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GEOCHEMICAL & GEOPHYSICAL REPORT ON THE KECHIKA PROPERTY

H - CLAIM BLOCK

H91 to H94 Claims

Kechika River Area, British Columbia
Liard Mining Division

NTS 94M/4E,5E
59°15' N latitude, 127°32' W longitude

for

Tizard Explorations Inc.
(owner & operator)

November 21, 1997

E. Livgard
Livgard Consultants

R. Chow
Donegal Developments Ltd.

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SUMMARY

In 1996 an aerial magnetic survey over the northern Kechika Trough was carried out on behalf of Tizard Explorations Inc. Encouraged by the results of the survey, the company staked 1,837 claim units in eight blocks. Block H contains 4 claims with 70 claim units and is located about 70 km southeast of Watson Lake. Access is via helicopter from Watson Lake. The claims lie within the Liard Plains, where outcrop is scarce. Due to the difficult access and extensive overburden, very little exploration has been carried out in this area in the past.

The Kechika Trough is the southern extension of the Selwyn Basin and as such, is highly prospective for lead-zinc-silver sedex deposits. Numerous sedex deposits have been located in the Selwyn Basin in the Yukon and several deposits are known in the Trough. These deposits are generally found in Upper Devonian to Mississippian Earn Group carbonaceous argillites, cherty argillite and slate, and in Upper Ordovician to Middle Devonian Road River Group black shales, limestone and chert.

Other types of mineralization have also been located in the area, ex. lead, zinc, copper in quartz veins (Kitza Showing) and tungsten-copper skarns (Boya Showing). The interpretation of the 1996 aerial magnetic survey also suggests that volcanic associated mineralization may be present.

Tizard Exploration's work on the H-Block consisted of 6.0 km of grid establishment, 6.0 km of soil sampling with 122 samples, and 6.0 km of magnetometer/VLF-EM surveying.

Soil samples show a few scattered anomalies in elements including Mo, Cu, Zn, Pb, Ag, As, Sb, Hg. The geophysical survey outlined an anomalous low superimposed by small highs on the west side of the grid and a small high on line 3N,1550E. Several VLF-EM anomalies are also indicated.

DISCUSSION / CONCLUSIONS

The soil survey returned a few scattered anomalous samples with values in molybdenum, copper, zinc, lead, silver, arsenic, antimony, mercury in cadmium. The east half of the grid contains a larger number of the anomalous samples and with a greater degree of correlation among elements. The ground magnetic survey outlined a low superimposed by some small highs on the west and a small high on the east. Numerous conductors are indicated from the VLF-EM data, including two anomalies on either edge of the western magnetic high. There does not appear to be any direct association between the geophysical and geochemical anomalies. The anomalies may reflect mineralization related to the Boya West Hill skarn/porphyry showing, located just 600 m southeast of the grid. No further work is recommended on these claims at this time.

INTRODUCTION

During the period of July 6 - August 8th, 1997, a program of soil and lake sediment geochemistry, ground geophysics and minor prospecting was carried out on the Kechika Property in north central British Columbia. The property comprises 9 claim blocks, of which the H - claim block is discussed in this report. The work was conducted by Donegal Developments Ltd. on behalf of Tizard Explorations Inc.

The focus of the exploration program was to investigate anomalies delineated from an earlier reconnaissance airborne geophysical survey. The property is located within the Kechika Trough, a region which is prospective for sediment hosted zinc-lead-silver deposits.

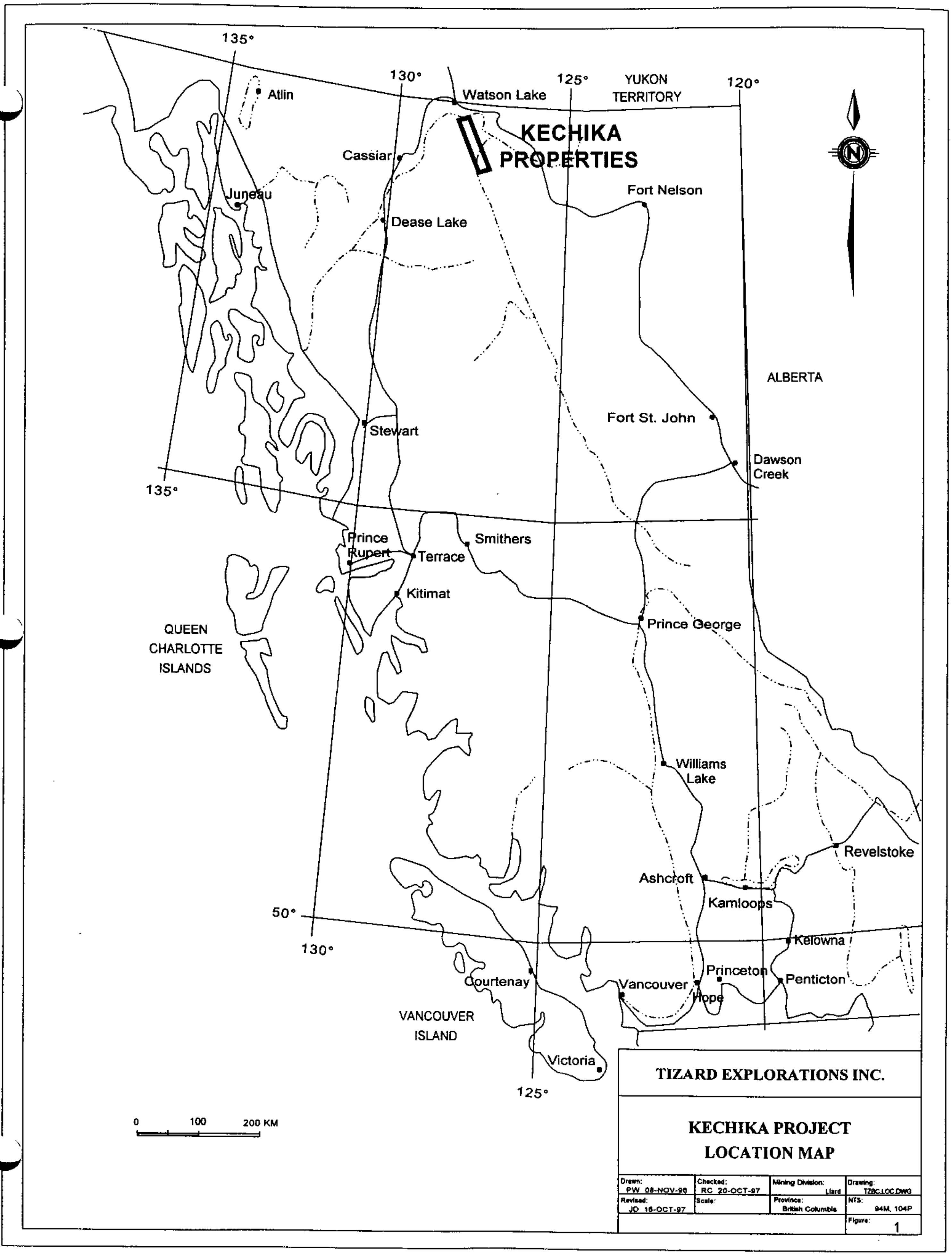
Location and Access

The Kechika H-Block is located adjacent to the east side of the Kechika River, 10 km north of the confluence of the Turnagain River and 110 km southeast of the town of Watson Lake, Yukon [Figure 1]. The centre of the property lies at 59°15' N. latitude, 127°32' W. longitude on NTS mapsheets 94M/4E,5E within the Liard Mining Division.

Access to the claims is available by helicopter out of Watson Lake. A series of trails provides good access within the claims. A fly camp was set up on the west side of Aeroplane Lake, 21 km to the northwest, during the course of the work on these claims.

Physiography and Climate

The claims are situated on the edge of the Liard Lowlands physiographic division (Liard Plains) and the adjacent Rabbit Plateau. The Liard Plains is characterized as a low lying, drift-covered region with subdued topography. The claims cover the west slope of a hill, informally referred to as Boya Hill, with elevations ranging from about 650 m (2,133 ft.) on the western edge of the claim block to 1,040 m (3,412 ft.) above sea level on the east near the peak of the hill. Glacial features on the claims indicate that ice movement was in a northeast direction.



KECHIKA
PROPERTIES
YUKON
TERRITORY
ALBERTA
Atlin
Watson Lake
Cassiar
Juneau
Dease Lake
Fort Nelson
Stewart
Fort St. John
Dawson
Creek
Prince
Rupert
Terrace
Smithers
Kitimat
QUEEN
CHARLOTTE
ISLANDS
Prince George
Williams
Lake
Revelstoke
Ashcroft
Kamloops
Kelowna
Princeton
Penticton
Vancouver
Hope
Courtenay
VANCOUVER
ISLAND
Victoria
135°
130°
125°
120°
50°
0
100
200 KM
TIZARD EXPLORATIONS INC.
KECHIKA PROJECT
LOCATION MAP
Drawn: PW 08-NOV-96
Checked: RC 20-OCT-97
Mining Division: Liard
Drawing: TZBC.LOC.DWG
Revised: JD 16-OCT-97
Scale:
Province: British Columbia
NTS: 94M, 104P
Figure: 1

The climate is typical of northern continental regions, with temperatures ranging from about -25° C in January to 15° C in July. Much of the precipitation falls as snow, with annual snowfall averaging 219 cm. Field work can be carried out from about May to October.

Claim Status

The H - Claim Block consists of 4 individual claims totaling 70 claim units, covering an area of about 1,750 hectares (4,324 acres). The owner on record of these claims is Tizard Explorations Inc. The claims are listed in Table 1 below and illustrated in Figure 2.

Table 1: H-Claim List

Claim Name	Tenure Number	Record Date	Units	Expiry Date	Claim Owner
H 91	350091	96 Aug 23	15	98 Aug 23	Tizard Explorations Inc.
H 92	350092	96 Aug 23	20	98 Aug 23	Tizard Explorations Inc.
H 93	350093	96 Aug 23	15	98 Aug 23	Tizard Explorations Inc.
H 94	350094	96 Aug 23	20	98 Aug 23	Tizard Explorations Inc.
		Total:	**70**		

Property History

The H-Block claim area, previously staked as the Boya claims, was extensively explored by Texasgulf Inc. between 1977-81 on behalf of its wholly owned subsidiary, Texas Gulf Canada Ltd. A brief chronological history of this property is as follows:

1977: The Boya claims are located with 4 MGS claims totaling 60 units. The claims are acquired as a raw tungsten prospect, with further work contemplated.

1978a: A brief geological evaluation of the claims is conducted. Geochemical surveying consisting of 110 soil samples is completed on contour and down-slope traverses. A topographic map at a scale of 1:5,000 is prepared by McElhanney Surveying and Engineering Ltd. Additional staking is completed, with the property now comprising 8 MGS claims and one fractional claim totaling 94 units.

1978b: Geological mapping is performed at 1:5,000 scale over the entire property and at 1:2,500 in a specific area of interest. A total of 335 soil samples were collected and analyzed for Cu, Zn, Mo and W with 102 of the samples subsequently analyzed for Bi. A ground magnetic survey is completed totaling 930 readings on 19.9 km of line. Late in the field season, a limited program of line-cutting is completed with 2.5 km of line.

1979: Soil sampling (61 samples) is performed to substantiate a weak geochemical anomaly detected in an earlier survey. Geophysical surveys consisting of magnetics and wide-spaced I.P. is conducted over the entire property with more detailed investigations of the North Magnetic Anomaly. Three short lines of aerial photography are flown over the property and surrounding ground with a total of 33 photos at a scale of 1:24,000. Diamond drilling in 8 holes totaling 1,419 m is completed to test surface showings and geophysical anomalies.

1980: Further diamond drilling with 8 holes totaling 2,227 m is completed on the Boya 1 & 7 claims. The core is analyzed for Mo, W, and Cu. Grades are generally very low.

1981: Two diamond drill holes are completed (1,374 m) on the Boya 1 and 2 claims to test a large volume of altered, skarned rock lying between two previously drilled areas.

1996: An airborne magnetic survey, covering a 100 km by 20 km area is flown over the northern Kechika Trough area by Questor Surveys for Donegal Developments Ltd. Eight claim blocks, including the H-Block are staked for Tizard Explorations Inc. during the summer to cover the most favourable anomalies.

Summary of Work

Work performed on the Kechika H-Block in 1997 consists of grid establishment, soil sampling and ground geophysics on the H93 and H94 claims. A total of 6.0 line km of flagged gridlines, 6.0 line km of soil sampling (122 samples), and 6.0 line km of magnetometer/VLF-EM surveying was completed.

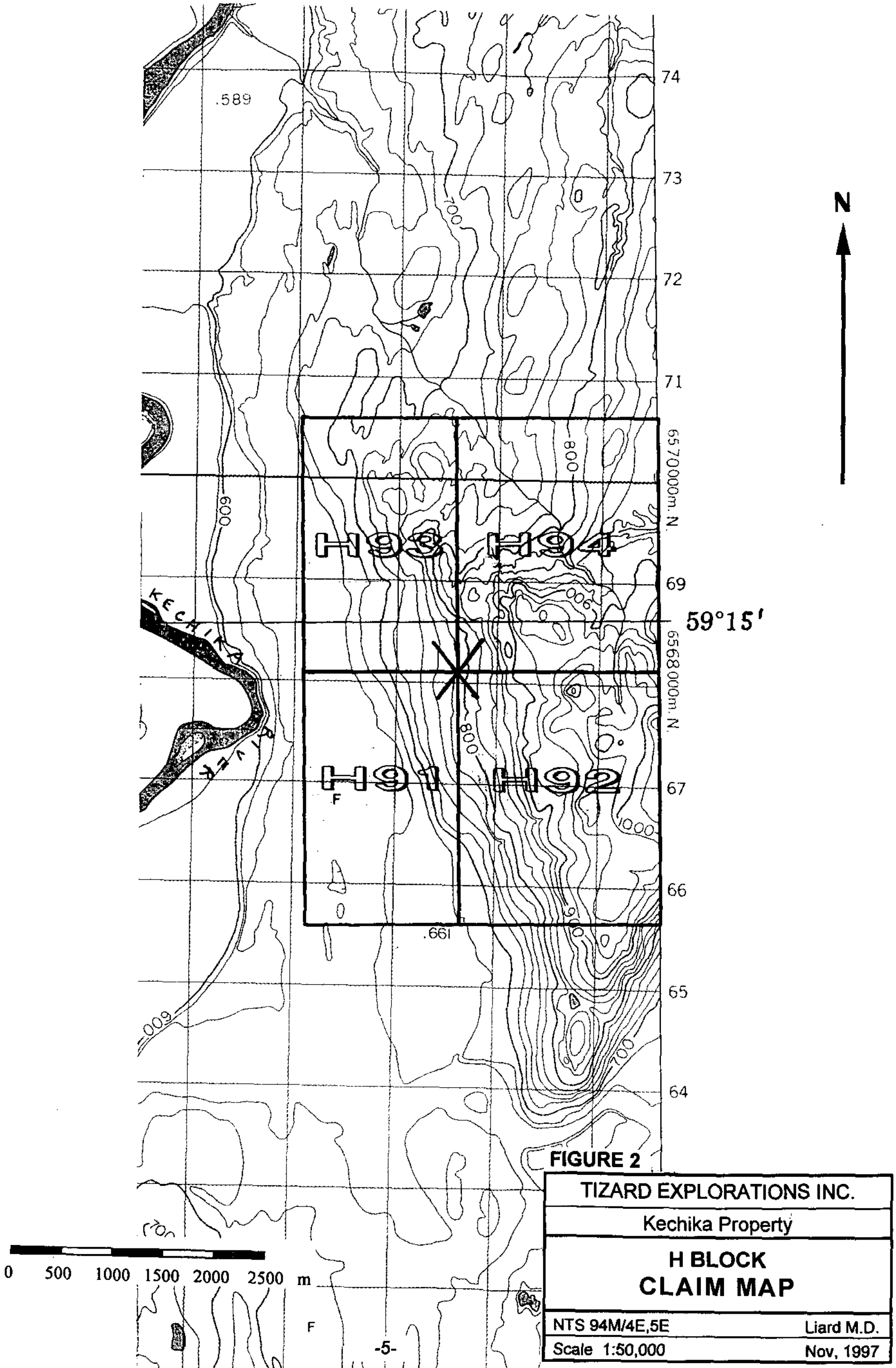


FIGURE 2

TIZARD EXPLORATIONS INC.

