION 40-45° THROUGHOUT. V. MINOR <1.0CM QTZ STRINGERS 1 PER METER. TALC ON FRACTURES.						
		48.8 MIN BROK CORE						

Sept 25/90
LP Walsh

YUNEGAN EXPLORATION LTD — DIAMOND DRILLHOLE LOG — HOLE #10
DATE STARTED: SEPT 26/90 — HOLE DIP: -87 — HOLE AZIMUTH 210° — COLLAR — THOMPSON-ANNOIA
DATE COMPLETED: SEPT 28/90 — HOLE LENGTH 60.0m
DRILLED BY: KWANE DRILLING LTD. GEOLOGIC LOG BY: MAN — SAMPLED BY: ROY ROBERTS

FROM	TO	LITHOLOGY	GRAPHIC LOG	SAMPLE No.	FROM	TO	Au g/t	Ag g/t
0	3.0	NO CORE RECOVERED						
3.0	10.8	VERY DARK GREEN, SPOTTED TO MOTTLED FRACTURED SERPENTINITE						
		VFG TO AMORPHOUS, VERY DARK GREEN TO BROWN GREY, FREQUENTLY SHEARED AND FRACTURED 1 PER 10CM, FRACTURES COATED BUFF WHITE IRON CARBONATE, CHLORITE, MINOR TALC. SHEARS - SLICKENSIDED @ 90°						
		3.0 - 5.6 10-20% DARK GREEN SILICEOUS CHLORITIC VOLC. VFG, MODERATELY TO PERVASIVELY SILICEOUS 5-10% DISSEM VFG PYRITE						
		3.0 - 5.6 BROKEN SPOTTED SERPENTINITE VERY DARK GREEN, FREQUENTLY FRACTURED TO SHEARED BUFF VFG CLAY OR IRON CARBONATE GRAINED, TRANSLUCENT GREY 'SOBRAUND' SPOTS, 3-4 PER CM², WEAK FOLIATION 70-90°						
		5.6 - 7.0 FAULT, GRAY GREEN TO DARK GREEN GOUGE NON TO LOOSELY CONSOLIDATED, TALCOSE SERPENTINITE		82654	10.0	11.0		
		7.0 - 10.8 MOTTLED DARK GREEN SERPENTINITE VFG, ANASTOMISING, GREY BUFF		82655	11.0	12.0		
		LOWER CONTACT SHEARED		82656	12.0	13.0		
10.8	20.6	GREYISH GREEN TO BUFF MOTTLED FE CARBONATE TALC ALTERED SERP		82657	13.0	14.0		
		FG CG, DARK GREY GREEN, COARSE GRAINED DISSEM SUB TO ANHEDRAL PATCHES BROWN MICA AND DARK GREEN CHLORITE, INCREASED PERVASIVE FE CARBONATE ALTERATION WITH INCREASING METERAGE. FRACTURES TREND 60° 1-4 MM MINOR 1 CM WIDE. TRANSLUCENT LIGHT GREEN TO ORANGE IRON CARBONATE, RARE QUARTZ INFILLING, MOD TO STRONGLY FOLIATED		82658	14.0	15.0		
		13.6 - 13.8 TALCOSE FE CARBONATE GOUGE @ 60-80° SHEAR		82659	15.0	16.0		
		16.2 - 19.1 FREQUENTLY FRACTURED; UNEVEN TO ROUGH TALC FRACTURES 17.0 - 17.3 GOUGE, V. BROKEN CORE 17.8 - 19.1 " "		82660	16.0	17.0		
		20.0 FOLIATION 72°		82661	17.0	18.0		
		LOWER CONTACT GRADATIONAL, SHEAR @ 20.6 65°		82662	18.0	19.0		
20.6	22.4	RUSTY ORANGE IRON CARBONATE ALTERED SERPENTINITE		82663	19.0	20.0		
		VFG-CG, STRONGLY PERVASIVELY FE CARBONATE ALTERED SERPENTINITE, MOTTLED TO MOD FOLIATED WAVES TO WISPS MASSIVE CHANGE FE CARBONATE, CORE BROKEN 3-20 CM, 90° UNEVEN.		82664	20.0	20.5		
		MINOR VFG DISSEMINATED PYRITE, INTERSTITIAL CHROMITE, AND TRANSLUCENT GREEN-YELLOW MICA		82665	20.5	21.0		
		LOWER CONTACT [illegible] SHEAR [illegible]						

DUNVEGAN EXPLORATION LTD. DIAMOND DRILL HOLE LTD. PAGE 2 of 3

FROM	TO	LITHOLOGY	GRAPHIC LOG	SAMPLE NO.	FROM	TO	Au g/t	Ag g/t
22.4	24.58	WHITE GREY MASSIVE QUARTZ		82666	21.0	21.5		
	•	Cq, WHITE-GREY, MASSIVE QUARTZ, MINOR CHLORITE COATED, V. MINOR GRAPHITIC COATINGS PREDOMINANTLY ON FRACTURES AT BOTTOM OF INTERVAL. CONTACTS SHEARED AND BROKEN, FAINT LIMONITE STAIN, TRACE TO NIL SULPHIDES, TRACE GREASE SLICKENSIDES		82667	21.5	22.0		
				82668	22.0	22.4		
		22.4 - 22.6 CHLORITIC SHEAR, MINOR QUARTZ STRINGERS AND VEINS, IRON CARBONATE THROUGHOUT		82669	22.4	22.6		
		22.6 - 23.1 BROKEN MASSIVE QUARTZ		82670	22.6	23.0		
		23.1 - 24.2 MASSIVE CG WHITE QUARTZ		82671	23.0	23.5		
		24.2 - 24.5 BROKEN MASSIVE GRAPHITIC, INCLUSIONS SHEARED DARK GREEN SERPENTINITE, V. MINOR LIMONITE STAIN SPARSELY DISSEM ALONG FRACTURES WITH OXIDIZED DISSEMINATED MG PYRITE 1% DISSEM PY		82672	23.5	24.0		
		LOWER CONTACT, FAULT		82673	24.0	24.5		
24.5	24.7	LIGHT GREEN LIMONITE STAINED, ALTERED NON CALC RHYOLITE DYKE						
		VFG, LIGHT GREY GREEN, NON CALCAREOUS RHYOLITE, MODERATELY GRADATIONALLY TO STRONGLY PERVASIVELY LIMONITE ALTERED, LIMONITIC FRONT - SUBPARALLEL TO CORE AXIS, MINOR VFG-CG QUARTZ STRINGERS CROSSCUT DYKE 0.1 - 0.5 CM WIDE, VFG DISSEM QUARTZ THROUGHOUT RHYOLITE; MINOR DISSEM PY, LOCALLY OXIDED IN STRINGERS DYKE VERY BROKEN TO LIMONITIC GOUGE		82674	24.5	24.7		
				82675	24.7	25.0		
				82676	25.0	25.5		
		LOWER CONTACT, FAULT.		82677	25.5	26.0		
24.7	52.4	BLACK TO LIGHT GREY BRECCIATED FOLIATED PYRITIC ARGILLITE		82678	26.0	27.0		
		VFG-CG, MIXED MODERATELY TO STRONGLY BRECCIATED, LOCALLY BANDED ARGILLITE TO GRITTY SEDIMENTS, WEAKLY TO MODERATELY CHLORITIC, FREQUENTLY FRACTURED TO LIMONITE/CHLORITE/GRAPHITE GOUGE. MINOR NARROW (UP TO 20 CM) WIDE BUFF GREY NON CALCAREOUS BRECCIATED, 0.1-1.0 CM WIDE QUARTZ STRINGERED RHYOLITE. LIMONITIC FRACTURES AND GLASS COATINGS ON PYRITE DISSEM THROUGHOUT, 10-15% PY, MINOR MG BLOBS PY MODERATELY TO STRONGLY FOLIATED:		82679	27.0	28.0		
		24.7 - 25.0 BROKEN CORE, CG 30						
		25.3 - 25.5 BRECCIATED GRITTY GREY PYRITIC LIMONITE DYKE						
		25.7 - 25.9 " " " " " "						
		26.0 - 27.0 BROKEN CORE, BANDING ~ 30°, GOUGE AT CONTACTS, 2 - 10 " IRR BAN, BR, CL ART						

DUNVEGAN EXPLORATION LTD — DIAMOND DRILL HOLE LOG — PAGE 383

FROM	TO	LITHOLOGY	GRAPHIC LOG	SAMPLE NO.	FROM	TO	Au g/t	Ag g/t
		29.6 - 30.0 BROKEN CORE, GOUGE		82680	28.0	29.0		
		30.0 - 30.2 MINOR BRECCIATED GREY RHYOLITE CROSSCUT BY 0.5CM WHITE QUARTZ STRINGERS STRG 25°, RHYOLITE CONTACTS AND MINOR LIMONITE STRINGERS /25°		82681	29.0	30.0		
		30.5 - 31.2 BROKEN CORE, BRECCIATED RHYOLITE, 10-20% VFG DISSEM PY, LIMONITE COATINGS ON FRACTURES MINOR QUARTZ STRINGERS WITH COUNTRY ROCK INCLUSIONS		82682	30.0	31.0		
				82683	31.0	32.0		
		31.2 - 32.5 MIXED GREY RHYOLITE BRECCIA, GRAPHITIC ARGILLITE MINOR SERP. FRACTURES ROUGH, LOCALLY SLICKENSIDED CHL (SERP), LIMONITE STAINED. VFG PY INTERSTITIALLY TO BRECCIA CLASTS, FRACTURE FILLING & DISSEMINATE		82684	32.0	33.0		
				82685	33.0	34.0		
		33.0 BANDING 50°		82686	34.0	36.0		
		33.6 - 36.0 BROKEN CORE, ROUGH GRAPHITIC, COARSELY BRECCIATED AND MIXED GREY BLACK ARGILLITE, MINOR GRAPHITIC GOUGE, RARE SLICKENSIDES		82687	36.0	38.0		
		36.5 - 37.2 BROKEN SLICKENSIDED CORE		82688	38.0	40.0		
		38.6 - 39.4 BROKEN MIXED GRAPHITIC ARGILLITE; LOWER 40.0 CM GRAPHITIC GOUGE.		82689	40.0	42.0		
		44.0 - 45.6 CORE BROKEN 2 - 20CM; GRAPHITIC SLICKENSIDES COMMON, LIMONITE STAIN. 41.0 - 41.5 VUGGY, PITTED CORE, WEATHERED OUT		82690	42.0	44.0		
		47.5 - 47.8 LIGHT GREY CHERTY PYRITIC ARGILLITE, BROKEN CORE		82691	48.0	50.0		
		47.8 - 50.9 BRECCIATED PYRITIC ARGILLITE CROSSCUT BY LIMONITE - PYRITE STRINGERS MINOR CHLORITIC GOUGE						
		50.9 - 52.4 GRAPHITIC CHLORITIC SHEARED ARGILLITE; GRITTY CG QUARTZ, CHL, 5% DISSEM FG PYRITE SHEAR @ 50°		82692	24.3	24.5	GRAB	
52.4	60.0 EOH	DARK GREEN FRACTURED TALCOSE SERPENTINITE		82693	32.0	32.2	GRAB	
		VFG, DARK GREEN, MOD TO STRONGLY SHEARED TALCOSE SERPENTINITE, MINOR <5% DISSEM PY, V. RARE QUARTZ STRINGERS (2 AT TOP OF INTERVAL)		82694	47.4	47.6	GRAB	
		52.4 - 52.8 ORANGY SHEARED FE-CARBONATE ALTERED SERPENTINITE						
		56.0 FOLIATION 42°						
		57.0 - 58.1 BROKEN CORE TO SHEAR AT EOH						

