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GEOLOGICAL AND GEOCHEMICAL ASSESSMENT REPORT ON WANOKANA SOUTH NORTHERN VANCOUVER ISLAND, BRITISH COLUMBIA

N.T.S. 92L/12

Latitude: 50° 38' N
Longitude: 127° 43' W

For

Exmar Resources Ltd.

1030 - 609 Granville Street
Vancouver, British Columbia
V7Y 1G5

By

Rod W. Husband, B.Sc.

August 24, 1989

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SUMMARY

Daiwan Engineering Ltd. conducted an exploration program on the Wanokana claims near Port Hardy, B.C. between June 12 and June 29, 1989. The program consisted of geological mapping and geochemical sampling of stream sediments. A total of 16 rock samples and 11 stream sediments were collected from the claims.

The results of the program failed to produce any significant targets for follow-up work.

A total of $5,223.97 was spent on the property conducting the exploration program.

INTRODUCTION

At the request of Mr. Ronald Philp, president of Exmar Resources Ltd., Daiwan Engineering Ltd. conducted a reconnaissance geology and geochemical program on the Wanokana Southwest and Wanokana Southeast claims. The program was conducted between June 12 and June 29, 1989.

The program consisted of geological mapping and geochemical stream sediment sampling. A total of 16 rock samples, 11 stream sediments were collected during exploration.

This report is a compilation of work completed on the property during the exploration program and from previous reports of work in the area.

LOCATION AND ACCESS

The Wanokana south property is located on northern Vancouver Island, approximately 360 km (225 miles) northwest of Vancouver (Figure 1). Locally this claim group covers 10 square kilometres south of Kains Lake on N.T.S. topographic map 92L/12 (Figures 1 & 2).

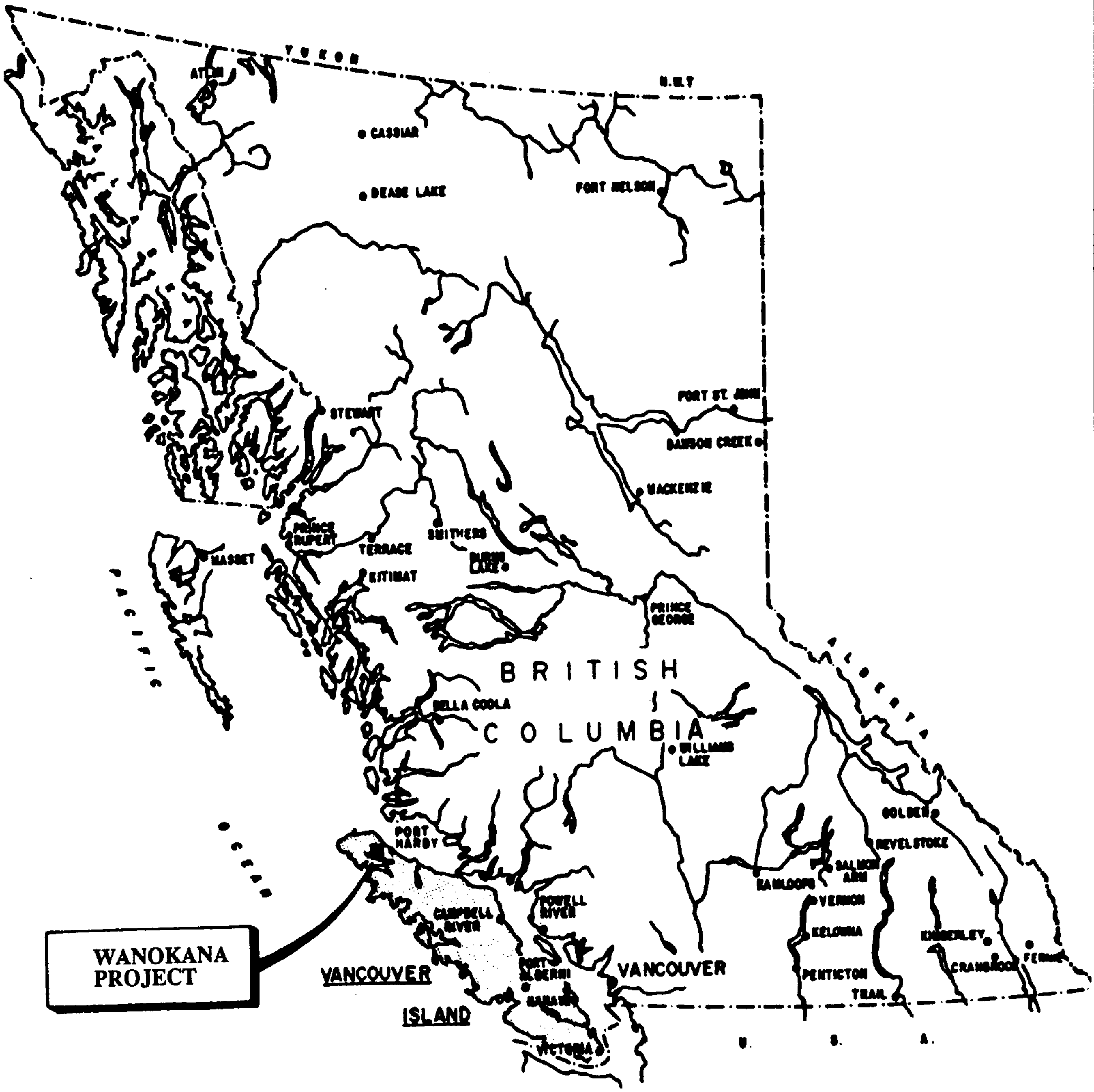
Access to the western claim is reached by well maintained logging roads. The main access is provided by the Wanokana main logging road which leaves the Coal Harbour - Holberg Road at a point 10 kilometres from Coal Harbour.