Kechika Property

H BLOCK
CLAIM MAP

NTS 94M/4E,5E	Liard M.D.
Scale 1:50,000	Nov, 1997

REGIONAL GEOLOGY

The area of interest lies within the Kechika Trough, a sedimentary basin developed off the western shelf of Ancestral North America during early Paleozoic time [Figure 3]. The trough is bound to the west by the Northern Rocky Mountain Trench and is considered to be the southern extension of the larger Selwyn Basin in the Yukon. Recent mapping of the Northern Kechika Trough by the B.C. Geological Survey has identified strata of predominantly Proterozoic to Mississippian age with lesser Permian to Quaternary units [Figure 4].

Stratigraphic units are summarized below from Ferri et. al. (1997):

Upper Proterozoic Hyland Group

Grey to brown weathering sandstone and slate with distinctive sequences of fine to coarse, gritty feldspathic quartz-rich sandstones and conglomerates.

(Upper Proterozoic and/or Lower Paleozoic ?) "Aeroplane Lake Panel"

Low grade metamorphic rocks in the Aeroplane Lake area, subdivided into 3 packages: a calcareous phyllite and schist, siliceous schist and quartz sandstone, and a limestone, phyllite, sandstone.

Upper Proterozoic and Cambrian

Undivided Hyland Group and Cambrian rocks.

Cambrian Siliciclastics

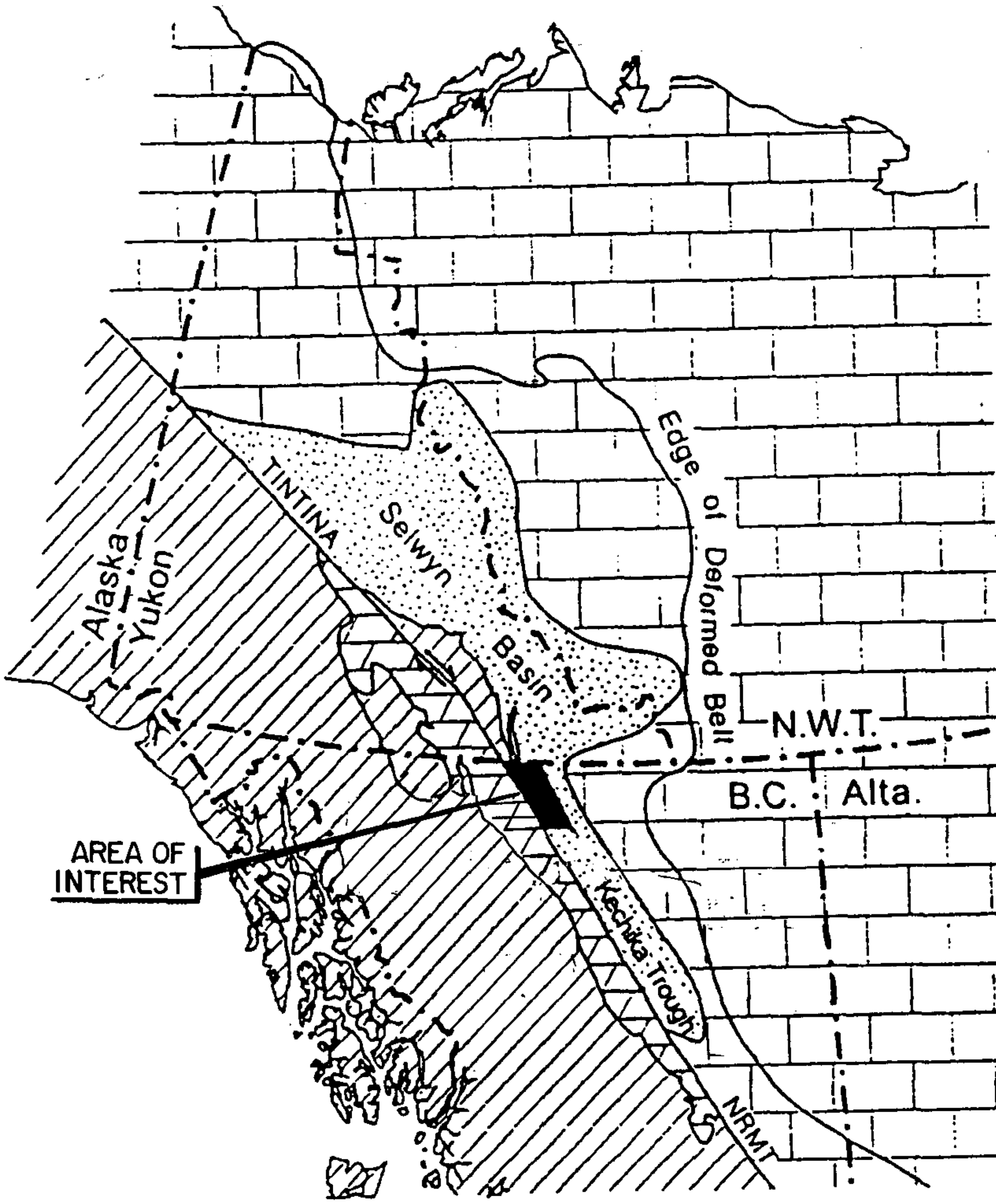
Slate, siltstone, quartz sandstone to quartzite, conglomerate and minor limestone are grouped into an unnamed sequence of probable Cambrian age.

U. Camb. - L. Ord. Kechika Group

Slate, calcareous slate, limestone, siltstone, and sandstone. This unit is extensive in the map area but poorly exposed and displays variations in thickness and lithology. In the Kechika River area, the unit is more siliceous and dolomitic.

U. Ord. - Mid. Devonian Road River Group

Divided into 2 informal subunits (although not recognizable in this map area). A lower sequence known as the Duo Lake Formation is composed of black shale, siliceous shale, chert and minor limestone. The overlying "Silurian Siltstone" is distinguished by distinctive buff-orange weathering, bioturbated dolomitic siltstone. Road River exposures are dominated by the Silurian Siltstone unit due to its relatively resistant nature.



Shelf and platform of Ancestral North America

Selwyn and Kechika basins

Displaced continental margin

Peri-cratonic and accreted terranes

N

AFTER FERRI ET. AL., 1997

TIZARD EXPLORATIONS INC.

DONEGAL DEVELOPMENTS LTD.

KECHIKA PROPERTY

TECTONIC SETTING

N.T.S. 94M, 104P — LIARD M.D., B.C.

0 200 400 600 KM.

DATE: SEPT. 1997	SCALE 1:10,000,000	FIG. 3
DRAWN BY:		

CHONG

Ordovician - Miss. "Kitza Creek Facies"

An informal unit in the Kitza Creek area consisting of calcareous dark grey to black, carbonaceous siltstone to silty argillite, shaly slate. May be older, younger than or equal to the Road River Group.

Upper Devonian to Mississippian Earn Group

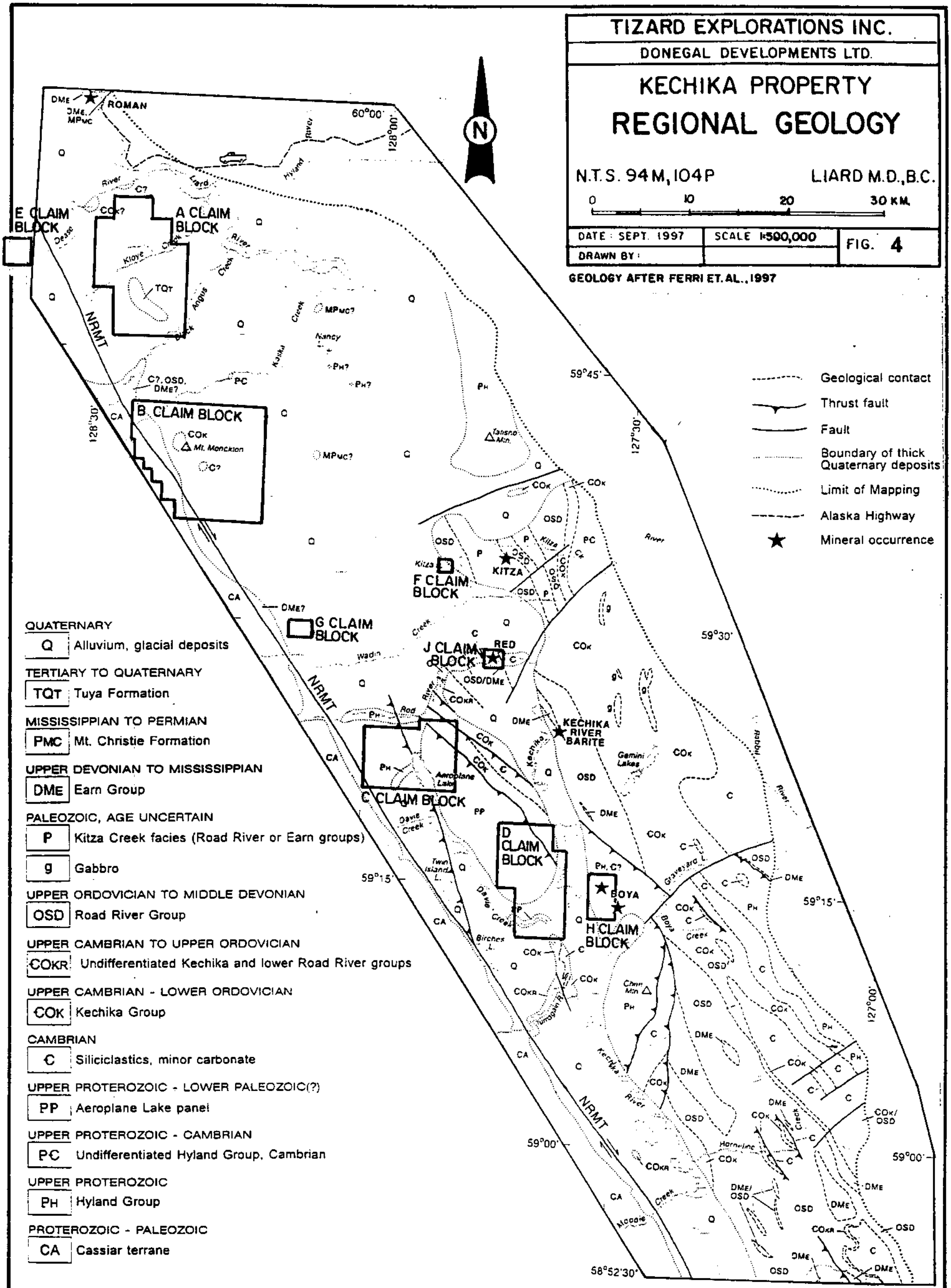
Thin to thickly bedded, carbonaceous blue-grey to dark grey or black argillite, cherty argillite, siltstone and slate. These rocks have a characteristic yellowish stain on weathered surfaces. Upper Devonian rocks of the Earn Group host many of the Cordillera's most important sedex deposits.

Miss. - Permian Mount Christie Formation (?)

Grey to buff-weathering, pale to dark grey chert. Locally pale salmon pink or green. Thinly to thickly bedded. Minor argillite. Locally found stratigraphically above Earn Group.

Tertiary - Quaternary Tuya Formation

Fresh, massive to fragmental basalt. Dark grey-brown to dark green, plagioclase-olivine-phyric. Locally vesicular or glassy. Minor basaltic tuff, with angular basalt fragments.


TIZARD EXPLORATIONS INC.
DONEGAL DEVELOPMENTS LTD.
KECHIKA PROPERTY
REGIONAL GEOLOGY
N.T.S. 94M, 104P
LIARD M.D., B.C.
0 10 20 30 KM.
DATE: SEPT. 1997
SCALE 1:500,000
DRAWN BY:
FIG. 4
GEOLOGY AFTER FERRI ET. AL., 1997
Geological contact
Thrust fault
Fault
Boundary of thick Quaternary deposits
Limit of Mapping
Alaska Highway
Mineral occurrence
QUATERNARY
Q Alluvium, glacial deposits
TERTIARY TO QUATERNARY
TQT Tuya Formation
MISSISSIPPIAN TO PERMIAN
PMC Mt. Christie Formation
UPPER DEVONIAN TO MISSISSIPPIAN
DME Earn Group
PALEOZOIC, AGE UNCERTAIN
P Kitza Creek facies (Road River or Earn groups)
g Gabbro
UPPER ORDOVICIAN TO MIDDLE DEVONIAN
OSD Road River Group
UPPER CAMBRIAN TO UPPER ORDOVICIAN
COKR Undifferentiated Kechika and lower Road River groups
UPPER CAMBRIAN - LOWER ORDOVICIAN
COK Kechika Group
CAMBRIAN
C Siliciclastics, minor carbonate
UPPER PROTEROZOIC - LOWER PALEOZOIC(?)
PP Aeroplane Lake panel
UPPER PROTEROZOIC - CAMBRIAN
PC Undifferentiated Hyland Group, Cambrian
UPPER PROTEROZOIC
PH Hyland Group
PROTEROZOIC - PALEOZOIC
CA Cassiar terrane
N
ROMAN
60°00'
128°00'
A CLAIM BLOCK
E CLAIM BLOCK
B CLAIM BLOCK
C CLAIM BLOCK
D CLAIM BLOCK
F CLAIM BLOCK
G CLAIM BLOCK
H CLAIM BLOCK
J CLAIM BLOCK
KITZA
RED
KECHIKA RIVER BARITE
BOYA
NRMT
Mt. Monckton
59°45'
59°30'
59°15'
59°00'
58°52'30'
128°30'
127°30'
127°00'

Structure

The regional structural style in the Kechika Trough is dominated by northwest trending folds and thrusts. Folding is open to moderate and upright to northeast verging. The dominant cleavage is generally parallel or subparallel to bedding. A major thrust is located on the east side of Chee Mountain, where Cambrian quartzites and slates overlie Earn Group rocks. West of Chee Mountain, the Hyland Group is separated from the Cambrian rocks by another northeast-verging thrust fault. Another significant thrust carrying Proterozoic rock passes through Aeroplane Lake in the Rocky Mountain Trench. The Northern Rocky Mountain Trench on the western boundary of the trough is a broad, well defined valley along with right-lateral fault displacement in the range of 450 - 700 km. Several steep, northeast trending dip-slip or oblique slip faults are also present in the map area.