M. P. Wilson
Sept 29/90

DUNDEGAN EXPLORATION LTD.
DATE STARTED SEPT. 28/90
DATE COMPLETED SEPT. 29/90
DRILLED BY ACHAINE DRILLING LTD

HOLE DIP: -57° AZIMUTH 75°
TOTAL LENGTH (ft): 93.5 (m): 28.5
LOGGED BY RLM SAMPLED BY Roy ROBERTS

COLLAR: N:
E:
Z:

HOLE 3-90
PAGE 1 OF 1

FROM (m)	TO (m)	LITHOLOGY	GRAPHIC LOG	SAMPLE NO.	FROM	TO	Au g/t	Ag g/t
0	4.6	NO RECOVERY						
4.6	4.9	MG-MG VERY DARK GREEN FRACTURED, SLIGHTLY ALTERED SERPENTINITE; NUMEROUS (SMALL (<2cm) QTZ VEINLETS w/ VFG DISS SULPHIDES IN QTZ						
4.9	7.43	RUSTY ORANGE Fe CARB. ALTERED SERPENTINITE VFG-CG, STRONGLY PERVASIVELY ALTERED, CORE BROKEN						
7.43	7.5	GREY BLACK GRAPHITIC SHEAR BRECCIA (?) CORE VERY SOFT - MUSH						
7.5	10.2	GREYISH - BUFF MODERATELY - STRONGLY (AT LOWER CONTACT) Fe-CARB ALTERED SERPENTINITE; MOTTLED; CORE MUSH @ 10.1						
10.2	11.7	GREY - BLACK GRAPHITIC SHEARED ARGILLITE; NON PYRITIC						
11.7	21.0	GREYISH GREEN TO BUFF MOTTLED Fe CARBONATE TALC ALTERED SERPENTINITE - UNIT APPEARS AS 10.8-20.6 IN DDH 2-90; GRADES INTO AND OUT OF GREYISH GREEN CHLORITIC ALTERED SERP FROM 17.4-19.0		76304	24.6	25.2		
21	24.4	MODERATELY, LOCALLY TO PERVASIVELY CARBONATISED VERY DARK GREEN TO BUFF GREEN MOTTLED, SHEARED SERPENTINITE; 1-2 cm QTZ STRINGERS THROUGHOUT STRONGLY LIMONITIZED SHEARS / FRACTURES		76305	25.2	25.4		
				76306	25.4	25.7		
24.4	26.2	MASSIVE MILKY WHITE QTZ VEIN (S) — SEPARATED BY 15 cm DYKE		76307	25.7	26.0		
		24.4 - 25.3 MASSIVE QTZ; VERY MINIMAL GRAPHITIC SHEARING						
		25.3 - 25.45 GREENISH-GREY ALT. RHYOLITE DYKE; VFG PYRITE DISSEMINATED THROUGHOUT						
		25.45 - 25.5 QTZ - ABUNDANT GRAPHITIC SHEARS						
		25.5 - 25.6 GRAPHITIC SHEAR THROUGH QTZ VEIN						
		25.6 - 26.2 MASSIVE MILKY QTZ, ABUNDANT .2-1cm GRAPHITIC SHEARS						
26.2	26.25	GREY - GREEN ALT. (BLEACHED) RHYOLITE DYKE; LIMONITE STAINED, 1 cm QTZ STRINGER, NO SULPHIDES						
26.5	28.5	BLACK TO LIGHT GREY BRECCIATED FOLIATED PYRITIC ARGILLITE VFG-CG, MODERATELY TO STRONGLY BRECCIATED; LARGELY COARSELY BRECCIATED VARYINGLY PYRITIC						
	EOH							

DUNDEGAN EXPLORATION LTD.
DATE STARTED: SEPT. 29 /90
DATE COMPLETED: SEPT. 30 /90
DRILLED BY: KLUANE DRILLING LTD.

HOLE DIP: -78° AZIMUTH: 75°
HOLE LENGTH 117'
LOGGED BY: PLM SAMPLED BY

COLLAR: N E Z

HOLE 4-90

PAGE 1 OF 2

FROM (m)	TO (m)	LITHOLOGY	GRAPHIC LOG	SAMPLE NO.	FROM	TO	Au g/t	Hg g/t
0	3	NO CORE						
3	4	LFG TO AMORPHOUS, DARK GREEN PYRITIC SERPENTINITE, MRD. FRACTURES IRON OXIDE IN FRACTURES w/ MINOR ABUNDANT Py ; VFG DISSEM. Py THROUT						
4.1	7.9	BUFF MOTTLED Fe-CARB TALC ALTERED SERP. UPPER CONTACT OBSCURED BY LOSS OF CORE, LOWER CONTACT SHEARED TO GOUGE 4.1 - 6.0 BROKEN CORE 6.0 - 7.8 BUFF TO ORANGE MOTTLED, FRED. TALC/CALCITE STRINGERS VERY SOFT, HIGHLY ALTERED ROCK, SOME Fe STAINING BUT NO SULPH 7.8 - 7.9 GOUGE TO SHEARED CONTACT						
7.9	9.8	MG VERY DARK GREEN SERPENTINITE (TALCOSE), MOD TO STRONGLY SHEARED NO QTZ STRINGERS - VIRTUALLY ALL BROKEN CORE, APPROX 50% RECOVERY						
9.8	12.8	MG-CG GREYISH GREEN Fe CARBONATE TALC ALTERED SERPENTINITE, LIMONITE ON FRACTURES w/ MINOR OCCASIONAL QTZ VEINLETS, MINOR VFG DISSEMINATED PYRITE ; MODERATELY TO STRONGLY ABUNDANTLY ALTERED 2 CM MILKY WHITE QTZ VEINLET MARKS LOWER CONTACT						
12.8	14.5	VFG-MG SMOKEY GREY QTZ/CHALCEDONY ; FRACTURED, LOCALLY WHITE QTZ. FUCHSITE w/ PYRITE IN VERY SMALL STRINGERS AND CLOTS THROUT 90° TO CORE AXIS LOWER CONTACT IS GRADATIONAL INTO ARGILLITE UNIT 12.8 - 13.6 FG-MG GREY QTZ w/ MINOR FUCHSITE/Py IN 1% RATIO 13.6 - 14.5 FG-MG GREY QTZ w/ ABUNDANT FUCHSITE/Py PYRITE IN CLOTS ALONG FUCHSITE FRACTURES AS WELL AS VFG DISS IN QTZ ; MINOR LIMONITE ON FRACTURES						
14.5	16.1	BANDED MG-CG GREY - BLACK QTZ RICH ARGILLITE ; FRACTURED/BRECCIATED VERY MINOR VFG DISS. Py LOCALLY, WITH V. MINOR FUCHSITE 16.0 - 16.1 10 CM QTZ VEIN w/ DOGTOOTH XTAL INTERGROWTHS						
16.1	21.0	V. DARK GREY - BLACK BRECCIATED BANDED BARREN ARGILLITE ; < 2 CM QTZ VEINLETS ABUNDANT ; MINOR FUCHSITE, TRACE TO NIL SULPHIDES		82698	21.0	21.7		
				82699	21.7	22.9		
21.0	27	MASSIVE MILKY WHITE QTZ [illegible] OR FUCHSITE CLOTS						

DIAMOND DRILLHOLE LOG

HOLE 4-90

DUNVEGAN EXPLORATION LTD. – TOG PROPERTY

FROM	TO	LITHOLOGY
		20.75 – 21.65 9 cm GREENISH GREY VOLCANIC BRECCIA, < 1 cm (ALTERED DYKE) QTZ VEINLETS W/ LIMONITE RIMS W/ FG PYRITE
		21.65 – 22.6 VFG PY DISSEMINATED MASSIVE MICKY QTZ. VEIN, BARREN
	35.7	GREY – BLACK FRACTURED, BRECCIATED ARGILLITE; VFG DISSEM PYRITE AND MINOR FUCHSITE, A FEW SMALL (< 6 CM) QTZ VEINS; SUSPECTED V. GOLD (VFG)
		22.6 – 23.7 BLACK, FRACTURED, BANDED ARGILLITE, TRACE TO NIL SULPHIDES
		23.7 – 23.8 MILKY QTZ. VEIN, BRECCIATED CONTACTS, MINOR XTAL GROWTH ON RIMS, BARREN OF SULPHIDES
		23.8 – 28 BLACK/GREY COARSELY BRECCIATED/FRACTURED ARGILLITE W/ QTZ. STRINGERS < 2 CM ABUNDANT; 5–10% VFG DIS. PY
		28 – 32 AS ABOVE W/ SOME FUCHSITE IN QTZ, 10% DISS. F.G. PY
		32 – 32.05 QTZ VEIN, DOG TOOTH XTAL GROWTH @ MARGINS, 85° TO CORE, BARREN
		32.05 – 33.0 GREY BLACK ARGILLITE UNIT WITH SOME FUCHSITE IN QTZ, 10% DISS. F.G. ~ VFG. PYRITE
		33 – 33.05 QTZ VEIN, DOG TOOTH XTAL GROWTH @ MARGINS, 90° TO CORE AXIS, BARREN
		33.05 – 35.7 GREY ~ BLACK ARGILLITE, FRACTURED, FINER GRAINED THAN ABOVE, PYRITE BECOMES SCARCER TO NIL WITH DEPTH
		E.O.H. 20.10.01

SAMPLE	FROM	TO	
82700	22.9	23.9	
76301	23.9	24.9	
76302	24.9	25.7	
76303	33.0	33.6	GRAB

DUNIVEGAN EXPLORATION LTD.