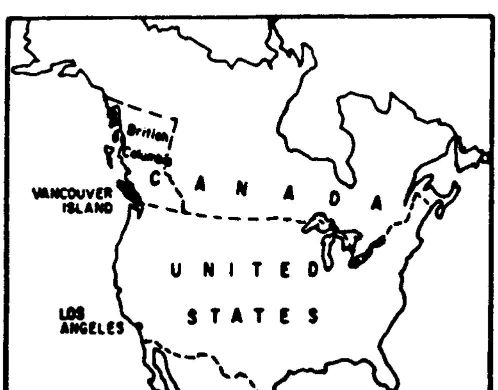
Regular Dash 7 air service is provided by both Canadian Airlines and Air B.C. from Vancouver to Port Hardy, each on a twice daily schedule. Alternately, there is good highway access, with travel from Vancouver taking 6 hours.

Port Hardy is the local commercial centre, but there are forestry and fishing centres at Coal Harbour and Holberg.

PHYSIOGRAPHY AND CLIMATE

The property is characterized by many low, northwest to westerly trending hills and ridges bounded by narrow deeply incised valleys and steep slopes. Elevations range from sea level to over 500 metres (1,500 ft). Within the claim block ridge tops are commonly about 300 metres (1,000 ft) above valley bottom. The majority of the property is within N.T.S. topographic map 92L/12W.





EXMAR RESOURCES LTD.		
WANOKANA SOUTH PROJECT NANAIMO M.D., B.C.		
LOCATION MAP		
SCALE AS SHOWN	DATE AUGUST 1989	FIGURE No. 1
DAIWAN ENGINEERING LTD.		

The claims are located within an active logging area, consequently forest cover varies from mature stands of fir, hemlock, spruce and cedar to dense second growth or to open clear-cut areas of recent logging. Low areas, especially along creeks are swampy and have thick brush and berry bushes.

Thick humus development on the forested slopes and scattered residual glacial gravels in the valley bottoms restrict geological mapping in these areas. Rock exposure is limited to road cuts and well scoured creeks.

The area is characterized by warm summers and mild winters. Snowfall is limited to the higher elevations and exploration can usually continue year round.