Intrusive Rocks

In the northern Kechika Trough map area, intrusive rocks consist of mainly gabbro and smaller stocks or dikes. Several elongate gabbro bodies are found in Kechika Group rocks northeast of Gemini Lakes of possible early Paleozoic age. At Boya Hill, 10 km southeast of Graveyard Lake, skarn mineralization is related to quartz-biotite-feldspar porphyry and quartz porphyry dikes, sills and small stocks of early Cretaceous age. Several feldspar and quartz-feldspar porphyry dikes also occur within the Aeroplane Lake panel. At Mount Monckton, strongly hornfelsed rocks indicate the proximity of a large intrusive body.

REGIONAL METALLOGENY

The most economically important mineral deposits in the Kechika Trough, and the primary exploration target of this program are zinc-lead-silver sedimentary exhalative (sedex) deposits. These deposits are characterized by thin laminations to massive beds of pyrite, pyrrhotite, sphalerite and galena within host rocks of shale, chert, and carbonates. Barite is also a major component of many sedex deposits.

Some of the world's largest sedex deposits are found within the Selwyn and Purcell basins of the Canadian Cordillera, including Howard's Pass in the Yukon (125 million tonnes of 5.4% Zn and 2.1% Pb) and the Sullivan deposit in southeastern B.C. (155 million tonnes of 5.7% Zn, 6.6% Pb, 68 g/t Ag). The Selwyn Basin is host to over 20 sedex deposits, and has been estimated to contain a total tonnage potential of 900 million tonnes (Carne & Cathro, 1981). The Kechika Trough, which is the southern extension of the Selwyn Basin, hosts 12 documented sedex occurrences. Among these are the Cirque (32.2 million tonnes of 10.0% combined Zn-Pb, 48g/T Ag) Driftpile, and Akie deposits. These deposits are found in Road River Group and Lower Earn Group strata.

A secondary exploration target is poly-metallic volcanogenic massive sulphide deposits (VMS). These are syngenetic stratiform deposits of copper, zinc, lead, silver and gold occurring in marine volcanic rocks or associated marine sedimentary rocks. VMS deposits share similarities to sedex deposits as they are both formed by discharge of hydrothermal fluids onto the seafloor. The VMS deposits often contain 5 to 20 million tonnes and can attain high grades (ex. Wolverine, $270/tonne).

Mineral Occurrences in the Northern Kechika Trough Area

Kitza Showing: On Kitza Creek, about 3 km east of Kitza Lake, low grade sulphide vein mineralization occurs in "Kitza Creek facies" siltstone-limestone. Several dozen veins contain one or more of tetrahedrite, sphalerite, barite, and rare galena. An aerial electromagnetic survey consisting of over 600 line km was flown over the Kitza area in 1981. The 3 main anomalous areas were thought to be graphitic shears, but ground soil surveying and geological mapping located a large number of scattered low-grade showings. Small and patchy soil anomalies are associated with these mineral showings.

Red Showing: This showing occurs on the banks of the Red River, 5 km upstream from the junction with the Kechika River. Low grade vein mineralization occurs at 3 localities within a kilometre. A quartz breccia zone and quartz veins carry sphalerite, galena, pyrite, smithsonite and minor chalcopyrite.

Roman: The Roman zinc-lead-silver showing is hosted in Earn Group rocks just south of the Yukon-B.C. border. Several concordant to discordant sphalerite and galena bands up to 20 cm thick are hosted by graphitic slate and silty limestone. These bands can be traced for 10 metres before they disappear under the Liard River. A silicified zone at the contact contains quartz veins with patches of sulphide mineralization. The mineralization has been suggested to be part of a sedex feeder system or related to regional folding. Assays from the mineralized lenses have returned values of 22.6% Zn, 46.3% Pb and 23 g/tonne Ag. The property has been extensively explored by geological mapping, geophysical surveys and some diamond drilling. The presence of bedded barite, pyrite and stratabound lenses of sphalerite and galena suggest that the right conditions have existed to form sedex deposits in the northern Kechika Trough.

Boya: The Boya porphyry/skarn prospect is located on Boya Hill, 10 km southwest of Graveyard Lake. Low grade tungsten and chalcopyrite and molybdenum occurs at the Main Face and West Hill showing areas. At the Main Face, quartz-biotite-feldspar porphyries intrude Proterozoic host rocks forming a calc-silicate rock locally mineralized with pyrrhotite, chalcopyrite and scheelite. The most significant mineralization occurs in quartz stockworks and fracture-filling veins in the intrusion and altered metasediments which contain molybdenite and minor scheelite. At the West Hill showing, 3.5 km to the northeast, skarn mineralization consists of massive pyrrhotite with minor chalcopyrite, arsenopyrite, sphalerite, galena, bismuthinite and variable molybdenite.

Kechika River Barite: This barite-pyrite stratiform deposit occurs along a creek valley 9 km NW of Gemini Lakes and 1 km upstream from the creek's junction with the Kechika River. The barite is at least 4 m thick with local finely disseminated pyrite and is overlain by a sequence of slate with pyrite concretions, barite nodules, and finely laminated pyrite. The occurrence is hosted in Earn Group rocks.

PROPERTY GEOLOGY

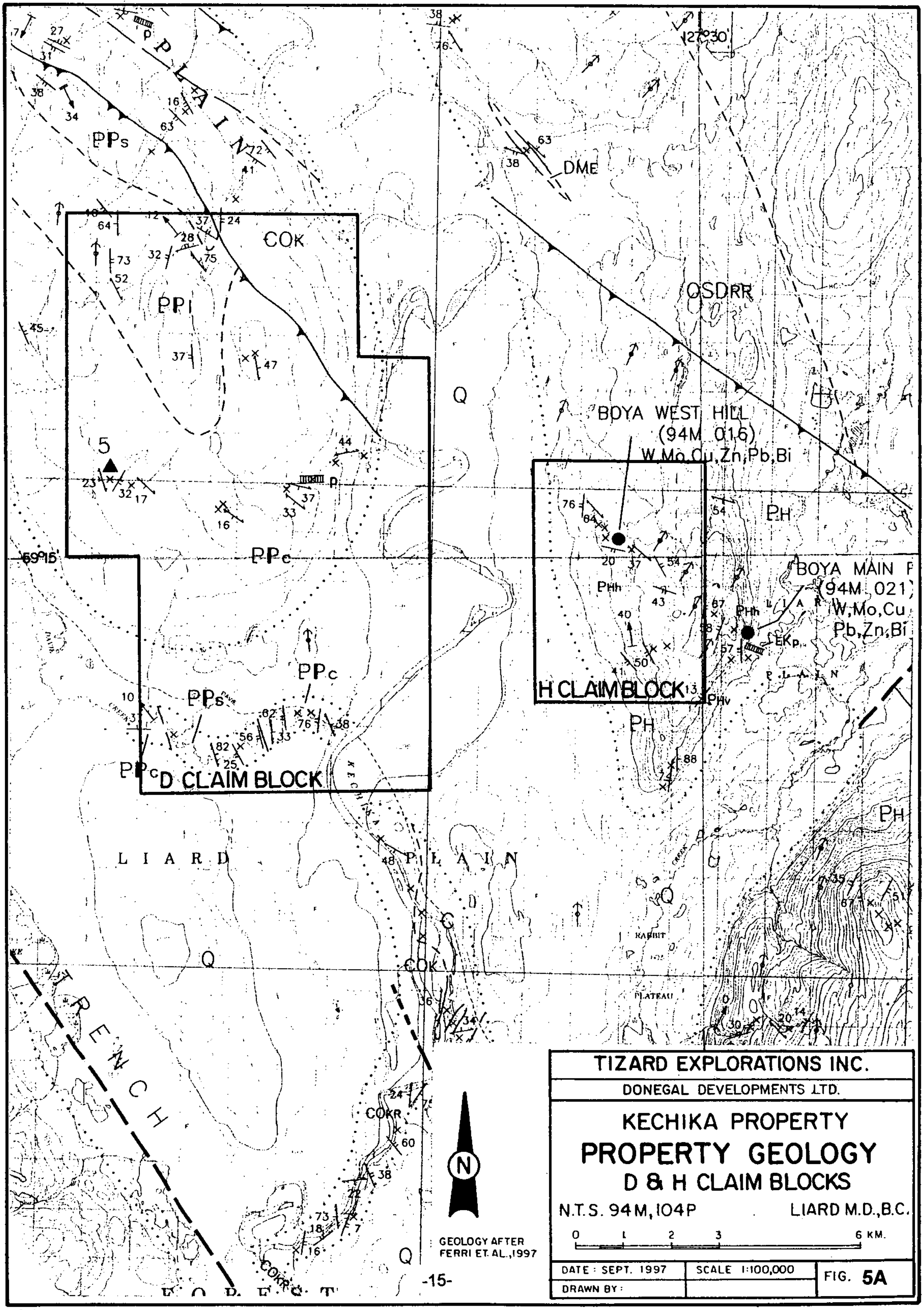
The claim area has been previously mapped by Texasgulf Inc. and more recently by the B.C. Geological Survey (Ferri et al., 1997). The property is underlain by Upper Proterozoic Hyland Group sedimentary rocks, but may include rocks of Cambrian age. Northeastward along the main part of the hill, the rocks are described as variously hornfelsed, hydrothermally altered and mineralized (unit PH_H). Outcrops of limestone or sandy limestone form prominent exposures at the top of the ridge and may be thinly interlayered with slaty siltstone or chert on the southeast slope. At the southwest end of the hill, typical grey to orange-weathering coarse sandstone to granule conglomerate is associated with several ribs of limestone and slate. The northwest facing slopes contain exposures of interlayered quartz sandstone, siltstone, slaty siltstone; chert; interlayered chert and quartz sandstone or quartzite; and recrystallized limestone.

Volcanic rocks (unit PH_V) form a mappable unit several hundred metres thick and are exposed at several localities including the southeast corner of the claims. These volcanics are typically buff to orange-brown weathering, green to brown tuff and lapilli tuff. The rocks are intensely altered with calcite and quartz.

Intrusives on the property consist of Cretaceous dikes, sills and small stocks of medium grained quartz-biotite-feldspar porphyry and quartz porphyry. These intrusives are associated with tungsten-molybdenum skarn mineralization. The quartz-biotite-feldspar porphyry is of quartz monzonite or granodiorite in composition. Thin dikes of quartz-feldspar ± biotite porphyry with a dark purplish groundmass are also present (Ferri et al., 1997).

The claims cover the Boya West Hill Showing, located on the northwest ridge of the hill. Skarn mineralization is associated with porphyritic bodies intruding limestone, slate, siltstone and quartz sandstone. The main mineralization at the West Hill and nearby Night Hawk Hill areas occurs in diopside-quartz skarn in marble or porcellanite which locally contains metre-scale lenses of massive pyrrhotite with minor chalcopyrite and traces of very fine scheelite. Quartz stockworks and veins are common in the porphyries and altered metasediments ranging from sparse to swarms of veins constituting 50% of the rock volume. Drilling by Texasgulf intersected erratic scheelite and molybdenite with assays ranging up to 0.64% MoS_2 and 0.38% WO_3. Minor amounts of arsenopyrite, sphalerite, galena and bismuthinite were also found in drill core. Widespread hydrothermal alteration is present with progressive chloritic and carbonate-sericite alteration (Minfile 94M 016).

About 1 km east of the property boundary, the Boya Main Face Showing contains similar skarn mineralization with pyrrhotite, chalcopyrite, scheelite and molybdenite. The most significant molybdenite mineralization is hosted by quartz stockworks and fracture-filling veins in the intrusions and altered metasediments. Drilling intersected low values with up to 0.2% MoS_2 and 0.55% WO_3, but overall values are considerably lower (Minfile 94M 021).



BOYA WEST HILL
(94M 016)
W,Mo,Cu,Zn,Pb,Bi
BOYA MAIN
(94M 021)
W,Mo,Cu
Pb,Zn,Bi
H CLAIM BLOCK
D CLAIM BLOCK
LIARD
PLAIN
TRENCH
COK
OSDRR
DME
Q
GEOLOGY AFTER
FERRI ET. AL.,1997
TIZARD EXPLORATIONS INC.
DONEGAL DEVELOPMENTS LTD.
KECHIKA PROPERTY
PROPERTY GEOLOGY
D & H CLAIM BLOCKS
N.T.S. 94M,104P
LIARD M.D.,B.C.
0 1 2 3 6 KM.
DATE: SEPT. 1997
SCALE 1:100,000
FIG. 5A
DRAWN BY:

CHONG

ANCESTRAL NORTH AMERICA

CENOZOIC
QUATERNARY

Q — *Glacial deposits and post-glacial alluvium.*

TERTIARY TO QUATERNARY
TUYA FORMATION

TQT — *Fresh, massive and fragmental basalt. Dark grey-brown to dark green, plagioclase-olivine-phyric. Locally vesicular or glassy. Minor basaltic tuff, with angular basalt fragments.*

PALEOZOIC
MISSISSIPPIAN TO PERMIAN
MOUNT CHRISTIE FORMATION

MPMC — *Grey to buff-weathering, pale to dark grey chert. Locally pale salmon pink or green. Thinly to thickly bedded. Minor argillite. Locally found stratigraphically above Earn Group.*

UPPER DEVONIAN TO MISSISSIPPIAN
EARN GROUP

DME — *Pale grey to blue-grey weathering, dark grey to black argillite, cherty argillite, siltstone and slate. Generally carbonaceous. Thinly to thickly bedded. Locally calcareous, ranging to black, fetid, platy to blocky argillaceous limestone (possibly related to Kitza Creek facies). Rare bedded barite: pale grey, fine to medium grained, with fine pyrite laminations, and associated with grey slate with barite and pyrite nodules.*

UPPER ORDOVICIAN TO MIDDLE DEVONIAN
ROAD RIVER GROUP

OSDRR — *Upper part: 'Silurian Siltstone': Buff-brown to orange-weathering, grey to greenish-grey siltstone, dolomitic siltstone. Commonly bioturbated, with wispy or mottled texture, or thinly laminated. Locally coarser grained, becoming fine sandstone which may be cross-laminated. Generally well and thinly to thickly bedded, with interbeds of grey slate or argillite, which predominate in some areas. Minor grey limestone; grey to grey-brown banded chert; sooty black slate or argillite; grey, fine-grained sandstone to quartzite, locally calcareous.*

Lower part: Recessive, grey to blue-grey weathering, carbonaceous, grey to black shale to slate and argillite, partly siliceous; siltstone, cherty siltstone and chert; grey to bluish-grey limestone. Thinly to moderately thickly bedded.