DATE STARTED : [illegible]

DATE COMPLETED : OCT. 1 90

DRILLED BY : [illegible] DRILLING LTD

HOLE DIP: -65° AZIMUTH: 40° COLLAR N :
E :
Z :

TOTAL LENGTH (ft): 74.5 (m): 22.7

LOGGED BY : RCM

HOLE 5-90

PAGE 1 OF 1

FROM (m)	TO (m)	LITHOLOGY	GRAPHIC LOG	SAMPLE NO.	FROM	TO	Au g/t	Ag g/t
0	2.7	215% RECOVERY FRAMED/CASED CAVE : ROUNDED PIECES OF GREENISH-GREY ALTERED SERPENTINITE		76308	9.61	9.76		
				76309	9.76	10.25		
2.7	[illegible]	225% RECOVERY		76310	10.25	11.29		
		BUFF - ORANGY MG Fe CARB. ALTERED SERP ; BROKEN CORE, MODERATELY PERVASIVELY ALTERED		76311	11.29	11.47		
				76312	11.47	11.59	CHECK	
				76313	11.47	11.59		
6.4	7.9	[illegible] GREENISH-GREY FRACTURED SERPENTINITE ; NUMEROUS .5cm QTZ STRINGERS		76314	11.59	11.77	CHECK	
				76315	11.59	11.77		
				76316	11.77	12.08		
7.9	9.5	COMPLETELY DEFORMED GREENISH-GREY FAULT GOUGE ; CLAYEY CONSISTENCY 60-70% CORE (SIC) RECOVERY		76317	17.87	18.00		
				76318	18.00	18.30		
9.5	10.7	1.2 m MASSIVE MILKY WHITE QUARTZ VEIN, MINOR GRAPHITE SHEARING		76319	18.30	18.48		
				76320	18.48	18.61	CHECK	
		GRAPHITIC SHEARS W/ PYRITE MORE ABUNDANT AT UPPER AND LOWER CONTACTS (FOR 5-10 cm)		76322	18.48	18.61		
		10.7 - AZURITE / MALACHITE IN HAIRLINE FRACTURES ; BLACK SULPHIDE (TETRAHEDRITE?) IN V. SMALL FRACTURE FILLINGS AT LOWER CONTACT		76321	18.61	18.79	CHECK	
				76323	18.61	18.79		
				76324	18.79	18.91		
10.7	11	GREENISH GREY COMPLETELY DEFORMED CLAYEY FAULT GOUGE		76325	18.91	19.09		
				76326	19.09	19.22		
				76327	19.22	19.40		
11	[illegible].8	GREYISH GREEN Fe CARBONATE TALC ALTERED SERPENTINITE		76328	19.40	19.52		
				76329	19.52	19.70		
				76330	19.70	19.83		
12.8	14.3	GREY ; MOTTLED SHEARED SERPENTINITE ; SCUCRAL .5cm - 3cm QTZ VEINS 90° TO CORE AXIS		76331	19.70	19.83	CHECK	
				76332	19.83	20.01		
14.3	14.6	GREYISH GREEN MARIPOSITE ALTERED SERPENTINITE, LIMONITIC FRACTURES, SOME 1 cm QTZ STRINGERS		76333	19.83	20.01	CHECK	
				76334	20.01	20.31		
				76335	20.01	20.31	CHECK	
14.6	18.3	VERY DARK GREEN TO BLACK FRACTURED SERPENTINITE ; 99% CORE RECOVERY						
		20cm QTZ VEIN & 5cm QTZ VEIN W/ LIMONITIZED RIMS AT LOWER CONTACT						
18.3	19.6	1.3 m MASSIVE MILKY WHITE QUARTZ VEIN						
		19.3 - 19.4 10 cm FOLIATED, SHEARED, LIMONITIZED, ALTERED SERP						
		19.5 - 19.6 SULPHIDES IN HAIRLINE FRACTURES AND .1cm CLOTS, VISIBLE GALENA, CHALCOPYRITE, PYRITE ; VISIBLE GOLD ON CORE ENDS (GRAPHITE SHEAR)						
19.6	19.9	GREENISH GREY ALTERED AMPH CALC. RHYOLITE DYKE, PYRITIC						
19.9	22.7	BLACK TO GRAY MOTTLED BRECCIATED FOLIATED PYRITIC ARGILLITE ; PYRITE						
	E.O.H.	[illegible]						

DUNTUCAN EXACORATION LTD.
DATE STARTED: OCT. 3/90
DATE COMPLETED: OCT. 4/90
DRILLED BY KEARNE DRILLING LTD.

LITHOLOGY DRILLING SERVICES LTD
HOLE DIP: -[redacted]-80° AZ.: 40° COLLAR: N:
HOLE LENGTH: 72' 22m E:
LOGGED BY: RLM Z:
SAMPLED BY: R. ROBERTS

HOLE 6-90

PAGE 1 OF 1

FROM	TO	LITHOLOGY	SAMPLE NO.	FROM	TO	Au g/t	Ag g/t
0	3	10 % RECOVERY OF CRUMBLED FRAGMENTS IN OVERBURDEN AND WEATHERED BEDROCK ; CHUNKS OF BUIL QUARTZ @ VERY TOP, CONTAINING SOME SLIGHT AZURITE/MALACHITE STAINING ON ONE PIECE	76345	2.7	2.9		
			76346	6.3	6.4		
3	6	RUSTY ORANGE TO BUFF MOTTLED IRON CARBONATE ALTERED SERPENTINITE	76347	6.4	6.7		
			76348	6.7	7.0		
6	9.7	MASSIVE MILKY WHITE TO GREY MOTTLED QUARTZ — BROKEN CORE / METRE RECOVERED ie 25% RECOVERY	76349	7.0	7.3		
		- THERE APPARENTLY A POSSIBLE FAULTING OF THE QUARTZ INVOLVING GRAPHITIC HEALING FRACTURES AT DOWNHOLE END OF MORE GREY MOTTLED QUARTZ THAT DISPLAYS RARE, MINOR VFG PYRITE ; VERY POOR RECOVERY PRECLUDES ACCURATE OR RELIABLE DEPTH MEASUREMENTS	76350	7.3	7.6		
9.7	17.8	BROWNISH BLACK BRECCIATED GRAPHITIC ARGILLITE ; DECOMPOSED ; CORE ALL CRUMBLED POOR RECOVERY ; LIMONITE FRACTURES (CORE NOT COMPETENT ENOUGH FOR ∠ DETERMINATIONS	76376	7.6	7.9		
		- SOME AREAS ALTERED TO CLAYEY FAULT GOUGE, DARK OLIVE HUE	76377	7.9	8.5		
			76378	8.5	8.8		
17.8	22 E.O.H.	MG STRONGLY ALTERED LT-GREY TO GRECNISH GREY TALC ALTERED SERPENTINITE (MARIPOSITE) - PYRITE TO 1mm GRAINS ASSOCIATED WITH MARIPOSITE IN LISTWANITE FACIES	76379	8.8	9.8		
		17.8 - 18.3 MOTTLED GRAYISH FRACTURED LAMINAR SERP., WEAKLY TO NIL PYRITEED					
		18.3 - 18.45 MARIPOSITE & VFG 10% Py, MGRAINED					
		18.45 - 20.4 PURPLISH GREY MOTTLED, MARIPOSITE & TALC CLOTS TO .5 cm					
		20.4 - 22.0 AS ABOVE, WITH GREATER RUSTY (LIMONITIC) FRACTURE COATINGS EOH					

DUNCAN EXPLORATION

DATE STARTED : OCT. 03/90
DATE COMPLETED : OCT. 03/90

DIAMOND DRILL TABLE LOG
HOLE DIP : -54° AZIMUTH : 340°
TOTAL LENGTH (F): 36 (M): 11

COLLAR N
E
Z

HOLE 7-90

DRILLED BY: KLUANE DRILLING LTD.

PAGE 1 OF 1

FROM (m)	TO (m)	LITHOLOGY	SAMPLE NO.	FROM	TO
0	2.4	NO CORE - OVERBURDEN			
2.4	6.7	GREYISH GREEN TO BUFF, MOTTLED FE-CARB TALC ALTERED SERPENTINITE FG-CG, MODERATELY TO STRONGLY FE CARB ALTERED			
		2.4 - 3.0 POOR RECOVERY, MIXED ROUNDED UNRELIABLE FRAGMENTS (CAVED)			
		3.0 - 5.4 GRY-GREEN TALCOSE SERP, POOR RECOVERY — CRUMBLED PIECES WISPY TALC, LIMONITE ON SHEARS	76336	6.1	6.3
		5.4 - 5.8 ORANGY FE CARB PERVASIVELY STRONGLY ALTERED SERP LOWER CONTACT GRADATIONAL	76337	6.3	6.7
		5.8 - 6.1 GRY GREEN FE CARB TALC ALTERED SERP	76338	6.7	6.9
		6.1 6.7 SAND - REAMED THROUGH CAVE IN	76339	6.9	7.3
			76340	7.3	7.9
6.7	9.5	MILKY WHITE MASSIVE QUARTZ VEIN 50% RECOVERY, SOME SECTIONS DRILLED	76341	7.9	8.2
		- DUE TO POOR RECOVERY AND FRACTURED/ROUNDED NATURE OF CORE, STRATIGRAPHY (IN REGARDS TO APPARENT FACIES CHANGES - IE MORE OR LESS ABUNDANT GRAPHITIC SHEARS IN FRACTURES) IS UNRELIABLE	76342	8.2	8.5
		- POSSIBLE ZONATION OF VEIN	76343	8.5	9.0
		- NO V.G., TRACE SULPHIDES			
9.5	11	MG VERY SLIGHTLY PYRITIC FRACTURED MODERATELY ALTERED SERP - VERY POOR RECOVERY; CRUMBLED FRAGMENTS	76344	9.0	9.5
	E.O.H.				