PROPERTY

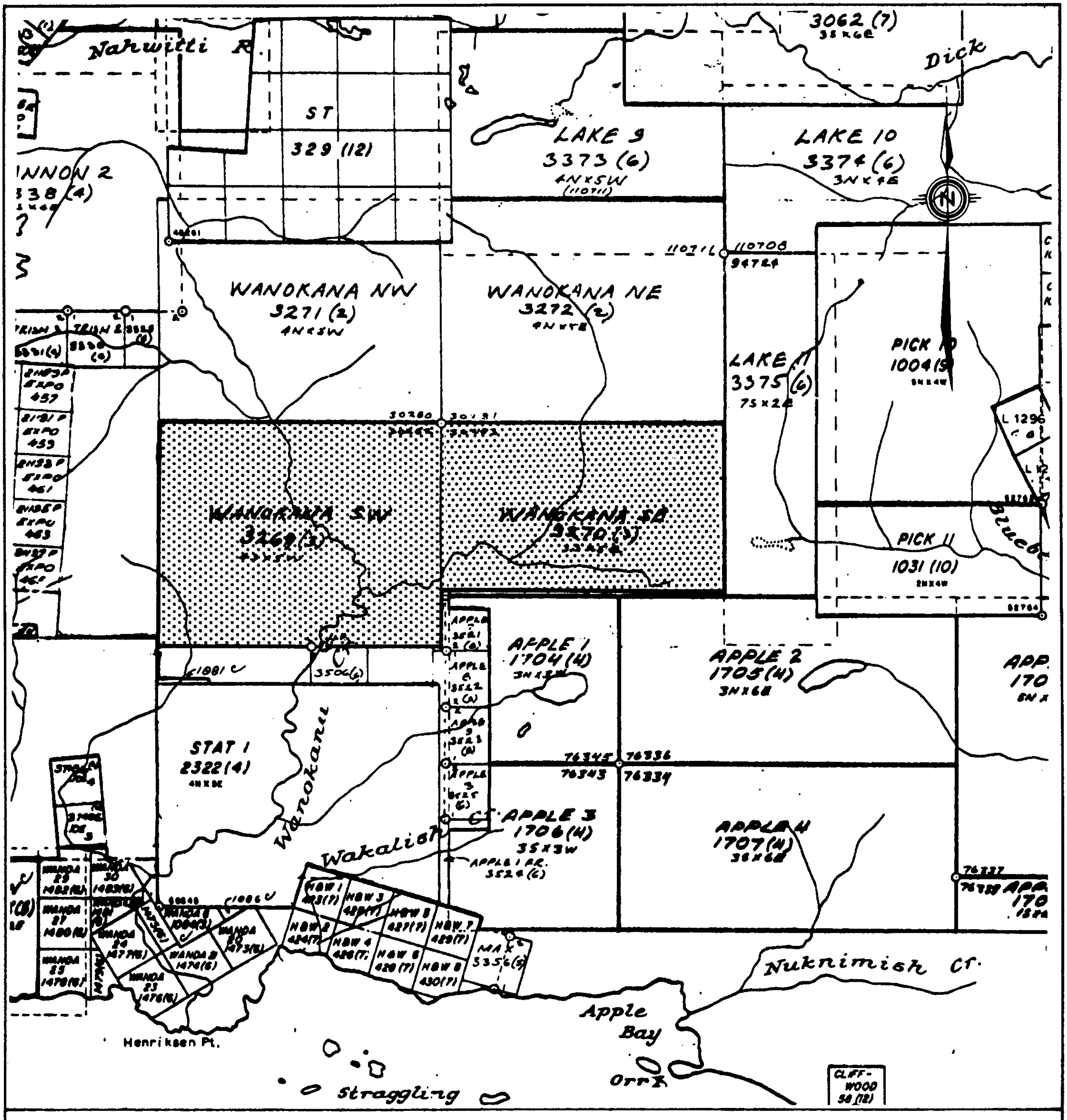
The Wanokana south property consists of 36 units with the following particulars:

Claim	Rec. No.	Units	Date of Record
Wanokana S.W.	3269	20	March 7, 1989
Wanokana S.E.	3270	15	March 7, 1989
Shear	3506	1	June 25, 1989
		Total 36 Units	

HISTORY

Northern Vancouver Island has been intermittently explored since the early 1800s. Between 1849 and 1920 several attempts were made at mining coal in the Port Hardy area. These operations failed due to the poor quality of coal. In the early 1900s, minor amounts of coal was mined at Coal Harbour, located on the north shore of Holberg Inlet.