UPPER CAMBRIAN AND ORDOVICIAN

COKR — *Undifferentiated Kechika and lower Road River groups.*

UPPER CAMBRIAN TO LOWER ORDOVICIAN
KECHIKA GROUP

COK — *Pale grey to creamy-buff weathering, thinly and regularly interbedded grey to dark grey laminated slate, calcareous slate and fine-grained limestone, slaty or platy limestone, silty limestone. On weathering, generally soft, friable, with shiny lustre. Fine to medium-grained, thickly bedded grey limestone predominates locally.*

COKs (between Graveyard Lake and Kechika River): *Siliceous facies. Well and thinly interbedded, grey to orange-buff weathering, pinkish-grey, hard, fine to medium-grained calcareous siltstone to fine sandstone with good cross-stratified wavy laminae and micaceous partings; grey calcareous slate and silty slate; pale to mid-grey silty limestone or dolostone. Dark grey, platy micritic limestone to argillaceous limestone north of Gemini Lakes.*

CAMBRIAN

C — *Grey to rusty-brown weathering, grey micaceous slate, silty slate, siltstone; locally calcareous or dolomitic. Pale to mid-grey to maroon, thinly to thickly bedded, laminated micaceous sandstone, quartz sandstone and lesser greywacke; locally with calcareous matrix, cross-laminations, argillite clasts. Quartz-, quartzite- and chert-pebble conglomerate, with calcareous matrix tending to sandy limestone (possibly Middle Cambrian). Grey, fine to medium-grained, massive to platy limestone. Minor grey to red-brown chert, cherty argillite or siltstone.*

UPPER PROTEROZOIC AND CAMBRIAN

PC — *Undivided Hyland Group and Cambrian rocks.*

PROTEROZOIC
UPPER PROTEROZOIC
HYLAND GROUP

PH — *Grey, olive-green-grey, red-brown to maroon, laminated slate, phyllite, argillite, silty slate and siltstone. Generally associated or interbedded with buff to grey to white, thickly bedded to massive, micaceous sandstone, quartzite and granule to pebble conglomerate, locally with blue quartz and ca. 10% feldspar clasts, and minor greywacke. Grey to brown-weathering, dark grey finely crystalline, massive to platy limestone (northern and western Chee Mountain). Grey, massive, medium-grained crystalline limestone and sandy limestone, and thinly interbedded limestone and chert (Boya Hill). Pale grey to cream, fine-grained dolomitic limestone (Red River). Coarse greywacke and quartz- and chert-pebble conglomerate and breccia (Liard Plain)*

PHh: *Hornfelsed rocks, on Boya Hill.* PHv: *Orange-brown weathering, green to brown tuff and lapilli tuff with calcareous matrix, on Boya Hill.*

INFORMAL UNITS OF UNCERTAIN AGE

ORDOVICIAN TO MISSISSIPPIAN
KITZA CREEK FACIES

P — *Generally calcareous, dark grey to black, carbonaceous siltstone to silty argillite, shaly slate. Associated with buff to grey-weathering, thinly to thickly bedded dark grey to black, platy to blocky, silty to argillaceous fetid limestone. Minor, thinly bedded to massive, calcareous or non-calcareous quartz sandstone to sandy limestone, pale grey calcareous tuff, black chert. Thick sections on Kitza Creek and lower Red River of black slate and argillite with thin beds of dolomitic siltstone.*

UPPER PROTEROZOIC(?) TO LOWER PALEOZOIC
AEROPLANE LAKE PANEL
Low grade metamorphic rocks.

PPc — *Calcareous phyllite and schist. Grey, finely laminated to thinly bedded calcareous and graphitic phyllite to schist, locally crenulated. Thin interbeds of silty limestone to marble. Minor thin sandy phyllite and quartz sandstone. Grades into calcareous slate and limestone. Areas of non-calcareous phyllite. Possibly correlative with Kechika Group.*

PPs — *Siliceous schist and quartz sandstone. Grey to dark grey, crenulated slate to phyllite to schist, up to biotite grade, with layers of micaceous quartz sandstone, greywacke and siltstone. Minor dark grey, platy to massive limestone. Similar to Proterozoic or Cambrian units.*

PPl — *Limestone, phyllite and sandstone. Grey, recrystallized limestone to marble with thin layers of crenulated muscovite-chlorite schist, phyllite and greenish-grey calc-silicate. Minor dark blue-grey feldspathic sandstone to granule conglomerate. Similar to Hyland Group carbonates on Chee Mountain.*

CASSIAR TERRANE

UPPER PROTEROZOIC(?) TO PALEOZOIC

CA — *Grey, moderately to thickly bedded, quartz-feldspar sandstone, and phyllite; possibly Ingenika Group. Grey to orange-weathering, grey to green, massive to finely laminated dolomitic siltstone, cherty siltstone, siltstone and chert. Grey to buff-yellow, silty limestone to calcareous siltstone. Grey, coarse-grained calcareous or non-calcareous quartz sandstone, slate.*

INTRUSIVE ROCKS

LATE CRETACEOUS TO EARLY TERTIARY(?)

KTg — *Speckled grey, medium-grained hornblende granite, with small quartz phenocrysts.*

KTp: *Pale yellow-green, altered, quartz-plagioclase porphyry (rhyodacite?) dike.*

CRETACEOUS(?)

p — *Feldspar, feldspar-biotite, and quartz-feldspar porphyry, in or near Aeroplane Lake panel. Pink to buff-yellow feldspar and brown biotite phenocrysts in blue-grey-pink, fine-grained, weakly calcareous groundmass. Post-metamorphic; possibly Cretaceous.*

EARLY CRETACEOUS

EKp — *Dikes, sills and small stocks on Boya Hill. Speckled grey to mauve-grey, fine to medium-grained, quartz-biotite-feldspar porphyry and quartz porphyry. Generally altered. Quartz monzonite to granodiorite composition; locally aplitic.*

EARLY PALEOZOIC(?)

g — *Gabbro. Orange-brown weathering, speckled green and white, non-foliated, equigranular, medium to coarse-grained, with pyroxene, hornblende and biotite.*

SYMBOLS

Geological contact (approximate, inferred)

Thrust or reverse fault (approximate, inferred)

Fault (approximate, inferred)

Normal fault (approximate, inferred)

Strike-slip fault (approximate)

Axial surface trace (anticline, syncline)

Bedding (right way up, overturned, top unknown, vertical)

Slaty cleavage or schistosity (inclined, vertical)

Crenulation cleavage

Minor fold axis (first generation, second)

Outcrop exposure

Small intrusion (dike, sill, stock)

Ice flow indicator (direction known, unknown)

Approximate boundary of significant Quaternary deposits

Lithogeochemical sample location (number refers to tables) 4

MINFILE locality (name, number, commodities; ba, barite) RED (94M 020) Ph,Zn,Cu

Cross-section line A A'

Limit of mapped area

GEOLOGY AFTER
FERRI ET AL.,1997

TIZARD EXPLORATIONS INC.
DONEGAL DEVELOPMENTS LTD.

KECHIKA PROPERTY
LEGEND FOR PROPERTY GEOLOGY

N.T.S. 94M, 104P — LIARD M.D., B.C.

DATE : SEPT. 1997	SCALE	FIG. 5B
DRAWN BY :		

CHONG

1997 EXPLORATION PROGRAM

GRID SYSTEM

A single grid totaling 6.0 line km was established on the H Block [Figure 9] across anomalous aerial magnetic responses as advised by Mr. Ron Sheldrake, geophysicist with Questor Surveys. Minor adjustments to the position of the lines may subsequently have been made by the writers to avoid lakes, rivers or other serious obstacles. The grid were put in using compass and hip chain. Lines were spaced 200 m apart and stations marked at 50 m intervals along the lines with red flagging.

Grid HA consists of three lines extending 2,000 m at 047° across a narrow northwest trending aeromagnetic low anomaly.

GROUND GEOPHYSICAL SURVEY

Introduction

Very low frequency electromagnetic (VLF-EM) and magnetic geophysical surveys were carried over areas of the claim blocks selected on the basis of an aeromagnetic survey. The surveys were done simultaneously with two EDA OMNI PLUS instruments equipped for both VLF-EM and magnetic surveys. Diurnal variations in the geomagnetic field were recorded and removed from the magnetic results using a third EDA OMNI PLUS magnetometer operated in the base station mode. Two VLF-EM stations were utilized, namely, Seattle (Jim Creek), WA. (NLK) transmitting at 24.8 kHz and Hawaii (NPM) transmitting at 21.4 kHz. The Seattle station, located to the southeast of the project area, was the primary station providing ideal coupling with the anticipated northwest/southeast geological trends. Although not so favourably located, the Hawaii transmitter, acted as both a backup station, when the Seattle transmitter was off the air for repairs and/or scheduled maintenance, and an alternate station for more easterly trending features. Readings were taken at 25 m intervals.

Results and Discussion

The data has been plotted and interpreted by J.L. LeBel, Geophysicist. The results of the survey are posted and profiled separately on the accompanying maps [Figures 6A, 7A] at a scale of 1:5,000. For the VLF-EM survey, the in-phase and the quadrature components of the vertical magnetic field are in per cent (%) of the horizontal primary field (i.e. the tangent and ellipticity) are presented. The magnetic results show the total magnetic field in nano Teslas (nT). For VLF-EM survey the horizontal field strength is also profiled although the data is not posted due to space limitations.

As most of the grids consist of 3 lines or less, the three individual sets of results are stacked on one plan map. For the grids with more than 4 lines the results are presented on individual maps.

Valid VLF-EM anomalies, as marked on the maps, are indicated by positive to negative sense inflections or cross-overs in the in-phase component considered from west to east for east/west lines and south to north for north/south lines. Quadrature phase anomalies may have any sense. Field strength over anomalies always increases thereby provides a secondary confirmation that an anomaly is valid. Anomaly locations are not routinely provided for the Hawaii station because the results tend to be redundant.

Grid HA

The magnetic survey outlined a 100 to 150 nT low in the west on which some small highs appear to be superimposed. A small high also occurs on line 3N at 1550E. The VLF-EM survey outlines numerous anomalies as indicated on the Seattle results which are more or less replicated by the Hawaii results. Two VLF-EM anomalies near 700E on line 1N occur on either edge of a small magnetic high and the magnetic high at 3N, 1550E correlates with a poor VLF-EM anomaly.

SOIL GEOCHEMICAL SURVEY

A soil survey was conducted over the two grids, with a total of 122 samples collected. The soil horizon generally consisted of a 10-30 cm deep A-horizon and a mostly well developed B-horizon at about 5-15 cm depth. On north facing slopes, the soil horizons were less well developed. Samples were collected from the B-horizon in kraft paper bags and partially dried before shipping to Acme Analytical Labs in Vancouver. A 32-element ultratrace ICP and wet geochemical gold analysis was conducted on the samples. Barium values are not total. Refer to Figure 8A for element plots and profiles and Appendix A for complete analytical results.

Table 2: Soil Statistics Summary

ELEMENT	MIN	MAX	MEAN	MEDIAN	THRESHOLD*
Mo (ppm)	0.3	2.3	1.2	1.1	1.9
Cu (ppm)	4.7	67.6	11.6	9.3	27.9
Pb (ppm)	1.5	22.9	10.0	9.7	17.3
Zn (ppm)	8.5	190.6	59.3	54.5	111.6
Ag (ppb)	< 30	439	76	65	205
Ni (ppm)	1	40	20	20	33
Mn (ppm)	138	1750	453	323	1104
Fe (%)	0.21	4.74	2.49	2.57	3.92
As (ppm)	0.8	129.0	7.9	4.1	35.6
U (ppm)	< 5	11	3	3	5
Cd (ppm)	0.02	1.49	0.20	0.13	0.67
Sb (ppm)	0.2	1.7	0.5	0.4	1.0
Bi (ppm)	< 0.1	2.2	0.2	0.1	0.8
Ca (%)	0.12	12.66	1.32	0.28	6.25
P (%)	0.015	0.185	0.057	0.054	0.118
Ba (ppm)	113	735	235	217	427
Hg (ppb)	< 10	82	26	22	57
Se (ppm)	< 0.3	21.4	1.1	0.2	6.9
Au (ppb)	< 1	18	1	1	5

n = 122 * = mean + 2(std dev)

Results

HA Grid:

Soil values from this grid show a few scattered anomalous values in molybdenum, copper and zinc on the west side with more continuous anomalies towards the east end of the grid. In total, 5 samples are anomalous in molybdenum, 4 in copper, 6 in zinc, 4 in lead, 5 in silver, 5 in arsenic, 7 in antimony, 7 in mercury and 7 in cadmium. On line 1N, between 1300-1850E, multi-element anomalous samples are present with nine out of twelve samples anomalous in one or more of copper, molybdenum, zinc, lead, silver, antimony, bismuth, mercury and selenium. The east sides of lines 2 and 3 also contain similar anomalous elements (plus arsenic) but with a more sporadic distribution.