90.10.06

DUNVEGAN EXPLORATION LTD.

DATE STARTED: OCT 3/90

DATE COMPLETE: OCT 4/90

DRILLED BY: KLUANE DRILLING LTD.

HOLE DIP: -50° AZIMUTH: 360° COLLAR N: E: Z:

TOTAL LENGTH (F): 100 (M): 30.5

LOGGED BY: RLM

HOLE B-90

FROM (M)	TO (M)		SAMPLE NO	FROM	TO
0	2.2	NO RECOVERY ; OVERBURDEN / WEATHERED BEDROCK			
			76380	0.0	1.5
2.2	6.1	ALTERED ULTRAMAFIC - GREY ~ LT. GREEN SOME FG CARB TALC ALTERED SERP - FG, MOTTLED, SOME LIGHT GREY			
		* NOTE AT 2.3 M, SEVERAL CRUMBLED PIECES (IN AREA OF POOR RECOVERY) OF BLK QUARTZ ∴ A SMALL CROSS FRACTURE (?) STRUCTURE OF QUARTZ VEIN, FROM 5-10 CM THICK OCCURS. BROKEN/CRUMBLED CORE IN ENTIRE TOP 3 METRES MAKES DEPTH DETERMINATION OF THIS SMALL VEIN UNRELIABLE.			
		- ALL ABOVE UNIT(S) RETURNED APPROX 25% CORE RECOVERY	76381	6.4	6.7
6.1	9.5	MASSIVE MILKY WHITE BLUE QUARTZ VEIN ; APPROX 20% RECOVERY	76382	6.7	7.0
		- ALL CORE BROKEN, CRUMBLED, VERY POOR RECOVERY - UNRELIABLE STRATIGRAPHY			
		- QUARTZ AT 9.46-9.5 (4cm) HAS MINOR Py, GRAPH, SHEARS	76383	7.0	8.2
9.5	9.6	CG OLIVE ~BUFF ALTERED SERP WITH FRAGMENTS OF ALTERED RHYOLITE DYKE	76384	8.2	9.5
		- DYKE FRAGMENTS TO 2 cm, DISTORTED			
9.6	10.7	RUBBLE FROM CAVED MATERIAL ; ALTERED SERP.			
10.7	12.8	FG-MG LT. GREENISH GREY ALTERED ULTRAMAFICS ; PYRITIC, LIMONITE ALONG FRACTURES 45° TO CORE AXIS			
12.8	13.4	BLACK, LAMINATED GRAPHITIC MATERIAL ; CORE ALL CRUMBLED FRAGMENTS			
13.4	17.9	MG BLACK PYRITIC GRAPHITIC ARGILLITE w/ THIN FELSIC BANDS ; QTZ VEINLETS CONCENTRATED AND FRACTURED			
		QTZ VEINLETS TO 1 cm INCREASE WITH DEPTH, GRADES INTO LT GREY INDURATED TUFF AT LOWER CONTACT			
		LIMONITE ALONG ALL FRACTURES @ 65° TO CORE AXIS			
17.9	21.3	LT. GREY APHANITIC - PORPHYRITIC TUFF (?) WITH SOME FLOW STRUCTURE QTZ VEINLETS TO 1 cm PARALLEL TO FLOW (45° TO CORE AXIS) WITH MINOR LIMONITIC SEAMS ; VFG DISSEMINATED PYRITE WITHIN / ADJACENT TO QUARTZ VEINING			
		- FLOWS ARE 2-5cm THICK, OCCASIONAL 5 cm INTERCALATIONS OF [illegible]			

NOTE: LEAD SHOT FROM DRILLERS CORE TUBE MALLET FELL INTO THIS BOX - CAUSE OF CONTAMINATION IF ASSAYS CONTAMINATED. RLM

DUNVEGAN [illegible]

[illegible] TOC PROPERTY

FROM (m)	TO (m)	LITHOLOGY
21.3	24.0	BUFF FG-MG FE CARB TALC ALTERED SERPENTINITE ; CLOTS TO 2 CM TALC, CHROME MICA VARIES IN ABUNDANCE ALONG SECTION, OCCURS ALONG HAIRLINE FRACTURES - STRONGLY, PERVASIVELY ALTERED
24.0	24.3	ABOVE UNIT GRADES INTO (over 5 cm) LT. GREY FACIES W/ ABUNDANT CHROME MICA, CHLORITE CLOTS, FRACTURED - FUCHSITE/ MARIPOSITE MORE ABUNDANT AT LOWER CONTACT, ALONG WITH MINOR VFG PYRITE ARRANGED WITHIN MARIPOSITE CONCENTRATIONS
24.3	30.5 E.O.H	LT GREY TO SLIGHTLY GREENISH GREY MOTTLED TALC ALTERED SERPENTINITE
		24.3 - 29.3 DARK GREENISH GREY, RARE LIMONITE ON FRACTURED FACES OCCAISIONAL 1cm/ QTZ - CARB VEINLET 90° TO AXIS
		29.3 - 30.5 - LT. GRAY, FG, PURPLISH TALC CLOTS TO .5 CM GIVES PURPLISH HUE TO CORE; SOME .2 CM V. LIGHT GREENISH TALC CLOTS - RARE PYRITE TO 1mm IN MATRIX

No SAMPLES TAKEN

DUNVEGAN EXPLORATION LTD.

TOG PROPERTY
1990
DIAMOND DRILL PROGRAM

ASSAY CERTIFICATES
(INCLUDING CHECK SAMPLES)

Appendix 4

Northern Analytical Laboratories ltd.

TRACE LEVEL GOLD FIRE ASSAY

15g of sample is mixed with a suitable flux in a 30g crucible, inquarted with 2 mg Ag and fused at 1900 F. The contents of the crucible are poured into a mould and allowed to cool. The slag is broken off and discarded. The lead button is then pounded into a cube.

The lead button is placed into a bone ash cupel which has been preheated to 1800 F. When the lead is completely molten, the temperature is dropped to 1750 F. The dampers are opened to allow air inside the furnace. When cupelation is complete, the cupel is taken out and allowed to cool.

The silver-gold prill is picked out of the cupel and dropped into a 16 x 150 mm test tube. 2 mls of 1:1 Nitric Acid is added and the test tube is heated to dissolve the silver. 3 mls of HCl are then added to dissolve the gold. The test tube is made up to 10 mls using a reference, mixed and run on the A.A.

ORE GRADE GOLD FIRE ASSAY

The furnace procedure is identical to the above method except that 30g or one Assay Ton of sample is usually weighed.

The resulting silver-gold prill is picked out of the cupel and hammered flat and dropped into a porcelein crucible. 1:9 Nitric acid is added and the crucible is placed on a 250 F hot plate until all the silver is dissolved. Some Conc. Nitric is added to ensure complete dissolution of the silver. The Silver Nitrate solution is decanted off and the gold is washed three times with D.I. water. The crucible is then replaced on the hot plate to dry.

The gold is annealed using a propane torch and allowed to cool to room temperature. The gold is now weighed on a micro-balance to one microgram. After calculations, oz/t or g/t gold is reported.

Silver is calculated by weighing the bead prior to parting and subtracting the weight of gold.

FREE GOLD FIRE ASSAY

Free or metallic gold in the original sample pulp is screened off using a 100 mesh sieve. The -100 mesh pulp is assayed as above for ore grade gold fire assay. The entire +100 mesh fraction is fire assayed and the metallic gold is weighed. the result is a calculated weighted average with both the + and -100 mesh assays reported.

Northern Analytical Laboratories ltd.

ATOMIC ABSORPTION ANALYSIS

Geochem Digestion [Trace Level Analysis]

0.500g of sample is weighed into a 16 x 150 mm test tube. 2 mls of 1:1 Nitric Acid is added and the test tube is placed in a boiling water bath for 20 minutes. 3 ml of HCl is added and the sample is heated for on hour. When digestion is completed, the sample is cooled in a cold water bath. The test tube is then bulked to 10 mls using a reference, mixed and allowed to settle. The sample is now ready to run on the A.A.

For ICP the sample is digested in one step using 5 mls of 3 parts HCl, 1 Part Nitric Acid and 2 parts water and heated for one hour in a hot water bath.

Assay Digestion [Ore Level Analysis]

1.000g of sample is weighed into a class A 100 ml volumetric flask. 5 mls of Nitric Acid is added and the flask is placed on a 400 F hot plate until the red fumes indicating reaction subside. 20 mls of water* and 10 mls of HCL are added and placed on the hot plate for 5 minutes. The flask is then bulked to the neck with water and brought to a boil. The flask is then cooled, bulked to the mark, shaken and allowed to settle prior to running on the A.A.

* Some elements require special treatment. For example, Sb requires 20 mls 10% Tartaric acid.

105 Copper Road, Whitehorse, YT, Y1A 2Z7 Ph: (403) 668-4968 Fax: (403) 668-4890

CAVENDISH ANALYTICAL LABORATORY LTD.