Copper was discovered in 1911 at Benson Lake, 25 miles southeast of Port Hardy. This property, now known as Coast Copper Mine, was acquired by Cominco in 1916. They carried out considerable underground development work, but closed down in 1931, remaining idle until 1960. It was then actively mined between 1962-1972 producing copper and iron concentrates which were shipped to Japan.



SCALE

km 0 — 1 — 2 — 3 km.

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WANOKANA SOUTH PROJECT

NANAIMO M.D., B.C.

CLAIM MAP

SCALE	DATE	FIGURE No.
1 : 50 000	AUGUST 1989	2

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Magnetite occurrences were located in the Benson Lake area in 1897, but were considered of interest only for their copper content until the early 1950s. They were explored for their iron content between 1950-56, then mined until 1967 when the operation ceased. Iron concentrates were also shipped to Japan.

In 1963, the B.C. Department of Mines published the results of a recently completed aeromagnetic survey covering the northern end of Vancouver Island.[2] Since magnetite deposits were of interest at this time, considerable exploration activity was generated in the area examining all magnetic anomalies of interest.

One magnetic anomaly of fairly large areal extent was recorded on the eastern end of Rupert Inlet. Diligent prospecting in this area located a number of poorly exposed copper occurrences. A large number of claims were located in 1966 and subsequently the property was acquired by Utah Construction and Mining Company, now BHP-Utah Mines Ltd. Over the years, they added to the claim block and conducted extensive geological-geochemical-geophysical surveys and diamond drilling throughout the claim block. This work resulted in locating the large copper-molybdenum deposit which was developed into Island Copper Mine. The mine commenced production in October 1971. Production to 1987 has been in excess of 200 million tonnes milled, for concentrate sales of 753,000 tonnes of copper, 23.1 million grams gold, 168 million grams silver, and 15.3 tonnes molybdenum[14].

With the discovery of significant copper mineralization on the Utah property, a great deal of interest was generated in the area by individuals and companies searching for copper. Many copper occurrences were located but none were found to be economic.

During the height of the exploration activity, Utah Mines Ltd. controlled most of the ground extending from the east end of Rupert Inlet to the west end of Holberg Inlet. Their properties included the large block of claims covering the Island Copper deposit, as well as the favourable geology on trend to the northwest (most of the present Expo group). Exploration on these claims had located a large area of low grade copper-molybdenum mineralization (the Hushamu zone) estimated to contain 58,420,000 mineable tonnes grading 0.32% Cu, 0.008% Mo and 413 ppb gold. The drill indicated reserve for the deposit is over 100 million tonnes at the same grade.

A number of other alteration zones, similar to that at Island Copper Mine and the Hushamu zone, were investigated. Among these are the Red Dog and the Hep deposits, located within a few kilometers west of the Wanokana property.