Respectfully submitted,

E. Livgard, B.Sc., P.Eng

R. Chow, B.Sc.

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STATEMENT OF COSTS

Wages	
Seamus Young, Supervision	
Aug. 3; 1 day @ $330/day	330
Jim Donaldson, Supervision	
Aug. 3; 1 day @ $275/day	275
Dave O'Neil, Soil Sampler	
Aug. 3; 1 day @ $220/day	220
Sam Skiber, Soil Sampler	
Aug. 3; 1 day @ $110/day	110
Graeme Zucko, Soil Sampler	
Aug. 3; 1 day @ $110/day	110
Shawn Ryan, Mag/EM Surveying	
Aug. 5; 6.0 km @ $38.5/km	231
Mary Charlie, Camp Cook	
Aug. 3; 1 day @ $220/day	220
Food & Accommodation	
Meals - 7 mandays @ $25/day	175
Camp Costs (apportioned)	635
Transportation	
Airfare - 4 round trips, Vancouver to Watson Lake (apportioned cost)	229
Vehicle rental - 2 4x4 trucks, 32 days @ $40/day (apportioned cost)	98
Gas (apportioned cost)	38
Helicopter - 3.5 hours @ $800/hr.	2,800
Analyses and Shipping	
122 soil samples @ $16.75/sample (ultratrace ICP + geochem gold)	2,044
Equipment/Supplies	
Mag/EM rental - 1 day @ $300/day	300
Base Maps (apportioned cost)	114
Report Preparation / Drafting / Reproduction	800
Total:	**$ 8,729**

CERTIFICATE

I, **EGIL LIVGARD**, of 1990 King Albert Avenue, Coquitlam, B.C., do hereby certify:

1. I am a Consulting Geological Engineer, practising from #436 - 470 Granville Street, Vancouver, B.C.

2. I am a graduate of the University of British Columbia, with a B.Sc., 1960 in Geological Sciences and have regularly updated and expanded my geological knowledge through numerous short courses given by MDRU, GAC, the Chamber of Mines, and B.C.G.S.

3. I am a registered member in good standing of the Association of Professional Engineers of the Province of British Columbia, Registration No. 7236.

4. I have practised my profession for over 30 years.

5. This report is based on the writer's property examinations during the period of July 17th - 22nd, 1997 and on references as listed.

6. I confirm that I have not, directly or indirectly, received or expect to receive any interest, direct or indirect, in the properties of Tizard Explorations Inc. or any affiliate, or beneficially own, directly or indirectly, any securities of Tizard Explorations Inc. or any affiliate.

Dated at Vancouver, British Columbia this 21st day of November, 1997.

Egil Livgard, B.Sc., P.Eng.

STATEMENT OF QUALIFICATIONS

I, Rita Chow of 5615 Dumfries Street, Vancouver, British Columbia, do hereby declare that:

1. I graduated from the University of British Columbia with a B.Sc. Degree (first class standing) in Geological Sciences in June, 1995.

2. I have been employed with Donegal Developments Ltd. since June of 1995.

3. This report is based on work done on the property during the period of July 6th to Aug. 8th, 1997 and on references as listed.

4. I have no interest, direct or indirect, in the Kechika Property or in the securities of Tizard Explorations Inc. nor do I expect to receive any.

R. Chow

Rita Chow, B.Sc.
November 21, 1997

STATEMENT OF QUALIFICATIONS

I, J. L. LeBel, of 2684 Violet Street, North Vancouver, British Columbia hereby certify:

1. I am a graduate of the Queens University and the University of Manitoba and I hold a BSc. degree in geological engineering and a MSc. degree in geophysics.

2. I am a Professional Engineer registered with the Association of Professional Engineers and Geoscientists of British Columbia.

3. I have been employed in mining exploration on a full time basis as geophysicist with various companies since graduation in 1972.

J.L. LeBel, P.Eng.

DATED at Vancouver, British Columbia, this 10th day of October, 1997.

APPENDIX A

Certificates of Analyses

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
HA1N 1300E	1.6	12.5	19.1	120.6	149	29	10	604	3.25	12.9	<5	4	29	.29	.6	.4	48	.42	.081	18	30	.45	346	.09	<3	1.84	.02	.11	2	.2	34	.3	<.2	7.3	<1
HA1N 1350E	1.3	35.2	13.2	55.6	439	25	7	280	1.96	13.5	<5	3	129	.42	1.1	.3	27	7.43	.086	19	17	.62	241	.02	<3	.88	.01	.16	<2	<.2	68	.6	<.2	2.5	1
HA1N 1400E	1.3	22.1	17.0	190.6	137	20	10	1643	2.25	3.4	<5	3	39	1.28	.6	.2	35	.59	.185	17	18	.37	735	.01	3	1.26	.01	.10	<2	<.2	33	.4	<.2	3.5	1
HA1N 1450E	1.4	15.5	12.8	70.0	47	28	9	188	2.74	5.7	<5	7	18	.13	.7	.2	42	.22	.050	20	30	.43	179	.05	<3	1.36	.01	.08	<2	.2	20	<.3	<.2	4.3	<1
HA1N 1500E	1.3	6.3	1.9	54.0	64	1	3	1231	.63	1.2	<5	<2	276	.56	.3	<.1	4	6.34	.081	2	3	.50	166	<.01	18	.17	.01	.04	<2	<.2	67	8.5	<.2	1.1	<1
HA1N 1550E	1.2	9.6	2.3	51.2	56	5	3	515	1.06	1.5	<5	<2	287	.55	.2	<.1	6	8.00	.128	3	4	.43	135	.01	16	.23	.01	.05	<2	<.2	53	14.1	<.2	1.4	1
HA1N 1600E	2.2	11.5	2.2	36.1	63	6	4	667	.65	1.0	<5	<2	234	.48	.5	.1	5	8.82	.083	3	3	.40	149	<.01	15	.22	.01	.03	<2	<.2	53	3.4	<.2	1.1	<1
HA1N 1650E	1.3	13.4	9.5	50.1	139	13	6	854	1.78	11.7	<5	<2	166	.49	.6	.5	17	5.88	.079	10	12	.64	191	.02	4	.67	.01	.06	<2	<.2	37	5.1	<.2	2.2	1
HA1N 1700E	.9	25.5	12.0	73.8	192	16	5	380	1.70	9.5	<5	<2	173	.67	1.0	.8	21	6.63	.092	13	15	.67	226	.02	6	.90	.01	.08	<2	<.2	34	3.2	<.2	2.6	3
HA1N 1750E	.8	8.1	2.2	11.4	46	<1	2	924	.34	1.1	<5	<2	241	.65	.3	.1	4	8.64	.068	3	3	.31	249	<.01	8	.19	.01	.02	<2	<.2	48	2.1	<.2	.9	<1
HA1N 1800E	1.7	15.0	7.8	32.8	123	11	6	1703	1.27	8.1	<5	2	266	.62	.9	.2	15	6.43	.076	7	9	.47	402	.01	5	.72	.01	.04	<2	<.2	61	4.9	<.2	2.3	1
HA1N 1850E	2.2	8.9	2.0	20.0	65	2	2	465	.33	1.1	<5	<2	220	.41	.6	<.1	5	7.03	.091	3	3	.42	233	<.01	28	.16	.01	.07	<2	<.2	59	3.2	<.2	.7	<1
HA1N 1900E	1.1	10.7	11.1	44.6	89	19	8	252	2.51	3.8	<5	4	33	.05	.4	.1	41	.38	.023	20	24	.48	151	.08	<3	1.27	.02	.08	<2	.2	11	.9	<.2	4.6	<1
HA1N 1950E	1.8	8.5	9.2	46.2	48	21	8	189	2.53	3.4	<5	5	22	.04	.5	.1	43	.27	.026	20	28	.43	163	.06	<3	1.43	.01	.07	<2	.2	16	.6	<.2	4.2	1
HA1N 2000E	1.9	6.7	9.9	51.3	48	15	7	445	2.29	1.8	<5	3	25	.13	.3	.1	46	.39	.040	18	25	.37	249	.05	<3	1.36	.01	.07	2	<.2	16	.5	<.2	4.4	<1

ACME ANALYTICAL

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Se	Te	Ga	Au+
	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppb	ppm	ppm	ppm	ppb
HA2N 1650E	1.0	11.4	10.3	76.5	<30	30	10	241	3.41	3.8	<5	3	20	.17	.3	.1	54	.22	.065	14	34	.40	285	.10	<3	2.01	.02	.09	2	<.2	29	<.3	<.2	8.0	<1
HA2N 1700E	1.0	13.7	7.6	33.3	33	12	5	322	1.24	6.9	<5	<2	163	.31	.5	.1	16	5.62	.079	11	9	.71	118	.01	<3	.39	.01	.04	<2	<.2	26	.3	<.2	1.8	<1
HA2N 1750E	.7	5.0	1.5	8.5	<30	<1	2	1045	.21	<.5	<5	<2	274	.33	.2	<.1	2	5.37	.065	1	2	.57	219	<.01	9	.13	.01	.02	<2	<.2	47	1.6	<.2	1.2	2
HA2N 1850E	1.1	16.4	7.2	61.9	110	15	6	1032	2.85	42.2	<5	<2	256	.91	.4	.2	15	5.92	.109	6	9	.51	340	.01	11	.52	.01	.05	<2	<.2	57	5.2	<.2	2.7	1
HA2N 1900E	1.6	28.5	18.4	49.1	213	27	9	233	2.70	42.7	<5	4	52	.21	1.2	.8	33	1.88	.053	22	18	.41	217	.01	<3	1.12	.01	.10	<2	<.2	82	.5	<.2	3.9	3
HA2N 1950E	1.7	24.8	18.8	58.9	133	27	10	300	2.93	31.3	<5	5	20	.15	1.1	.8	34	.26	.067	25	21	.36	186	.02	<3	1.15	.01	.12	2	<.2	43	.3	<.2	3.9	1
HA2N 2000E	1.2	10.5	10.5	56.5	57	17	8	474	2.47	6.4	<5	3	22	.14	.5	.3	39	.26	.060	15	22	.32	207	.05	<3	1.14	.01	.08	2	<.2	29	<.3	<.2	4.6	<1
HA1N 0E	.3	18.4	9.2	45.6	140	9	3	574	.69	.9	<5	3	632	1.03	.5	.1	12	12.66	.073	4	8	.74	314	.01	10	.48	.01	.05	<2	<.2	27	21.4	<.2	2.5	<1
HA1N 50E	1.7	13.9	16.8	43.2	84	20	8	282	2.41	7.6	<5	3	64	.13	.7	.2	33	1.58	.051	25	18	.45	158	.01	3	.93	.01	.11	<2	<.2	47	3.4	<.2	3.3	3
HA1N 100E	1.2	9.3	9.2	37.7	40	15	7	281	2.32	3.4	<5	3	22	.07	.4	.2	44	.23	.016	13	26	.39	209	.05	<3	1.11	.01	.05	<2	<.2	14	.4	<.2	4.1	1
HA1N 150E	1.7	11.6	15.5	48.3	73	17	8	567	2.42	6.6	<5	3	26	.13	.7	.2	31	.41	.024	18	17	.31	275	.01	3	.97	<.01	.11	<2	<.2	35	.8	<.2	3.2	1
HA1N 200E	1.3	10.6	10.0	44.1	<30	20	8	226	2.52	4.4	<5	5	17	.04	.5	.1	38	.18	.032	14	25	.38	151	.07	<3	1.11	.01	.11	<2	<.2	28	.3	<.2	4.2	1
HA1N 250E	1.7	20.4	16.7	46.1	67	26	9	315	2.78	11.8	5	4	33	.09	.8	.1	36	.71	.050	28	21	.35	295	.01	<3	1.12	.01	.13	<2	<.2	52	.9	<.2	3.8	1
HA1N 300E	1.2	8.8	9.1	34.0	<30	11	6	235	1.75	3.7	<5	3	14	.04	.4	.1	28	.14	.028	16	16	.22	177	.02	<3	.76	<.01	.05	<2	<.2	25	.3	<.2	3.2	<1
HA1N 350E	1.1	9.3	7.9	44.3	30	19	7	211	2.53	2.6	<5	3	20	.05	.4	<.1	45	.20	.015	12	27	.40	159	.08	<3	1.19	.01	.06	<2	<.2	31	.3	<.2	5.2	1
HA1N 400E	1.2	7.6	8.9	36.4	<30	14	6	196	2.28	4.1	<5	3	15	.05	.4	.1	38	.16	.022	12	20	.28	140	.05	<3	.98	.01	.06	<2	<.2	23	<.3	<.2	4.1	1
HA1N 450E	.8	6.3	8.8	58.3	<30	19	8	461	2.36	1.9	<5	3	17	.08	.2	.1	41	.20	.050	11	23	.36	236	.05	<3	1.19	.01	.07	<2	<.2	13	<.3	<.2	4.5	1
HA1N 500E	1.4	10.5	13.9	81.2	96	25	9	631	3.11	4.3	<5	3	30	.27	.5	.1	51	.35	.056	13	30	.40	287	.12	<3	1.56	.01	.15	<2	<.2	25	.4	<.2	7.4	1
HA1N 550E	2.3	67.6	12.3	110.4	107	40	18	460	4.07	9.9	<5	2	45	.47	.5	1.8	69	.78	.042	11	31	1.72	181	.07	<3	2.83	.02	.22	<2	<.2	11	3.0	<.2	8.6	6
HA1N 600E	1.8	42.2	15.3	169.5	<30	29	11	322	3.17	12.0	<5	7	51	.46	.7	2.2	50	.44	.018	19	34	1.08	321	.07	<3	2.45	.04	.12	<2	<.2	15	2.0	<.2	8.4	1
RE HA1N 600E	1.3	40.6	12.1	167.4	<30	28	11	314	3.09	9.4	<5	6	50	.36	.5	1.8	48	.42	.019	18	32	1.05	318	.07	<3	2.39	.04	.12	<2	<.2	<10	1.7	<.2	6.9	1
HA1N 650E	1.0	13.0	7.4	50.2	56	26	9	250	2.86	4.7	<5	3	26	.11	.4	.1	52	.32	.030	10	35	.49	149	.11	<3	1.49	.01	.09	<2	<.2	10	1.0	<.2	5.2	2
HA1N 700E	.8	10.5	9.4	69.2	47	25	10	506	2.89	5.3	<5	4	25	.11	.4	.1	51	.31	.065	13	29	.47	262	.08	<3	1.51	.01	.08	<2	<.2	22	.5	<.2	5.4	<1
HA1N 750E	1.2	10.5	11.6	67.3	41	21	8	217	2.92	13.8	<5	<2	19	.12	.5	.3	48	.24	.049	14	25	.39	113	.05	<3	1.27	.01	.08	<2	<.2	10	<.3	<.2	5.4	1
HA1N 800E	1.6	8.3	11.1	43.9	73	20	7	248	2.79	11.9	<5	2	20	.12	.4	.2	41	.26	.030	13	22	.34	164	.05	<3	1.34	.01	.07	<2	<.2	<10	<.3	<.2	6.0	1
HA1N 850E	1.1	12.4	8.9	48.3	38	20	8	211	2.66	16.7	<5	4	22	.09	.5	.3	42	.24	.062	15	24	.43	160	.06	3	1.16	.01	.11	<2	<.2	<10	.3	<.2	4.3	3
HA1N 900E	1.4	12.7	10.8	60.3	43	18	9	267	2.57	14.7	<5	3	19	.19	.7	.2	39	.23	.070	17	22	.29	161	.03	<3	.98	.01	.07	<2	<.2	<10	.6	<.2	3.4	2
HA1N 950E	.9	6.5	7.6	46.7	64	12	6	245	1.90	3.9	<5	<2	17	.07	.3	.1	33	.24	.043	13	19	.30	159	.04	3	.96	.01	.05	<2	<.2	20	<.3	<.2	3.8	<1
HA1N 1000E	.9	10.7	7.6	40.8	38	18	8	270	2.29	3.2	<5	4	21	.02	.3	<.1	37	.27	.045	11	22	.43	118	.05	<3	1.05	.01	.05	<2	<.2	16	.3	<.2	3.8	1
HA1N 1050E	1.0	9.5	6.8	48.0	<30	18	8	229	2.41	4.7	<5	4	16	.04	.4	<.1	40	.20	.043	16	25	.40	151	.04	<3	1.19	.01	.05	<2	<.2	19	<.3	<.2	3.9	1
HA1N 1100E	1.2	18.2	12.6	56.1	86	25	9	283	2.81	9.1	<5	5	22	.09	.7	.1	39	.34	.082	25	23	.39	248	.03	<3	1.30	.01	.09	<2	<.2	33	.5	<.2	4.4	1
HA1N 1150E	1.1	7.0	6.1	37.1	<30	15	6	169	2.29	3.9	<5	2	18	.04	.3	<.1	43	.21	.021	12	23	.34	146	.05	<3	.97	.01	.05	<2	<.2	<10	<.3	<.2	3.8	1
HA1N 1200E	.9	7.4	7.7	54.9	47	18	7	276	2.54	6.7	<5	3	16	.08	.4	.1	43	.19	.033	13	24	.34	201	.06	<3	1.19	.01	.05	<2	<.2	<10	<.3	<.2	4.6	<1
HA1N 1250E	1.5	10.2	13.2	85.3	108	19	8	548	2.66	16.2	<5	3	19	.29	.6	.3	37	.21	.041	15	21	.36	261	.04	<3	1.16	.01	.08	<2	<.2	22	.3	<.2	5.3	<1
STANDARD D2/	24.8	126.3	105.6	268.5	2015	31	17	1064	4.31	72.3	23	17	63	2.14	8.3	22.3	75	.71	.107	17	55	1.10	254	.14	25	2.34	.05	.70	20	2.4	472	.6	2.0	7.8	46