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CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB
105 COPPER RD WHITEHORSE
YUKON

PROJECT : W08453
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-1015A
INVOICE # : NAL1015A
DATE ENTERED : OCT 16, 1990
FILE NAME : P522
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	76308	13	29	44	47	0.7	63	5	233	0.79	37	n\a	ND	ND	278	1	7	8	15	1.42	0.01	3	133	1.48	123	0.01	5	0.36	0.01	0.01	2	1
	76309	15	25	62	40	0.7	9	1	43	0.23	12	n\a	ND	ND	8	1	4	5	4	0.07	0.01	1	77	0.07	102	0.01	5	0.03	0.01	0.01	1	1
	76310	38	18	24	24	0.1	10	1	50	0.48	14	n\a	ND	ND	3	1	4	2	4	0.02	0.01	1	157	0.03	39	0.01	5	0.02	0.01	0.01	1	1
	76311	19	46	14	11	2.1	7	1	24	0.23	10	n\a	ND	ND	1	1	4	2	3	0.01	0.01	1	59	0.01	28	0.01	5	0.01	0.01	0.01	1	1
	76313	29	1645	402	156	51.7	15	2	35	0.37	94	n\a	ND	ND	3	4	603	2	6	0.02	0.01	1	85	0.03	87	0.01	5	0.02	0.01	0.01	1	1
	76315	19	341	471	199	9.1	47	4	131	0.56	76	n\a	ND	ND	116	9	145	2	5	0.93	0.01	2	61	1.08	30	0.01	5	0.06	0.01	0.01	2	1
	76316	3	46	62	80	0.7	694	39	1055	3.16	599	n\a	ND	ND	323	2	59	2	53	5.63	0.03	7	247	6.79	74	0.03	5	1.45	0.01	0.01	1	2
	76317	15	17	19	31	0.4	176	12	225	1.05	157	n\a	ND	ND	82	1	30	2	7	0.87	0.01	2	49	1.59	40	0.01	5	0.08	0.01	0.01	3	1
	76322	20	26	120	137	0.6	32	3	49	0.31	18	n\a	ND	ND	4	1	5	2	3	0.05	0.01	1	40	0.08	474	0.01	5	0.03	0.01	0.01	1	1
	76323	19	53	12	25	0.4	48	3	45	0.38	45	n\a	ND	ND	9	1	8	4	5	0.07	0.01	1	43	0.17	25	0.01	5	0.07	0.01	0.01	1	1
	76324	16	92	19	80	1.4	71	7	291	1.13	81	n\a	ND	ND	136	1	29	4	7	1.07	0.01	4	62	1.21	34	0.01	5	0.09	0.01	0.01	4	1
	76325	6	268	31	610	1.5	402	37	1011	6.54	189	n\a	ND	ND	91	2	40	2	21	0.86	0.01	25	68	5.03	173	0.01	5	0.45	0.01	0.01	4	1
	76326	13	288	42	1548	1.8	208	16	348	2.59	101	n\a	ND	ND	16	5	27	2	10	0.14	0.01	11	51	1.47	104	0.01	5	0.27	0.01	0.01	2	1
	76327	17	17	13	173	0.1	15	2	44	0.31	12	n\a	ND	ND	42	2	3	2	3	0.21	0.01	1	52	0.18	14	0.01	5	0.03	0.01	0.01	1	1
	76328	33	18	12	210	0.1	18	2	47	0.46	11	n\a	ND	ND	12	2	2	2	4	0.06	0.01	1	97	0.09	16	0.01	5	0.04	0.01	0.01	3	1
	76329	14	20	11	639	0.1	19	2	19	0.24	9	n\a	ND	ND	1	1	2	2	3	0.01	0.01	1	40	0.06	11	0.01	5	0.05	0.01	0.01	2	1
	76330	26	19	16	273	0.1	10	2	33	0.32	10	n\a	ND	ND	5	2	3	2	3	0.03	0.01	1	74	0.04	10	0.01	5	0.02	0.01	0.01	1	1
	76332	23	2003	3398	4564	93.9	11	3	29	0.32	48	n\a	35	ND	3	41	1167	2	3	0.01	0.01	2	53	0.02	49	0.01	16	0.05	0.01	0.01	4	1
	76334	2	146	245	1731	2.3	88	33	972	5.27	175	n\a	ND	ND	565	14	48	2	42	4.90	0.25	47	57	3.63	731	0.05	65	0.94	0.02	0.01	2	3
	76336	5	86	116	143	3.6	433	41	409	2.13	137	n\a	ND	ND	127	2	20	2	11	0.91	0.01	4	116	3.40	66	0.01	5	0.25	0.01	0.01	63	1
	76337	14	32	182	160	2.7	99	10	73	0.62	228	n\a	ND	ND	24	1	4	4	5	0.15	0.01	1	83	0.41	443	0.01	31	0.08	0.01	0.01	7	1
	76338	12	18	21	15	3.7	23	3	42	0.19	10	n\a	ND	ND	3	1	2	7	3	0.02	0.01	1	38	0.10	15	0.01	5	0.01	0.01	0.01	5	1
	76339	19	17	39	22	0.6	21	3	61	0.30	54	n\a	ND	ND	6	1	2	4	3	0.05	0.01	1	58	0.09	38	0.01	5	0.02	0.01	0.01	3	1
	76340	13	30	21	15	7.4	32	3	63	0.24	11	n\a	ND	ND	35	1	2	4	4	0.24	0.01	1	41	0.19	6	0.01	5	0.02	0.01	0.01	2	1
	76341	19	7	10	14	0.1	9	1	26	0.23	10	n\a	ND	ND	3	1	2	8	3	0.02	0.01	1	54	0.03	15	0.01	5	0.01	0.01	0.01	4	1
	76342	11	19	28	15	0.5	15	1	25	0.18	10	n\a	ND	ND	7	1	2	3	3	0.07	0.01	1	31	0.07	13	0.01	5	0.01	0.01	0.01	2	1
	76343	19	8	14	11	0.3	14	2	43	0.24	7	n\a	ND	ND	2	1	2	13	4	0.02	0.01	1	57	0.03	11	0.01	5	0.01	0.01	0.01	3	1
	76344	14	17	26	20	0.8	13	2	464	0.81	25	n\a	ND	ND	721	1	11	2	7	3.87	0.01	3	66	2.32	19	0.01	5	0.02	0.01	0.01	6	1
	76345	13	8	11	17	0.1	68	6	119	0.76	12	n\a	ND	ND	22	1	2	2	16	0.20	0.01	1	46	0.69	15	0.06	5	0.22	0.01	0.01	3	1
	76346	17	23	12	16	0.2	54	6	72	0.60	60	n\a	ND	ND	16	1	4	7	13	0.12	0.01	1	63	0.62	15	0.01	5	0.34	0.01	0.01	2	1
	76347	16	12	9	9	0.1	20	3	42	0.26	21	n\a	ND	ND	2	1	2	6	5	0.02	0.01	1	57	0.11	15	0.01	5	0.07	0.01	0.01	3	1
	76348	13	8	7	6	0.1	20	2	31	0.18	13	n\a	ND	ND	2	1	2	3	4	0.02	0.01	1	44	0.05	6	0.01	5	0.03	0.01	0.01	2	1
	76349	15	4	4	5	0.1	8	1	24	0.17	6	n\a	ND	ND	1	1	2	3	3	0.01	0.01	1	46	0.01	5	0.01	5	0.01	0.01	0.01	2	1
	76350	18	6	5	9	0.1	7	1	22	0.21	6	n\a	ND	ND	1	1	2	4	3	0.01	0.01	1	56	0.01	8	0.01	5	0.01	0.01	0.01	1	1
	76376	19	5	5	7	0.1	8	1	44	0.25	7	n\a	ND	ND	9	1	2	3	3	0.08	0.01	1	59	0.05	9	0.01	5	0.01	0.01	0.01	2	1
	76377	8	125	65	105	7.6	108	6	568	1.58	112	n\a	ND	ND	727	1	28	2	13	4.92	0.02	6	61	3.05	32	0.01	25	0.08	0.01	0.01	4	1
	76378	10	173	110	62	12.6	20	2	462	1.16	40	n\a	ND	ND	1103	1	63	2	11	6.53	0.02	5	75	4.08	23	0.01	22	0.06	0.01	0.01	4	1
	76379	11	130	461	66	9.4	23	3	180	0.62	47	n\a	ND	ND	203	2	64	2	9	1.21	0.01	2	50	0.99	20	0.01	11	0.12	0.01	0.01	5	1
	76380	10	64	47	26	3.1	484	27	356	1.51	23	n\a	ND	ND	50	1	5	2	7	0.30	0.01	1	133	4.54	36	0.01	5	0.08	0.01	0.01	5	1
	STD-G9	18	237	379	461	1.2	18	3	116	0.84	184	n\a	ND	ND	16	1	2	2	13	0.61	0.02	6	37	0.29	46	0.02	8	0.20	0.01	0.01	3	1

CERTIFIED BY : S+S W. Reno

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB
105 COPPER RD WHITEHORSE
YUKON

PROJECT : W08453
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-1015A
INVOICE # : NAL1015A
DATE ENTERED : OCT 16, 1990
FILE NAME : P522
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	76381	13	20	42	14	1.0	177	17	233	0.81	282	n\a	ND	ND	390	1	11	2	8	1.97	0.01	2	113	1.94	15	0.01	5	0.06	0.01	0.01	5	1
	76382	16	8	26	22	0.2	11	2	36	0.22	15	n\a	ND	ND	8	1	2	2	3	0.05	0.01	1	49	0.05	7	0.01	5	0.01	0.01	0.01	3	1
	76383	19	8	17	11	0.3	8	1	31	0.23	9	n\a	ND	ND	2	1	2	2	3	0.01	0.01	1	55	0.02	7	0.01	5	0.01	0.01	0.01	2	1
	76384	16	81	22	24	1.1	62	4	93	0.78	38	n\a	ND	ND	22	1	9	2	11	0.20	0.01	2	53	0.21	46	0.01	5	0.12	0.01	0.01	2	1
	76318	8	35	21	105	1.2	381	31	853	3.39	259	n\a	ND	ND	230	1	53	2	22	2.35	0.01	10	105	5.54	79	0.01	5	0.50	0.01	0.01	6	1
	STD-D	4	135	119	590	4.6	9	2	76	0.95	26	n\a	ND	ND	11	3	9	2	4	0.12	0.04	7	4	0.08	217	0.01	177	0.18	0.02	0.01	10	1
	STD-S	22	801	503	498	17.5	222	292	888	3.41	316	n\a	54	620	674	159	784	407	108	0.37	2.50	998	37	0.44	241	0.13	596	1.44	0.10	0.01	266	49

CERTIFIED BY : W. Leung

CAVENDISH ANALYTICAL LABORATORY LTD.