Standard is STANDARD D2/HG-500/AU-S. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data ___ FA ____

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
HA2N 0E	1.5	11.9	9.5	43.7	75	16	6	323	2.48	6.7	<5	4	21	.08	1.7	.1	34	.25	.083	17	18	.31	205	.01	3	.89	.01	.08	<2	.3	38	.4	<.2	3.5	2
HA2N 50E	1.2	5.9	13.2	55.9	86	20	8	489	2.74	3.2	<5	3	23	.16	.5	.2	44	.29	.062	15	24	.39	223	.05	3	1.32	.01	.09	<2	<.2	27	<.3	<.2	5.5	<1
HA2N 100E	1.0	4.9	9.7	69.4	85	18	8	641	2.61	2.2	<5	4	24	.17	.4	.2	44	.30	.096	15	26	.37	263	.06	4	1.25	.01	.08	<2	<.2	30	<.3	<.2	4.2	<1
HA2N 150E	1.1	5.8	13.0	73.4	83	22	9	911	3.02	2.2	<5	4	22	.17	.4	.1	49	.26	.080	15	29	.40	399	.07	<3	1.54	.01	.11	<2	<.2	30	<.3	<.2	5.7	<1
HA2N 200E	1.3	7.6	9.6	46.7	43	24	9	302	3.02	4.2	<5	3	24	.07	.5	.1	55	.28	.027	14	34	.49	216	.09	<3	1.54	.01	.08	<2	<.2	20	<.3	<.2	4.8	<1
HA2N 250E	1.2	5.8	11.6	55.1	70	22	9	602	2.85	2.5	<5	4	21	.12	.4	.1	50	.24	.035	16	29	.40	340	.05	<3	1.52	.01	.08	<2	.2	37	<.3	<.2	5.0	<1
HA2N 300E	1.2	5.5	7.9	36.4	<30	18	6	158	2.64	3.6	<5	4	20	.03	.4	.1	50	.24	.025	14	28	.40	162	.06	<3	1.28	.01	.06	<2	<.2	24	<.3	<.2	3.9	<1
HA2N 350E	1.2	7.0	11.7	63.0	87	17	8	702	2.54	2.5	<5	<2	31	.26	.4	.1	42	.47	.119	15	24	.33	428	.04	<3	1.27	.01	.09	<2	<.2	17	<.3	<.2	4.6	1
HA2N 400E	1.4	9.2	10.7	78.9	73	26	9	298	3.07	2.7	<5	4	22	.20	.5	.2	55	.29	.029	11	35	.49	249	.10	<3	1.63	.01	.08	<2	<.2	31	<.3	<.2	5.8	<1
HA2N 450E	1.2	7.6	11.7	98.4	91	32	10	359	3.71	4.3	<5	2	23	.21	.5	.2	63	.28	.086	13	36	.51	295	.11	<3	2.04	.01	.07	<2	<.2	23	<.3	<.2	7.4	<1
HA2N 500E	1.3	7.7	11.8	55.8	75	15	7	414	2.30	3.5	<5	3	17	.19	.5	.1	37	.23	.065	12	21	.35	230	.04	<3	.99	.01	.06	<2	<.2	10	<.3	<.2	3.9	2
HA2N 550E	1.1	8.3	14.9	102.1	80	23	10	804	2.98	3.8	<5	4	35	.25	.6	.6	45	.47	.098	15	26	.74	431	.07	3	1.74	.02	.17	<2	<.2	18	<.3	<.2	5.0	1
HA2N 600E	1.2	6.3	12.1	56.9	93	26	9	455	3.04	4.0	<5	2	24	.14	.4	.4	60	.38	.022	12	29	.63	216	.09	<3	1.72	.01	.13	<2	<.2	22	<.3	<.2	6.2	<1
HA2N 650E	1.3	7.5	14.3	64.6	88	24	11	637	3.14	3.6	<5	3	22	.16	.5	.2	51	.30	.072	13	29	.44	243	.09	<3	1.60	.01	.09	<2	<.2	33	<.3	<.2	6.4	<1
HA2N 700E	.9	5.2	8.3	50.3	39	16	7	272	2.46	1.6	<5	2	16	.05	.3	.1	48	.21	.055	11	26	.47	168	.05	<3	1.23	.01	.05	<2	<.2	20	<.3	<.2	4.2	2
HA2N 750E	1.0	10.5	16.5	68.1	129	25	9	577	3.16	6.3	<5	4	27	.14	.6	.1	47	.39	.116	25	26	.38	439	.03	3	1.50	.01	.12	<2	<.2	20	<.3	<.2	4.5	<1
HA2N 800E	.9	6.6	11.1	89.5	69	22	11	980	2.91	2.8	<5	3	21	.19	.3	.1	52	.29	.061	15	29	.50	320	.07	<3	1.61	.01	.06	<2	<.2	26	<.3	<.2	5.1	1
HA2N 850E	1.0	10.3	11.3	58.0	42	24	9	273	2.74	4.6	<5	5	19	.07	.6	.1	42	.32	.085	17	28	.43	195	.05	<3	1.21	.01	.09	<2	<.2	14	<.3	<.2	3.6	1
HA2N 900E	.9	6.6	10.6	57.2	104	20	8	683	2.52	3.8	<5	4	22	.16	.3	.1	41	.33	.047	17	24	.45	244	.06	<3	1.28	.01	.09	<2	<.2	21	<.3	<.2	4.2	1
HA2N 950E	1.0	8.1	8.8	50.1	34	21	8	285	2.72	3.1	7	3	21	.06	.3	.1	49	.30	.029	11	30	.54	182	.07	<3	1.46	.01	.06	<2	<.2	23	<.3	<.2	4.4	1
RE HA2N 950E	.8	7.9	8.1	47.4	30	20	8	266	2.58	2.4	<5	2	21	.05	.3	.1	46	.28	.029	11	28	.52	172	.07	<3	1.41	.01	.05	<2	<.2	14	<.3	<.2	4.1	4
HA2N 1000E	1.1	8.0	9.5	48.2	87	23	9	272	2.77	4.7	<5	3	23	.07	.5	.1	49	.39	.067	16	30	.45	183	.06	3	1.57	.01	.07	<2	<.2	20	<.3	<.2	4.7	<1
HA2N 1050E	1.5	19.8	13.8	54.2	104	29	10	377	2.86	9.3	<5	7	21	.06	1.0	.2	41	.31	.097	31	27	.44	167	.03	<3	1.17	.01	.14	<2	<.2	30	.4	<.2	3.2	<1
HA2N 1100E	1.3	6.4	8.8	42.5	<30	13	6	267	2.15	5.2	<5	4	16	.07	.5	.1	37	.19	.018	17	18	.31	172	.03	<3	1.04	.01	.07	<2	<.2	22	<.3	<.2	3.5	<1
HA2N 1150E	1.2	6.3	9.9	54.7	52	21	7	295	2.93	4.7	6	4	20	.09	.5	.1	53	.24	.022	18	29	.42	250	.06	<3	1.42	.01	.06	<2	.2	29	<.3	<.2	4.7	1
HA2N 1200E	1.2	12.8	13.2	54.5	59	20	8	325	2.84	38.3	<5	5	14	.12	1.1	.3	33	.16	.032	20	18	.35	185	.02	3	1.06	.01	.13	<2	<.2	17	.5	<.2	2.6	1
HA2N 1250E	1.7	17.8	22.9	79.7	50	23	9	383	3.05	39.1	<5	6	18	.14	1.2	.4	37	.22	.046	24	20	.41	239	.02	3	1.23	.01	.11	<2	.2	36	.5	<.2	3.1	<1
HA2N 1300E	1.2	8.8	10.8	57.1	76	22	8	350	2.84	5.8	<5	4	21	.11	.6	.2	49	.27	.067	16	28	.41	248	.06	<3	1.57	.01	.06	<2	<.2	29	<.3	<.2	5.6	<1
HA2N 1350E	1.1	6.4	9.7	65.5	50	20	9	338	2.86	3.0	<5	4	17	.13	.4	.1	52	.22	.036	14	28	.45	275	.07	<3	1.56	.01	.07	<2	<.2	29	<.3	<.2	5.1	1
HA2N 1400E	.9	11.5	11.1	119.7	193	36	10	290	3.49	5.4	<5	4	29	.33	.4	.2	54	.40	.067	18	34	.58	277	.10	<3	1.87	.02	.07	<2	<.2	50	.4	<.2	6.8	<1
HA2N 1450E	1.0	19.0	10.9	74.8	97	25	8	299	2.47	9.1	<5	3	30	.21	.6	.2	37	.49	.061	17	24	.53	245	.04	<3	1.35	.01	.08	<2	<.2	31	.3	<.2	3.7	<1
HA2N 1500E	1.1	12.0	8.2	72.8	109	35	10	342	3.45	4.1	<5	4	29	.08	.4	.1	54	.39	.072	17	35	.59	241	.13	<3	2.11	.02	.05	<2	<.2	35	.4	<.2	6.6	<1
HA2N 1550E	1.3	26.7	12.0	54.5	246	21	7	257	1.98	32.6	<5	4	121	.35	1.2	.4	28	5.00	.066	15	16	.68	195	.01	3	.89	.02	.09	<2	<.2	65	1.0	<.2	2.5	2
HA2N 1600E	1.1	4.9	11.0	51.3	30	21	7	153	3.09	3.7	<5	3	17	.09	.4	.3	52	.25	.044	13	28	.34	208	.07	<3	1.44	.01	.06	<2	<.2	42	<.3	<.2	5.8	<1
STANDARD D2/	26.3	132.2	104.9	284.8	2126	33	18	1060	4.57	76.9	19	19	60	2.15	8.2	23.0	79	.74	.108	17	59	1.21	271	.15	26	2.50	.06	.74	20	2.8	460	.3	2.1	7.7	46