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CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB
105 COPPER RD.
WHITEHORSE YUKON

PROJECT : WO#6430 & 6433
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-10028
INVOICE # : NAL10028
DATE ENTERED : OCT 03, 1990
FILE NAME : P10028
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% K	PPM W	PPM EE
	STDS	21	782	494	494	16.8	233	307	857	3.33	291	N\A	47	565	646	144	785	383	99	0.34	2.36	957	106	0.41	220	0.12	522	1.37	0.09	0.01	278	45
	82601	1	150	3	38	0.6	1121	62	489	3.19	25	N\A	ND	ND	25	1	3	2	27	0.66	0.09	4	381	9.66	20	0.01	25	0.32	0.01	0.01	3	2
	82602	1	45	24	44	0.3	1481	75	672	3.31	23	N\A	ND	ND	9	1	5	2	15	0.30	0.02	3	301	12.32	17	0.01	27	0.20	0.01	0.01	5	1
	82603	1	32	3	24	0.2	1524	78	718	2.98	15	N\A	ND	ND	6	1	2	2	9	0.18	0.01	2	155	11.93	10	0.01	32	0.11	0.01	0.01	3	1
	82604	1	35	2	28	0.2	1596	80	511	3.52	2	N\A	ND	ND	5	1	2	2	11	0.13	0.01	2	198	14.57	11	0.01	49	0.14	0.01	0.02	1	1
	82605	1	31	3	28	0.4	1447	72	521	3.31	8	N\A	ND	ND	6	1	2	2	9	0.25	0.01	2	160	14.05	9	0.01	22	0.15	0.01	0.02	1	1
	82606	1	28	2	20	0.2	1546	78	524	3.01	25	N\A	ND	ND	2	1	2	2	1	0.13	0.01	2	88	14.56	9	0.01	33	0.02	0.01	0.02	1	1
	82607	1	22	2	20	0.6	1077	72	403	2.58	15	N\A	ND	ND	2	1	2	2	1	0.08	0.01	2	40	10.62	7	0.01	8	0.01	0.01	0.01	1	1
	82608	1	21	3	16	0.4	698	57	421	2.77	4	N\A	ND	ND	18	1	2	2	1	0.24	0.01	2	26	9.97	7	0.01	5	0.01	0.01	0.01	1	1
	82609	1	43	2	12	0.4	790	57	470	2.66	23	N\A	ND	ND	14	2	2	5	1	0.14	0.01	2	42	8.75	8	0.01	5	0.03	0.01	0.01	1	1
	82611	1	34	2	12	0.7	561	41	311	2.68	72	N\A	ND	ND	2	1	3	2	2	0.05	0.01	3	42	8.03	5	0.01	5	0.03	0.01	0.01	1	1
	82612	1	20	1	8	0.1	678	52	187	2.41	73	N\A	ND	ND	3	2	2	4	2	0.04	0.01	2	50	6.76	7	0.01	5	0.01	0.01	0.01	1	1
	82613	1	17	1	12	0.1	757	59	324	2.71	55	N\A	ND	ND	3	1	5	8	4	0.05	0.01	2	74	6.77	8	0.01	5	0.04	0.01	0.01	1	1
	82614	2	27	9	22	0.4	755	56	488	2.55	274	N\A	ND	ND	30	1	13	9	6	0.24	0.01	2	106	7.12	11	0.01	5	0.07	0.01	0.01	1	1
	82615	7	28	16	32	1.1	801	40	495	1.95	483	N\A	ND	ND	167	1	31	9	22	1.62	0.02	7	101	3.40	39	0.01	5	0.60	0.01	0.01	2	1
	82616	7	18	12	10	0.5	54	6	54	0.29	46	N\A	ND	ND	13	1	8	13	6	0.10	0.03	2	19	0.29	8	0.01	5	0.08	0.01	0.01	1	1
	82617	8	216	16	68	10.8	371	25	678	2.69	493	N\A	ND	ND	250	1	42	3	48	2.71	0.02	9	101	3.65	49	0.02	5	1.28	0.01	0.01	1	2
	82618	9	31	3	10	1.3	34	4	73	0.26	33	N\A	ND	ND	25	1	9	2	5	0.21	0.03	2	19	0.24	14	0.01	5	0.07	0.01	0.01	1	1
	82619	7	47	22	66	0.7	183	21	473	2.73	170	N\A	ND	ND	188	1	27	2	35	1.80	0.08	16	42	2.42	150	0.03	18	0.76	0.01	0.01	1	1
	82620	7	78	12	106	1.0	234	20	618	4.62	333	N\A	ND	ND	147	1	41	6	24	1.49	0.03	13	35	3.26	90	0.01	59	0.55	0.01	0.01	1	1
	82621	7	46	16	47	0.4	28	9	113	1.61	36	N\A	ND	ND	20	1	12	3	5	0.16	0.05	9	14	0.40	22	0.01	119	0.13	0.01	0.01	1	1
	82622	7	38	18	43	0.1	29	7	106	1.43	39	N\A	ND	ND	24	1	6	6	6	0.24	0.04	6	19	0.22	31	0.01	97	0.14	0.01	0.01	1	1
	82623	9	37	12	46	0.1	35	8	160	1.50	36	N\A	ND	ND	45	1	9	3	9	0.47	0.04	7	27	0.48	46	0.01	90	0.20	0.01	0.01	1	1
	82624	12	94	18	100	3.3	139	13	243	2.39	171	N\A	ND	ND	68	1	19	6	30	0.74	0.06	7	40	1.31	60	0.01	87	0.66	0.01	0.01	2	1
	82625	15	82	8	146	1.1	249	29	512	3.74	274	N\A	ND	ND	70	1	41	8	26	0.88	0.11	9	42	1.52	85	0.01	70	0.71	0.01	0.01	1	1
	82626	4	92	6	143	0.6	106	46	900	5.60	126	N\A	ND	ND	60	1	11	7	17	0.97	0.07	4	22	1.86	68	0.01	93	0.30	0.01	0.01	1	1
	82627	6	90	21	130	0.7	127	25	573	3.77	215	N\A	ND	ND	93	1	24	5	12	1.26	0.08	4	22	1.01	59	0.01	38	0.41	0.01	0.01	1	1
	82628	4	122	13	139	0.7	111	46	1044	6.31	280	N\A	ND	ND	136	1	20	2	27	2.11	0.07	3	19	1.79	87	0.01	307	0.52	0.01	0.01	1	1
	82629	4	132	136	389	3.5	90	37	574	6.63	399	N\A	ND	ND	105	5	28	3	22	1.47	0.05	3	14	1.24	60	0.01	593	0.68	0.01	0.01	3	1
	82630	1	189	13	197	1.0	84	47	1190	6.89	120	N\A	ND	ND	123	2	13	4	28	2.07	0.10	3	19	2.39	65	0.01	38	0.25	0.01	0.01	1	1
	82631	2	140	12	111	0.1	76	46	1257	5.62	96	N\A	ND	ND	205	1	19	8	26	3.93	0.07	5	21	2.44	60	0.01	5	0.23	0.01	0.01	2	1
	82632	2	130	10	88	0.2	85	37	1158	5.42	95	N\A	ND	ND	140	1	10	5	26	2.88	0.06	3	22	2.09	45	0.01	5	0.22	0.01	0.01	3	1
	STANDARD-69	17	199	327	376	0.2	13	3	104	0.74	155	N\A	ND	ND	14	1	3	21	11	0.51	0.05	5	34	0.21	38	0.01	5	0.17	0.01	0.01	2	1

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CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB
105 COPPER RD.
WHITEHORSE YUKON

PROJECT : WO#8430 & 8433
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 90-10020
INVOICE # : NAL10020
DATE ENTERED : OCT 03, 1990
FILE NAME : P10020!
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	82633	1	169	1	134	0.1	151	50	1193	6.27	115	N\A	ND	ND	118	1	8	2	27	2.60	0.05	4	51	2.37	77	0.01	5	0.37	0.01	0.01	1	1
	82634	2	122	8	102	0.4	103	34	818	4.87	83	N\A	ND	ND	116	1	7	6	21	2.05	0.05	5	35	1.77	69	0.01	12	0.31	0.01	0.01	1	1
	82635	3	78	11	87	0.1	74	31	677	4.12	93	N\A	ND	ND	106	1	2	9	18	1.79	0.04	5	35	1.48	65	0.01	97	0.41	0.01	0.01	1	1
	82636	8	44	12	68	1.0	389	28	660	2.93	221	N\A	ND	ND	96	1	9	10	23	1.31	0.06	9	90	5.89	102	0.01	58	0.53	0.01	0.01	1	1
	82637	9	48	19	72	0.7	389	28	615	2.83	251	N\A	ND	ND	84	1	12	10	24	1.15	0.06	9	88	5.90	129	0.01	53	0.55	0.01	0.01	1	1
	82638	4	67	6	36	0.4	1028	58	480	2.94	656	N\A	ND	ND	52	1	66	11	15	0.84	0.01	3	227	9.30	35	0.01	31	0.28	0.01	0.01	1	1
	82639	3	60	2	36	1.0	1064	67	461	3.16	427	N\A	ND	ND	70	2	41	6	18	1.42	0.01	3	216	9.95	25	0.01	70	0.34	0.01	0.01	1	1
	82640	3	37	3	31	1.0	954	59	632	3.15	134	N\A	ND	ND	115	2	27	2	19	2.58	0.01	4	194	10.88	30	0.01	29	0.35	0.01	0.01	1	1
	82641	3	52	2	32	0.4	1084	63	443	3.22	794	N\A	ND	ND	71	2	75	4	18	1.19	0.01	3	176	10.70	25	0.01	5	0.32	0.01	0.01	1	1
	82642	1	26	1	26	0.2	846	56	346	3.00	261	N\A	ND	ND	13	2	30	8	15	0.22	0.01	3	149	11.03	16	0.01	5	0.25	0.01	0.01	1	1
	82643	1	35	2	29	0.1	1001	55	535	2.93	1013	N\A	ND	ND	72	2	46	2	11	0.78	0.01	1	141	11.13	22	0.01	5	0.12	0.01	0.01	1	1
	82644	1	34	3	35	0.9	554	38	590	3.17	227	N\A	ND	ND	105	1	51	2	17	1.31	0.01	2	189	10.56	20	0.01	5	0.31	0.01	0.01	5	1
	82645	1	29	2	28	0.4	654	47	618	3.05	177	N\A	ND	ND	49	1	14	10	17	0.77	0.01	2	178	10.93	18	0.01	5	0.31	0.01	0.01	3	1
	82646	1	28	1	22	0.4	596	52	565	3.24	35	N\A	ND	ND	39	1	12	2	15	0.60	0.01	2	162	9.64	13	0.01	5	0.28	0.01	0.01	1	1
	82647	1	28	1	26	0.1	690	48	489	2.86	42	N\A	ND	ND	34	1	9	2	14	0.46	0.01	2	142	9.68	18	0.01	5	0.26	0.01	0.01	2	1
	82648	1	28	8	17	0.7	657	54	552	2.98	18	N\A	ND	ND	19	1	10	2	12	0.24	0.01	2	146	7.64	10	0.01	9	0.24	0.01	0.01	2	1
	82649	1	35	1	18	0.6	610	62	542	3.38	47	N\A	ND	ND	40	1	9	2	12	0.30	0.01	2	154	9.48	12	0.01	51	0.20	0.01	0.01	2	1
	82650	1	29	2	18	0.7	610	57	497	3.19	110	N\A	ND	ND	10	1	10	3	12	0.13	0.01	1	141	9.22	10	0.01	37	0.22	0.01	0.01	1	1
	82651	1	25	4	18	0.7	839	77	576	3.12	54	N\A	ND	ND	11	1	8	2	20	0.13	0.01	2	163	8.30	9	0.01	20	0.33	0.01	0.01	3	1
	82652	1	27	1	11	0.1	725	68	512	3.11	55	N\A	ND	ND	2	1	3	2	20	0.05	0.01	1	160	7.87	8	0.01	16	0.37	0.01	0.01	1	1
	82653	1	28	2	22	0.1	1027	87	586	3.24	90	N\A	ND	ND	4	1	9	14	22	0.05	0.01	1	186	8.47	10	0.01	27	0.36	0.01	0.01	6	1
	STD-B	27	121	83	122	0.2	63	8	130	0.77	29	315	ND	ND	13	1	6	19	9	0.42	0.04	7	22	0.60	218	0.01	5	0.23	0.01	0.01	20	1

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CAVENDISH ANALYTICAL LABORATORY LTD.

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CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB
105 COPPER RD.
WHITEHORSE YUKON

PROJECT : WO# 8437
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 901005B
INVOICE # : NAL1005B
DATE ENTERED : OCT 9, 1990
FILE NAME : P1005B
PAGE # : 1

PREFIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	82654	1	27	13	26	0.1	1291	65	615	3.03	34	N/A	ND	ND	5	1	2	2	11	0.23	0.01	1	653	12.84	7	0.01	63	0.13	0.01	0.01	1	1
	82655	1	27	7	22	0.1	1196	64	405	3.28	31	N/A	ND	ND	5	1	4	2	12	0.26	0.01	1	438	13.29	3	0.01	50	0.17	0.01	0.01	1	1
	82656	1	23	7	15	0.1	674	49	624	3.18	31	N/A	ND	ND	36	1	2	2	10	0.32	0.01	1	328	10.76	3	0.01	20	0.16	0.01	0.01	1	1
	82657	1	21	13	15	0.2	683	48	795	2.90	29	N/A	ND	ND	3	1	3	2	8	0.09	0.01	1	250	9.90	4	0.01	19	0.13	0.01	0.01	1	1
	82658	1	22	13	13	0.1	567	44	689	3.07	30	N/A	ND	ND	4	1	3	2	6	0.13	0.01	1	214	10.03	3	0.01	19	0.11	0.01	0.01	1	1
	82659	1	21	13	13	0.2	395	40	499	2.94	28	N/A	ND	ND	61	1	2	2	8	0.49	0.01	1	229	9.72	3	0.01	16	0.13	0.01	0.01	1	1
	82660	1	21	13	14	0.2	436	40	544	2.78	30	N/A	ND	ND	36	1	5	2	7	0.41	0.01	1	216	9.14	4	0.01	18	0.13	0.01	0.01	1	1
	82661	1	21	12	13	0.6	434	42	395	2.65	34	N/A	ND	ND	15	1	4	2	7	0.23	0.01	1	203	8.48	4	0.01	16	0.14	0.01	0.01	1	1
	82662	1	29	15	14	0.4	741	50	614	3.00	49	N/A	ND	ND	14	1	2	2	5	0.24	0.01	1	208	9.51	5	0.01	17	0.13	0.01	0.01	1	1
	82663	1	66	16	14	0.1	1360	82	664	3.09	101	N/A	ND	ND	26	1	3	2	1	0.25	0.01	1	108	9.89	4	0.01	46	0.02	0.01	0.01	1	1
	82664	1	28	8	14	0.1	1028	58	305	2.86	88	N/A	ND	ND	10	1	5	3	1	0.11	0.01	1	118	8.10	5	0.01	21	0.01	0.01	0.01	3	1
	82665	1	27	13	17	0.1	1289	76	493	3.35	181	N/A	ND	ND	32	1	20	2	4	0.51	0.01	1	187	9.04	8	0.01	21	0.06	0.01	0.01	3	1
	82666	1	34	13	16	0.1	781	58	405	3.19	125	N/A	ND	ND	27	1	3	2	8	0.29	0.01	1	290	9.37	6	0.01	18	0.16	0.01	0.01	2	1
	82667	1	39	17	16	0.1	1192	82	909	2.96	185	N/A	ND	ND	96	2	13	2	3	1.03	0.01	1	169	10.09	9	0.01	16	0.04	0.01	0.01	3	1
	82668	1	25	15	19	0.8	1312	79	402	2.63	320	N/A	ND	ND	24	2	33	2	3	0.54	0.01	1	134	7.79	8	0.01	17	0.03	0.01	0.01	4	1
	82669	1	61	87	38	4.6	737	48	566	2.35	460	N/A	ND	ND	159	1	35	2	10	1.42	0.01	1	204	7.67	20	0.01	48	0.22	0.01	0.01	3	1
	82670	9	9	33	22	0.8	59	4	70	0.29	35	N/A	ND	ND	27	1	2	4	3	0.20	0.02	1	46	0.71	5	0.01	18	0.03	0.01	0.01	6	1
	82671	9	19	14	14	2.0	16	2	23	0.15	11	N/A	ND	ND	1	1	2	6	3	0.01	0.02	1	32	0.12	6	0.01	15	0.03	0.01	0.01	5	1
	82672	13	5	1	5	0.2	9	1	23	0.15	9	N/A	ND	ND	1	1	2	6	2	0.01	0.02	1	42	0.04	4	0.01	17	0.01	0.01	0.01	4	1
	82673	11	34	12	22	0.9	38	4	106	0.24	19	N/A	ND	ND	6	1	2	6	4	0.05	0.02	1	43	0.15	14	0.01	19	0.08	0.01	0.01	4	1
	82674	2	95	558	433	4.6	268	12	558	2.74	171	N/A	ND	ND	291	4	16	2	21	2.75	0.15	24	53	2.10	227	0.01	62	0.89	0.01	0.01	4	1
	82675	9	97	222	298	2.1	349	29	762	4.18	343	N/A	ND	ND	179	2	22	2	31	1.70	0.07	22	92	3.55	259	0.02	39	0.98	0.01	0.01	2	1
	82676	5	86	21	115	1.4	266	29	677	3.63	253	N/A	ND	ND	211	1	28	2	30	2.42	0.06	8	95	3.85	100	0.01	56	0.78	0.01	0.01	1	1
	82677	11	85	15	175	1.1	313	24	364	3.21	242	N/A	ND	ND	130	1	17	2	31	1.27	0.03	14	83	2.56	110	0.01	37	1.26	0.01	0.01	1	1
	82678	14	68	15	186	0.7	171	15	141	2.69	148	N/A	ND	ND	51	2	14	2	26	0.50	0.08	11	42	1.12	118	0.01	143	1.04	0.01	0.01	2	1
	82679	14	61	14	133	0.9	140	15	197	2.71	189	N/A	ND	ND	60	1	14	3	26	0.60	0.06	7	50	1.16	93	0.01	203	0.68	0.01	0.01	2	1
	82680	5	215	4	194	1.8	95	41	518	5.76	208	N/A	ND	ND	46	1	34	2	17	0.60	0.02	1	54	1.30	94	0.01	313	0.79	0.01	0.01	1	1
	82681	7	39	5	48	0.3	34	6	281	1.47	107	N/A	ND	ND	56	1	5	2	6	0.79	0.06	3	38	0.47	52	0.01	70	0.18	0.01	0.01	3	1
	82682	3	131	30	161	2.3	86	32	871	5.07	219	N/A	ND	ND	215	2	19	2	27	2.56	0.05	2	60	1.94	73	0.01	142	0.66	0.01	0.01	1	1
	82683	4	135	159	223	4.2	89	39	949	5.62	469	N/A	ND	ND	186	3	51	2	28	2.83	0.09	1	61	2.12	70	0.01	536	0.75	0.01	0.01	1	1
	82684	7	81	22	153	1.3	147	34	704	4.70	215	N/A	ND	ND	203	1	21	2	22	2.14	0.05	2	72	2.20	100	0.01	391	0.60	0.01	0.01	6	1
	82685	15	65	16	141	0.8	440	34	508	2.95	797	N/A	ND	ND	173	1	24	2	19	1.94	0.07	8	95	2.23	116	0.01	180	0.63	0.01	0.01	6	1
	82686	15	76	22	138	0.7	143	15	233	2.45	112	N/A	ND	ND	77	1	12	3	17	0.84	0.06	9	36	0.85	136	0.01	188	0.63	0.01	0.01	6	1
	82687	13	55	19	92	1.5	145	14	356	2.23	198	N/A	ND	ND	115	1	19	3	20	1.29	0.06	7	66	1.46	117	0.01	193	0.61	0.01	0.01	5	1
	82688	13	81	45	258	2.5	254	20	497	2.72	297	N/A	ND	ND	137	3	39	2	24	1.99	0.06	7	86	2.92	154	0.01	116	0.64	0.01	0.01	6	1
	82689	9	131	209	145	9.4	242	23	565	3.25	385	N/A	ND	ND	149	1	126	2	20	1.67	0.04	6	81	3.39	165	0.01	344	0.60	0.01	0.01	4	1
	82690	8	56	18	136	0.7	59	18	1029	4.00	102	N/A	ND	ND	184	1	9	2	21	2.07	0.19	9	42	1.57	171	0.01	89	0.33	0.01	0.01	4	1
	82691	5	202	16	78	1.3	190	18	230	3.62	116	N/A	ND	ND	56	1	13	2	26	0.41	0.23	8	36	1.04	90	0.01	164	0.67	0.01	0.01	6	1
	82692	8	59	249	105	2.6	104	6	189	0.84	63	N/A	ND	ND	41	1	10	3	13	0.32	0.03	3	68	0.79	30	0.01	20	0.45	0.01	0.01	7	1
	STD-69	4	109	95	507	4.5	4	2	62	0.75	23	N/A	ND	ND	9	3	3	4	3	0.09	0.06	6	6	0.03	169	0.01	142	0.16	0.01	0.01	15	1