Standard is STANDARD D2/HG-500/AU-S. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
HA3N 400E	1.1	5.8	10.1	95.7	33	24	9	447	2.92	2.6	<5	2	16	.17	.2	<.1	50	.21	.109	14	30	.39	199	.07	3	1.56	.01	.08	<2	.2	24	<.3	<.2	6.0	1
HA3N 450E	.6	7.6	6.5	45.9	<30	18	8	292	2.35	2.7	<5	2	22	.07	.3	<.1	42	.28	.033	11	26	.45	141	.07	<3	1.11	.01	.10	<2	.2	<10	<.3	<.2	3.8	<1
HA3N 500E	1.0	7.2	6.5	40.1	62	18	7	279	2.37	3.0	<5	2	21	.03	.3	.1	45	.24	.020	10	28	.49	150	.07	<3	1.18	.01	.06	<2	<.2	14	<.3	<.2	4.0	<1
HA3N 550E	.8	7.5	7.9	50.2	51	20	8	266	2.57	4.1	<5	3	22	.08	.3	.1	47	.27	.026	10	29	.45	182	.09	<3	1.33	.01	.08	<2	<.2	25	<.3	<.2	4.6	5
HA3N 600E	.7	5.2	7.0	41.0	37	15	7	250	2.31	1.8	<5	<2	18	.05	.2	.1	45	.20	.017	11	25	.38	161	.06	<3	1.19	.01	.05	<2	<.2	16	<.3	<.2	4.1	<1
HA3N 650E	.9	8.1	6.9	42.1	<30	20	8	216	2.58	3.2	<5	2	18	.03	.2	<.1	48	.19	.019	12	30	.45	130	.08	<3	1.32	.01	.05	<2	<.2	15	<.3	<.2	4.4	1
HA3N 700E	1.2	11.9	12.8	98.4	167	28	27	555	4.08	2.4	<5	4	27	.39	.4	1.9	46	.27	.058	16	26	.36	251	.03	<3	1.55	.01	.08	<2	<.2	15	<.3	<.2	5.3	<1
HA3N 750E	1.3	13.1	13.4	50.1	72	21	8	269	2.47	8.5	<5	4	16	.06	.6	.1	34	.22	.039	22	19	.30	276	.01	<3	1.12	.01	.09	<2	.2	22	.8	<.2	3.4	1
HA3N 800E	1.0	8.3	10.1	75.4	90	28	10	452	3.04	3.5	<5	3	22	.13	.3	.2	50	.28	.077	10	30	.47	250	.09	<3	1.60	.01	.09	<2	<.2	10	<.3	<.2	6.0	6
HA3N 850E	1.1	8.7	11.0	98.1	88	25	11	693	2.81	2.8	<5	3	18	.17	.3	.1	47	.26	.082	12	29	.40	250	.06	<3	1.55	.01	.08	<2	<.2	<10	<.3	<.2	6.0	<1
HA3N 900E	.9	6.4	9.3	63.1	55	20	7	297	2.62	2.0	<5	3	15	.16	.2	.1	43	.19	.029	10	25	.39	195	.07	<3	1.35	.01	.06	<2	<.2	10	<.3	<.2	5.1	1
HA3N 950E	1.2	7.3	9.0	66.7	53	19	8	340	2.55	2.2	<5	<2	16	.13	.3	.1	47	.20	.031	12	24	.38	244	.06	<3	1.46	.01	.05	<2	<.2	17	<.3	<.2	5.6	<1
HA3N 1000E	1.1	6.9	9.7	42.4	<30	12	6	194	1.96	4.6	<5	3	15	.18	.4	.1	32	.18	.035	17	18	.26	192	.01	<3	.86	<.01	.07	<2	<.2	13	<.3	<.2	3.0	<1
RE HA3N 1000E	1.0	6.3	9.2	40.5	<30	11	6	182	1.91	4.7	<5	3	15	.16	.4	.1	31	.18	.034	16	16	.26	185	.01	<3	.83	<.01	.07	<2	<.2	<10	<.3	<.2	2.9	<1
HA3N 1050E	1.3	6.1	10.1	47.6	<30	15	6	208	2.24	6.0	<5	4	14	.08	.5	.1	35	.15	.026	16	19	.29	243	.03	<3	1.09	.01	.08	<2	<.2	<10	<.3	<.2	3.6	7
HA3N 1100E	.9	4.7	7.6	30.2	<30	11	5	138	1.98	2.3	<5	3	11	.02	.3	<.1	34	.12	.023	14	17	.25	150	.02	<3	.82	.01	.04	<2	<.2	<10	<.3	<.2	2.9	<1
HA3N 1150E	1.0	8.1	9.1	46.7	<30	20	8	249	2.49	3.4	<5	4	17	.04	.3	.1	43	.21	.025	14	25	.40	205	.05	<3	1.32	.01	.06	<2	<.2	<10	<.3	<.2	4.4	1
HA3N 1200E	1.0	4.9	9.1	26.5	<30	11	5	153	1.94	4.2	<5	3	12	.03	.3	<.1	30	.14	.029	17	15	.24	180	.01	<3	.73	<.01	.05	<2	<.2	14	<.3	<.2	2.5	<1
HA3N 1250E	.8	8.8	10.5	119.1	52	23	8	448	2.57	2.7	<5	4	21	.23	.3	.1	38	.26	.070	14	23	.37	280	.05	3	1.34	.01	.12	<2	<.2	16	<.3	<.2	4.4	1
HA3N 1300E	1.0	11.2	9.3	45.4	<30	18	7	180	2.28	4.3	<5	5	17	.03	.5	.1	33	.21	.042	15	21	.42	120	.05	<3	1.00	.01	.09	<2	<.2	16	<.3	<.2	3.3	<1
HA3N 1350E	1.0	6.7	8.8	63.0	57	18	8	817	2.50	1.7	<5	2	20	.13	.2	.1	46	.31	.044	13	25	.37	332	.06	<3	1.37	.01	.07	<2	<.2	24	<.3	<.2	5.0	<1
HA3N 1400E	1.3	22.5	12.1	61.6	113	27	8	449	2.69	7.6	<5	3	22	.12	.7	.1	35	.37	.067	22	22	.41	171	.04	<3	1.01	.01	.09	<2	<.2	40	.3	<.2	3.5	18
HA3N 1450E	1.1	24.2	12.2	57.3	105	27	9	318	2.78	12.0	<5	5	29	.06	.7	.2	36	.54	.071	26	24	.54	188	.03	<3	1.16	.01	.11	<2	<.2	30	.3	<.2	3.5	1
HA3N 1500E	.8	6.4	8.6	41.3	69	12	6	407	2.07	1.2	<5	2	18	.10	.2	.1	42	.26	.027	10	21	.30	194	.04	<3	1.10	.01	.04	<2	<.2	14	<.3	<.2	4.8	2
HA3N 1550E	1.0	9.0	9.2	59.8	99	21	8	499	2.58	3.8	<5	3	14	.11	.3	.1	40	.19	.059	14	24	.36	265	.05	<3	1.30	.01	.06	<2	<.2	11	<.3	<.2	4.4	<1
HA3N 1600E	.9	11.1	9.9	53.8	39	22	9	392	2.56	4.5	<5	4	23	.06	.4	<.1	40	.32	.035	17	26	.45	276	.06	<3	1.26	.01	.07	<2	<.2	21	<.3	<.2	4.2	<1
HA3N 1650E	.6	7.6	8.4	57.6	68	19	9	314	2.61	3.6	<5	3	22	.13	.3	.1	45	.34	.025	13	26	.41	257	.07	<3	1.40	.01	.06	<2	<.2	27	<.3	<.2	5.0	1
HA3N 1700E	.9	19.9	6.4	54.7	403	19	7	1052	1.57	3.3	6	<2	153	1.49	.4	<.1	21	3.39	.085	9	15	.46	613	.03	12	.86	.01	.05	<2	<.2	40	3.1	<.2	3.1	<1
HA3N 1750E	1.2	11.1	1.5	8.9	86	5	3	1750	.46	.8	5	3	310	.45	.8	<.1	5	6.56	.081	1	3	.89	410	<.01	21	.15	.02	.02	<2	<.2	39	15.4	<.2	1.4	1
HA3N 1800E	1.0	10.9	9.4	51.2	<30	23	7	154	2.70	6.0	<5	2	37	.17	.4	.1	41	.81	.019	13	24	.37	251	.06	<3	1.53	.01	.04	<2	<.2	17	.6	<.2	5.3	1
HA3N 1850E	1.3	9.9	1.5	72.1	<30	10	9	1448	4.74	129.0	<5	3	237	.39	.4	<.1	6	6.71	.087	<1	2	.38	237	<.01	12	.11	.01	.05	<2	<.2	51	4.8	<.2	1.4	<1
HA3N 1900E	.6	12.1	5.7	62.4	93	12	6	1311	2.46	33.6	<5	3	199	.38	.3	.2	12	7.18	.091	6	9	.55	221	.01	9	.51	.01	.07	<2	<.2	43	3.3	<.2	2.2	1
HA3N 1950E	1.1	6.5	8.3	40.7	<30	18	6	154	2.44	3.4	<5	<2	19	.03	.3	<.1	42	.26	.020	10	26	.41	160	.07	<3	1.42	.01	.05	<2	<.2	17	<.3	<.2	5.5	1
HA3N 2000E	.7	8.4	8.6	48.4	74	17	7	213	2.42	1.9	<5	2	19	.07	.2	.1	38	.28	.032	11	24	.39	157	.06	<3	1.26	.01	.08	<2	<.2	13	<.3	<.2	4.8	<1
STANDARD D2/H	25.4	130.3	104.1	277.0	1990	32	17	1052	4.39	73.1	22	18	60	2.10	8.7	22.0	77	.74	.104	17	58	1.23	262	.15	27	2.43	.06	.70	20	2.8	452	.5	1.8	7.3	48

Standard is STANDARD D2/HG-500/AU-S. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA ____

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm	Tl ppm	Hg ppb	Se ppm	Te ppm	Ga ppm	Au+ ppb
GB1E 100N	2.5	5.7	9.7	41.1	<30	15	6	288	2.16	4.5	<5	2	20	.06	.4	.1	38	.20	.016	9	20	.24	256	.03	3	.83	.01	.08	<2	<.2	57	<.3	<.2	2.8	3
GB1E 50N	1.1	9.1	9.6	62.1	33	24	9	469	2.66	2.8	<5	3	28	.22	.2	.1	46	.38	.087	11	27	.45	429	.08	3	1.51	.01	.08	<2	<.2	26	<.3	<.2	5.2	2
GB1E 0N	1.3	7.8	10.0	57.5	67	21	9	340	2.64	2.8	12	4	17	.16	.4	.1	44	.21	.083	11	28	.40	169	.07	<3	1.24	.01	.11	<2	<.2	24	<.3	<.2	4.3	1
GB2E 500N	1.0	6.6	11.1	77.1	38	23	9	224	3.21	3.0	<5	2	19	.23	.3	.1	57	.21	.038	12	32	.47	191	.10	<3	1.82	.01	.05	<2	<.2	23	<.3	<.2	6.6	1
GB2E 450N	1.1	7.9	10.1	67.5	<30	28	10	213	3.12	4.1	15	5	19	.14	.4	<.1	54	.22	.041	13	32	.50	219	.08	<3	1.78	.01	.06	<2	<.2	27	<.3	<.2	5.4	2
GB2E 400N	1.0	8.5	11.4	69.4	<30	29	10	274	3.29	4.2	<5	3	19	.20	.4	.1	58	.19	.088	13	32	.50	202	.08	<3	1.86	.01	.05	<2	<.2	24	<.3	<.2	5.9	1
GB2E 350N	1.1	7.7	11.0	67.7	<30	27	9	282	3.16	2.8	6	3	22	.11	.2	.1	55	.26	.044	12	32	.49	254	.11	<3	1.91	.01	.06	<2	<.2	15	<.3	<.2	6.9	2
GB2E 300N	1.0	6.8	9.8	59.7	37	24	9	243	2.97	3.9	9	3	23	.21	.4	.1	53	.27	.042	13	31	.46	268	.08	<3	1.52	.01	.08	<2	<.2	<10	<.3	<.2	5.0	<1
GB2E 250N	2.1	9.3	11.3	83.6	39	22	10	344	2.66	3.6	<5	3	20	.23	.4	.3	49	.18	.082	14	30	.41	285	.07	<3	1.42	.01	.06	<2	.2	36	<.3	<.2	5.4	<1
GB2E 200N	1.1	6.6	9.2	63.1	<30	20	7	187	2.50	2.4	12	2	24	.11	.2	.1	48	.32	.038	11	28	.43	204	.08	<3	1.54	.01	.06	<2	<.2	<10	<.3	<.2	5.8	<1
GB2E 150N	1.8	8.9	11.1	95.0	42	30	9	249	3.34	5.1	<5	2	23	.25	.5	.1	56	.26	.058	11	30	.44	290	.08	<3	1.83	.01	.06	<2	<.2	111	<.3	<.2	6.8	2
RE GB2E 150N	2.0	9.9	12.1	92.8	43	28	9	247	3.29	5.5	<5	2	22	.28	.5	.1	55	.25	.058	11	29	.43	283	.08	<3	1.78	.01	.06	<2	<.2	33	<.3	<.2	7.8	2
GB2E 100N	.8	7.8	10.6	43.0	<30	19	5	118	2.10	2.5	11	3	17	.03	.2	.1	38	.24	.062	13	25	.46	121	.05	<3	1.16	.01	.06	<2	<.2	21	<.3	<.2	4.2	2
GB2E 50N	1.4	9.1	8.6	45.4	<30	20	7	158	2.37	3.8	<5	3	17	.08	.4	<.1	43	.15	.020	12	26	.42	177	.06	<3	1.21	.01	.04	<2	<.2	170	<.3	<.2	4.0	2
GB2E 0N	1.1	6.5	9.4	50.4	35	20	8	186	2.58	2.5	5	2	18	.10	.3	.1	51	.20	.017	11	28	.42	281	.07	<3	1.60	.01	.04	<2	<.2	14	<.3	<.2	5.8	2
GB3E 500N	.8	6.4	10.3	47.5	<30	20	8	167	2.41	2.4	14	5	17	.08	.3	<.1	46	.20	.023	13	26	.39	246	.06	<3	1.48	.01	.05	<2	<.2	19	<.3	<.2	5.0	1
GB3E 450N	1.2	10.2	11.5	41.7	<30	22	6	114	2.45	4.2	<5	3	18	.11	.5	<.1	44	.20	.029	14	24	.28	250	.03	<3	1.31	.01	.04	<2	<.2	239	<.3	<.2	3.8	1
GB3E 400N	2.1	9.9	11.9	68.8	30	24	8	220	2.78	4.5	<5	3	18	.17	.5	.1	48	.21	.040	12	26	.29	344	.06	<3	1.56	.01	.04	2	.2	36	<.3	<.2	5.6	1
GB3E 350N	.6	16.3	9.8	41.4	<30	25	8	165	2.64	3.7	11	5	22	.06	.4	<.1	47	.27	.042	20	30	.52	222	.06	<3	1.43	.01	.05	<2	<.2	29	<.3	<.2	4.4	2
GB3E 300N	1.0	10.4	8.8	40.3	<30	17	5	114	1.71	2.8	5	3	18	.07	.4	.1	29	.20	.031	12	22	.34	163	.03	<3	.84	.01	.04	<2	<.2	36	<.3	<.2	2.7	1
GB3E 250N	.8	8.6	9.0	48.5	<30	22	8	210	2.56	2.7	<5	2	19	.05	.2	<.1	43	.22	.030	12	28	.53	197	.06	<3	1.47	.01	.04	<2	<.2	20	<.3	<.2	4.5	1
GB3E 200N	.9	11.9	9.9	45.4	41	25	9	240	2.64	5.0	<5	5	24	.06	.5	.1	42	.32	.046	14	29	.54	203	.06	<3	1.27	.01	.06	<2	<.2	<10	<.3	<.2	3.6	4
GB3E 150N	1.0	18.0	9.6	53.0	<30	34	10	264	2.71	4.9	<5	4	22	.16	.5	.1	41	.29	.052	17	35	.59	241	.06	<3	1.27	.01	.06	<2	<.2	58	<.3	<.2	3.6	3
GB3E 100N	.7	8.2	7.5	62.5	46	20	8	292	2.55	2.3	11	4	16	.12	.2	.1	48	.17	.052	11	28	.40	207	.07	<3	1.56	.01	.06	<2	<.2	14	<.3	<.2	5.6	1
GB3E 50N	.8	6.8	7.4	53.3	<30	18	7	193	2.36	2.2	<5	<2	18	.07	.2	<.1	45	.19	.023	9	24	.43	217	.06	<3	1.43	.01	.04	<2	<.2	<10	<.3	<.2	4.9	1
GB3E 0N	1.0	6.2	9.5	87.[illegible]	<30	26	9	332	3.17	2.4	<5	3	16	.23	.3	.1	55	.18	.079	11	31	.40	285	.10	<3	1.85	.01	.05	<2	<.2	24	<.3	<.2	6.9	2
HA3N 0E	2.1	10.1	11.5	61.4	33	14	6	332	2.33	7.0	7	3	19	.22	1.0	<.1	37	.16	.035	14	14	.22	236	.01	<3	.80	<.01	.07	<2	<.2	<10	<.3	<.2	3.0	<1
HA3N 50E	2.0	25.1	9.2	54.3	84	15	7	190	2.19	8.6	<5	3	16	.08	1.3	<.1	27	.13	.033	15	12	.18	155	.01	<3	.59	<.01	.05	<2	<.2	22	.4	<.2	1.9	1
HA3N 100E	1.0	8.7	10.9	120.5	213	28	10	871	3.18	1.7	<5	2	24	.21	.3	.1	46	.32	.140	14	29	.37	404	.07	<3	1.56	.01	.13	<2	<.2	19	<.3	<.2	6.3	1
HA3N 150E	.9	10.3	7.4	63.3	94	24	9	353	2.74	4.2	<5	3	21	.09	.4	.1	45	.27	.093	11	26	.46	184	.07	<3	1.26	.01	.12	<2	<.2	<10	<.3	<.2	4.3	2
HA3N 200E	1.2	14.1	9.9	47.9	165	19	7	336	1.91	8.5	<5	2	112	.20	.8	<.1	24	4.35	.080	14	14	.57	189	.01	3	.69	.01	.08	<2	<.2	45	.7	<.2	2.0	1
HA3N 250E	.8	5.4	9.3	71.4	117	24	9	850	2.86	1.7	<5	3	23	.16	.3	.1	41	.27	.127	12	27	.36	549	.06	<3	1.41	.01	.11	<2	<.2	14	<.3	<.2	5.1	1
HA3N 300E	.9	8.6	6.6	45.2	48	19	7	284	2.48	3.0	11	2	22	.05	.5	<.1	45	.27	.054	10	24	.45	306	.04	<3	1.21	.01	.06	<2	<.2	<10	<.3	<.2	3.9	4
HA3N 350E	1.3	17.7	11.5	49.2	94	24	9	272	2.70	7.5	<5	3	21	.04	.7	<.1	37	.26	.081	18	24	.32	160	.03	3	1.01	.01	.10	<2	<.2	19	.4	<.2	3.3	<1
STANDARD D2/	25.8	131.7	101.0	282.3	1999	32	17	1064	4.62	77.8	14	17	62	2.14	7.6	22.3	77	.71	.109	17	58	1.23	274	.15	26	2.46	.05	.73	21	2.6	472	.3	2.0	7.4	47

Standard is STANDARD D2/HG-500/AU-S. Samples beginning 'RE' are Reruns and 'RRE' are Reject Reruns.

Data FA

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METHOD FOR WET GEOCHEM GOLD ANALYSIS

Sample Preparation

Soils and sediments are dried(60 deg. C) and sieve to -80 mesh.

Rocks and cores are crushed and pulverized to -100 mesh.

Sample digestion

1. 10g samples in 250 ml beaker, ignite at 600 deg. C for four hours.
2. Add 40 ml of 3:1:2 mixture HCL:HNO3:H2O .
3. Cover beaker with lids.
4. Boil in hot water bath for one hour.
5. Swirl samples 2 to 3 times within the hour.
6. Cool, add 60 ml of distilled water and settle.
7. Pour 50 ml of leached solution using a graduated cylinder into 100ml volumetric flask.
8. Add 10 ml of MIBK and 25 ml of distilled water.
9. Shake 3 to 4 mins in shaker.
10. Add additional 25 ml of distilled water to stripe out excess iron.
11. Shake each flask 10 times.
12. Pour MIBK into container for graphite AA finished.

(M1)

LEGEND

INSTRUMENT: EDA OMNI PLUS

TRANSMITTER: HAWAII (NPM 21.4 khz)

IN-PHASE (%)

QUADRATURE (%)

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

25,281

LEGEND

INSTRUMENT: EDA OMNI PLUS

TRANSMITTER: SEATTLE, Wa (NLK 24.8 khz)

IN-PHASE (%)

QUADRATURE (%)

LEGEND

INSTRUMENT: EDA OMNI PLUS

TOTAL FIELD (nt)

100 m 0 100 m 200 m 300 m

SCALE 1:5000

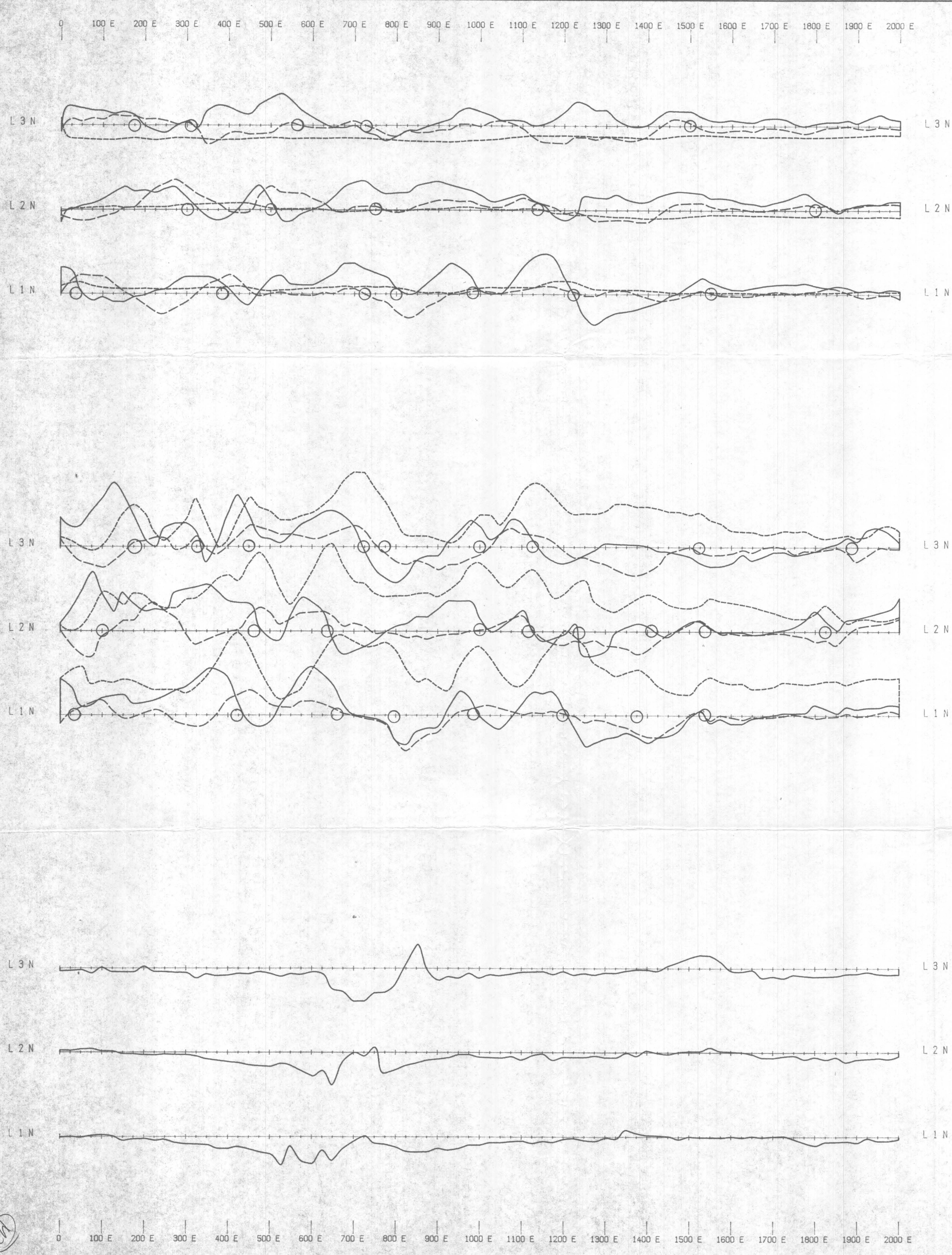
FIGURE 6A

TIZARD EXPLORATIONS INC

KETCHIKA PROPERTY
CLAIM BLOCK H
Grid A

GEOPHYSICAL SURVEYS
Data

DONEGAL DEVELOPMENTS LTD



LEGEND

INSTRUMENT: EDA OMNI PLUS
TRANSMITTER: HAWAII (NPM 21.4 khz)
IN-PHASE ________
QUADRATURE ___ ___
PROFILE SCALE: 1 cm = 10 %
FIELD STRENGTH_____.
PROFILE SCALE: 1 cm = 5 %
BASE LEVEL: 10 %
ANOMALY LOCATION O
CONDUCTOR AXIS ________

LEGEND

INSTRUMENT: EDA OMNI PLUS
TRANSMITTER: SEATTLE, Wa (NLK 24.8 khz)
IN-PHASE ________
QUADRATURE ___ ___
PROFILE SCALE: 1 cm = 10 %
FIELD STRENGTH_____.
PROFILE SCALE: 1 cm = 5 %
BASE LEVEL: 40 %
ANOMALY LOCATION O
CONDUCTOR AXIS ________

LEGEND

INSTRUMENT: EDA OMNI PLUS
PROFILE SCALE: 1 cm = 100 nt
BASE LEVEL: 57800 nt

100 m 0 100 m 200 m 300 m

SCALE 1:5000

FIGURE 7A

TIZARD EXPLORATIONS INC

KETCHIKA PROPERTY
CLAIM BLOCK H
Grid A

GEOPHYSICAL SURVEYS
Profiles

DONEGAL DEVELOPMENTS LTD

M3

LEGEND

Pb(ppm) Zn(ppm)

Ag(ppb) Ba(ppm)

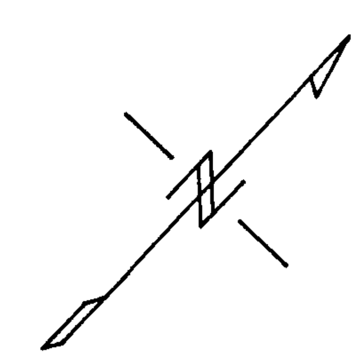
Values<detection limit set to 0
Zn(ppm)
Profile Scale: 1 cm = 50 ppm

LEGEND

Mo(ppm) Cu(ppm)

Hg(ppb) Au(ppb)

Values<detection limit set to 0
Cu(ppm)
Profile Scale: 1 cm = 20 ppm



LEGEND

Ni(ppm) As(ppm)

Sb(ppm) Se(ppm)

Values<detection limit set to 0
As(ppm)
Profile Scale: 1 cm = 10 ppm

100 m 0 100 m 200 m 300 m

SCALE 1:5000

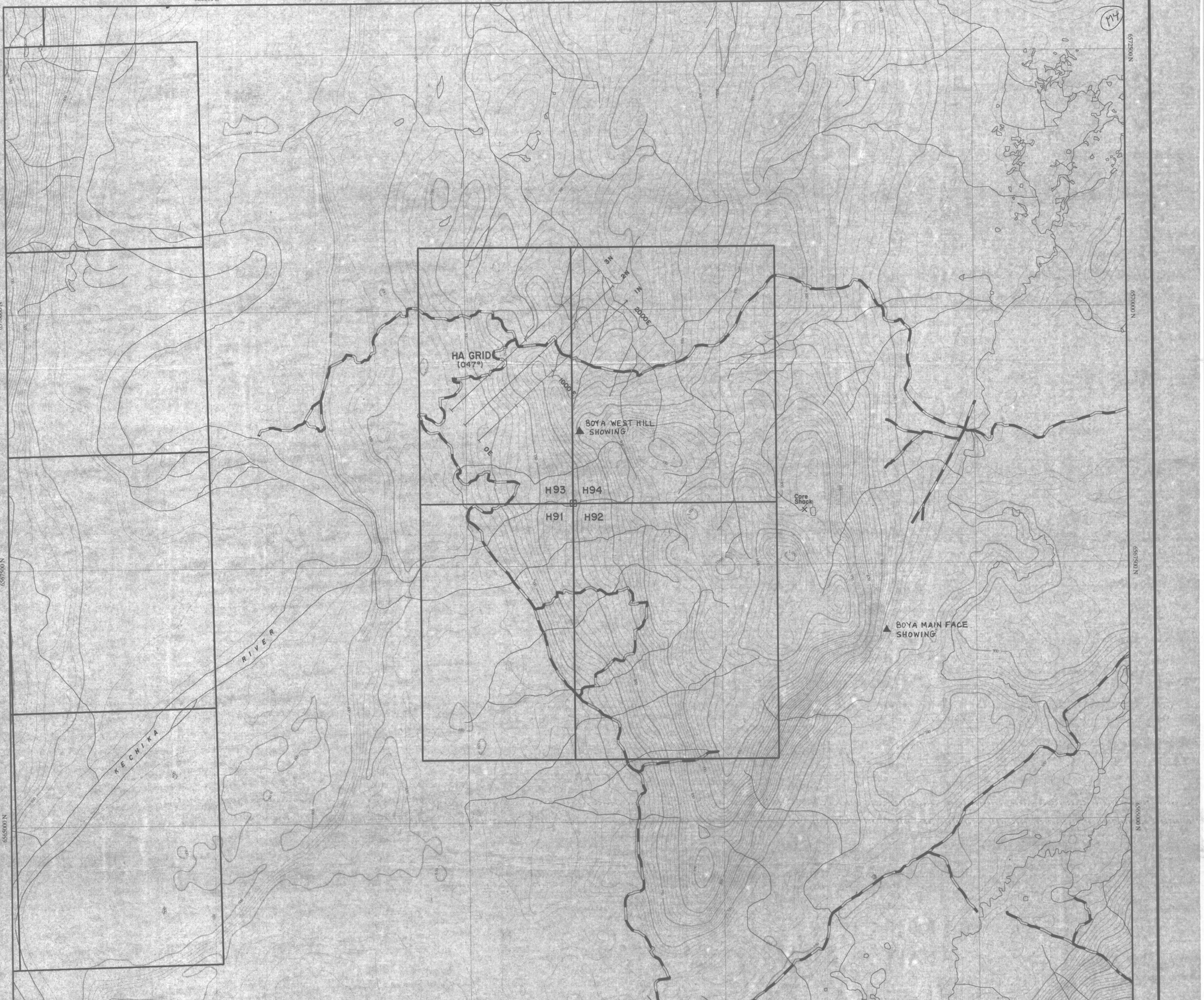
FIGURE 8A

TIZARD EXPLORATIONS INC

KETCHIKA PROPERTY
CLAIM BLOCK H
Grid A

SOIL GEOCHEMICAL SURVEY
Data & Profiles

DONEGAL DEVELOPMENTS LTD



Legal corner post

TIZARD EXPLORATIONS INC.

DONEGAL DEVELOPMENTS LTD.

KECHIKA PROPERTY

H CLAIM BLOCK

1997 WORK PROGRAM COMPILATION MAP

N.T.S. 94M-4E, 5E

LIARD M.D., B.C.

0 1 2 KM

Date : Nov. 1997	Scale 1:20,000	FIGURE : 9
Drawn by :		

CHONG