CERTIFIED BY : _____

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB
105 COPPER RD.
WHITEHORSE YUKON
PROJECT : WO# 8437
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 901005B
INVOICE # : NAL1005B
DATE ENTERED : OCT 9, 1990
FILE NAME : P1005B
PAGE # : 2

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CD	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% SI	PPM W	PPM BE
	82693	4	94	126	172	4.2	71	33	575	4.85	288	N/A	ND	ND	201	2	23	2	21	2.08	0.03	1	68	1.80	45	0.01	778	0.69	0.01	0.01	3	1
	82694	8	70	20	55	0.1	51	9	245	2.02	53	N/A	ND	ND	33	1	13	4	9	0.41	0.06	8	49	0.71	22	0.01	115	0.15	0.01	0.01	2	1
	82695	13	26	8	19	0.1	40	5	125	0.39	35	N/A	ND	ND	65	1	12	5	5	0.60	0.02	1	66	0.33	16	0.01	24	0.08	0.01	0.01	4	1
	82696	1	32	18	17	0.1	802	61	748	3.03	43	N/A	ND	ND	8	1	2	2	9	0.12	0.01	1	284	8.18	7	0.01	33	0.17	0.01	0.01	1	1
	82697	12	89	77	189	2.1	215	14	365	2.97	307	N/A	ND	ND	120	3	22	2	21	1.44	0.06	8	72	1.95	139	0.01	250	0.80	0.01	0.01	2	1
	STD-B	29	134	87	141	0.9	11	2	123	0.71	29	N/A	ND	ND	15	1	2	6	9	0.51	0.04	6	45	0.24	243	0.01	35	0.24	0.01	0.01	31	1

CERTIFIED BY : _____

DUNVEGAN EXPLORATION LTD.

TOG PROPERTY
1990
DIAMOND DILL PROGRAM

ICP ANALYSIS CERTIFICATES

Appendix 5

CAVENDISH ANALYTICAL LABORATORY LTD.

2225 E. Springer Ave., Burnaby,
British Columbia, Can. V5B 3N1
Ph:(604)299-2560 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LAB
105 COPPER RD.
WHITEHORSE YUKON
PROJECT : WO# 8448
TYPE OF ANALYSIS : ICP

CERTIFICATE # : 901006D
INVOICE # : NAL1006D
DATE ENTERED : OCT 8, 1990
FILE NAME : P1006D
PAGE # : 1

PRE FIX	SAMPLE NAME	PPM MO	PPM CU	PPM PB	PPM ZN	PPM AG	PPM NI	PPM CO	PPM MN	% FE	PPM AS	PPM U	PPM AU	PPM HG	PPM SR	PPM CD	PPM SB	PPM BI	PPM V	% CA	% P	PPM LA	PPM CR	% MG	PPM BA	% TI	PPM B	% AL	% NA	% K	% SI	PPM W	PPM BE
	76301	14	76	25	218	1.1	385	24	484	3.58	500	N/A	ND	ND	155	1	47	2	16	1.02	0.05	8	91	2.84	196	0.01	166	0.50	0.01	0.01	1	1
	76302	14	73	22	186	0.4	362	26	511	3.23	384	N/A	ND	ND	212	1	27	2	14	1.65	0.07	5	76	2.53	187	0.01	211	0.49	0.01	0.01	1	1
	76303	5	55	24	55	0.1	911	58	1110	3.38	710	N/A	ND	ND	918	1	45	2	12	6.29	0.01	4	190	8.18	118	0.01	63	0.20	0.01	0.01	1	1
	76304	7	6	1	11	0.1	29	2	76	0.39	54	N/A	ND	ND	22	1	6	11	8	0.20	0.01	1	40	0.21	113	0.01	16	0.15	0.01	0.01	1	1
	76305	1	91	45	87	0.9	143	30	1002	4.81	114	N/A	ND	ND	622	1	17	2	52	4.93	0.25	47	93	3.62	529	0.10	84	1.15	0.01	0.01	1	3
	76306	10	14	75	151	0.6	145	13	363	2.07	115	N/A	ND	ND	35	1	23	15	12	0.24	0.01	8	68	1.47	68	0.01	18	0.22	0.01	0.01	3	1
	76307	6	59	149	304	1.3	214	16	463	2.18	105	N/A	ND	ND	339	2	32	6	12	2.15	0.09	23	65	1.80	86	0.01	27	0.21	0.01	0.01	3	1
	82698	11	31	21	34	0.5	45	9	277	1.45	69	N/A	ND	ND	130	1	18	11	18	1.28	0.07	12	86	1.01	173	0.02	53	0.35	0.01	0.01	1	1
	82699	13	36	100	1918	1.5	61	5	137	0.63	100	N/A	ND	ND	49	11	16	21	6	0.33	0.01	2	69	0.50	48	0.01	41	0.09	0.01	0.01	1	1
	82700	17	65	24	166	0.1	108	13	90	2.44	157	N/A	ND	ND	54	1	28	5	11	0.36	0.05	8	69	0.41	130	0.01	313	0.45	0.01	0.01	1	1
	CAVENDISH STDC	19	178	89	125	0.2	49	10	216	1.15	18	N/A	ND	ND	25	1	6	11	18	0.39	0.03	6	74	0.42	114	0.02	49	0.28	0.01	0.01	13	1
	CAVENDISH STDS	25	830	520	513	20.1	248	335	996	3.52	346	N/A	60	669	755	174	927	444	118	0.42	2.99	1136	70	0.50	261	0.14	666	1.61	0.10	0.01	316	54

CERTIFIED BY : W. Pearce

Northern Analytical Laboratories ltd.

[illegible]

Work Order # 08446

[illegible]
[illegible]
[illegible]

File # 8446a

Assay Certificate For Samples Provided

Sample	ppb Au
76301	64
76302	57
76303	32
76304	22
76305	34
76306	39
76307	3168
82698	14
82699	25
82700	115

Au -- 15g Fire Assay/AAS

Applied Science Technologists and Technicians of British Columbia
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A.Sc.T.

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[illegible]

Work Order # [illegible]

[illegible]
[illegible]
[illegible]

File # [illegible]

Assay Certificate For Samples Provided

Sample	ppb Au
[illegible]	127
[illegible]	40
76310	148
76311	51
76316	98
76317	36
76318	41
76322	24
76323	29
76324	59
76325	41
76326	90
76327	45
76328	35
76329	59
76336	275
76337	89
76338	44
76339	40
76340	97
76341	37
76342	14
76343	67
76344	94
76345	27
76346	23
76347	24
76348	34
76349	18
76350	14

Au -- 15g Fire Assay/AAS

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[illegible]

[illegible]
[illegible]
[illegible]

Work Order # [illegible]

File # [illegible]

Assay Certificate For Samples Provided

Sample	ppb Au
76376	118
76377	60
76378	67
76379	46
76380	44
76381	44
76382	32
76383	<10
76384	110

Au -- 15g Fire Assay/AAS

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September 28,1990

Work Order # 08430

Dunvegan Exploration
10 - 204 Main St.
Whitehorse, Yukon

Assay Certificate For Samples Provided

Sample	ppb Au
82601	40
82602	27
82603	30
82604	42
82605	53
82606	47
82607	34
82608	37
82609	14
82611	36
82612	39
82613	43
82614	72
82615	112
82616	51
82617	158
82618	60
82619	179
82620	141
82621	66
82622	95
82623	48
82624	187
82625	53
82626	69
82627	106
82628	288
82629	546
82630	70
82631	51
82632	45

Au -- 15g Fire Assay/AAS

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September 28,1990

Work Order # 08433

File # 08433a

Dunvegan Exploration
10 - 204 Main St.
Whitehorse, Yukon

Assay Certificate For Samples Provided

Sample	ppb Au
82633	66
82634	65
82635	47
82636	89
82642	41
82643	50
82644	47
82645	55
82646	42
82647	58
82648	29
82649	48
82650	46
82651	25
82652	36
82653	29

Au -- 15g Fire Assay/AAS

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September 28,1990

Work Order # 08433

Dunvegan Exploration
10 - 204 Main St.
Whitehorse, Yukon

File # 08433b

Assay Certificate For Samples Provided

Sample	+100 oz/t Au	-100 oz/t Au	oz/t Au
82637	<0.002	0.005	0.005
82638	<0.002	<0.002	<0.002
82639	<0.002	<0.002	<0.002
82640	<0.002	<0.002	<0.002
82641	<0.002	<0.002	<0.002

Au -- Metallics Fire Assay

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October 2,1990

Work Order # 06437

Duncan Exploration
[illegible] - 104 Main St.
Whitehorse, Yukon

File # 06437a

Assay Certificate For Samples Provided

Sample	ppb Au
82654	294
82655	<10
82656	<10
82657	14
82658	120
82659	23
82660	28
82661	21
82662	<10
82663	19
82664	14
82665	15
82666	<10
82667	<10
82668	25
82669	67
82670	120
82671	<10
82672	<10
82673	43
82674	168
82675	209
82676	64
82677	206
82678	29
82679	177
82680	139
82681	171
82682	143
82683	396

Au -- 15g Fire Assay/AAS

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Northern Analytical Laboratories ltd.

October 1, 1990

Work Order # [illegible]

Dunvegan Exploration
[illegible] 204 Main St.
Whitehorse, Yukon

File # [illegible]

Assay Certificate For Samples Provided

Sample	ppb Au
82684	188
82685	114
82686	158
82687	166
82688	817
82689	233
82690	13
82691	132
82692	396
82693	503
82694	67
82695	241
82696	52
82697	157

Au -- 15g Fire Assay/AAS

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