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WANOKANA SOUTH PROJECT
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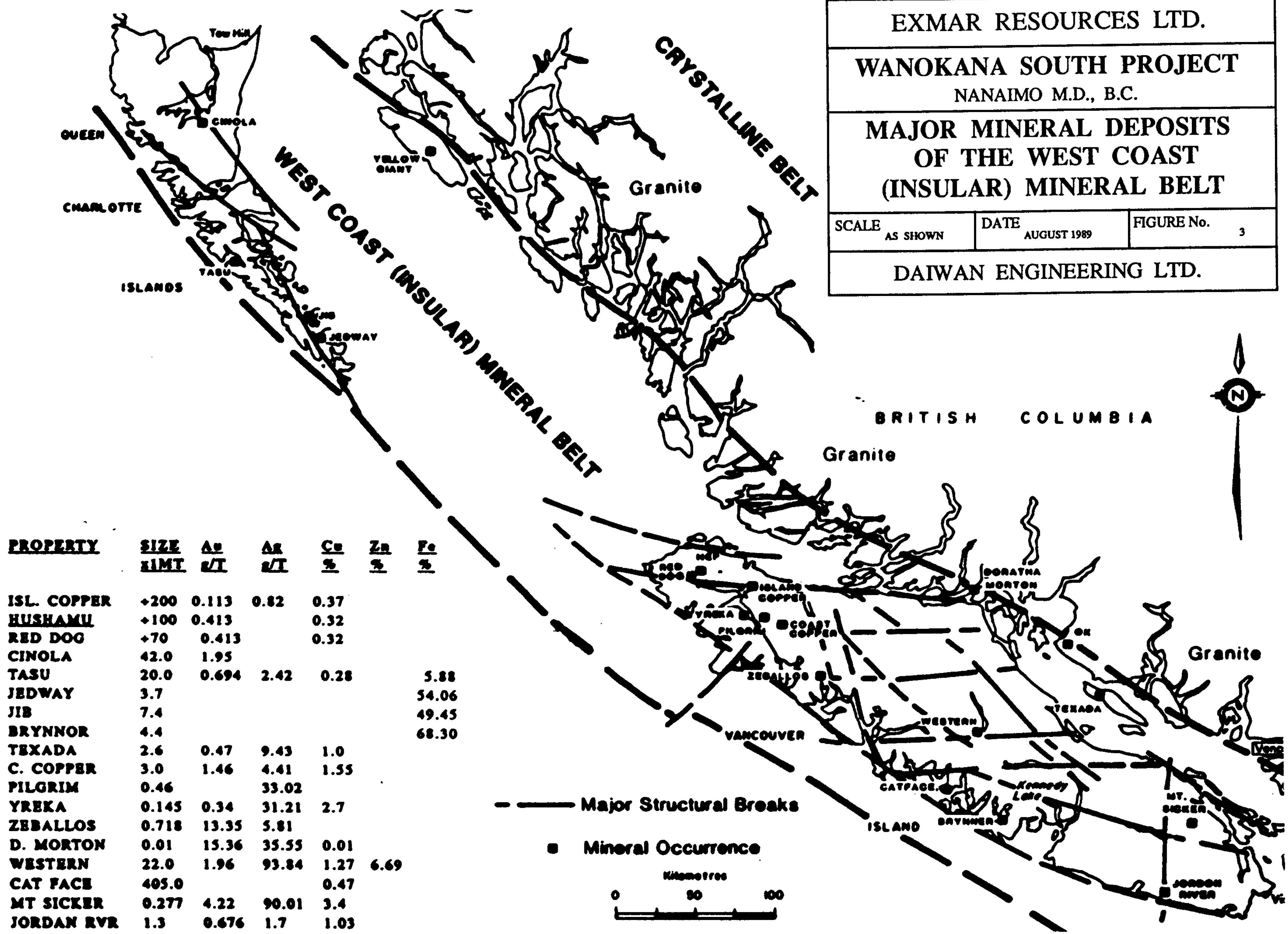
MAJOR MINERAL DEPOSITS OF THE WEST COAST (INSULAR) MINERAL BELT

SCALE	DATE	FIGURE No.
AS SHOWN	AUGUST 1989	3

DAIWAN ENGINEERING LTD.



PROPERTY	SIZE x1MT	Au g/T	Ag g/T	Cu %	Zn %	Fe %
ISL. COPPER	+200	0.113	0.82	0.37		
HUSHAMU	+100	0.413		0.32		
RED DOG	+70	0.413		0.32		
CINOLA	42.0	1.95				
TASU	20.0	0.694	2.42	0.28		5.88
JEDWAY	3.7					54.06
JIB	7.4					49.45
BRYNNOR	4.4					68.30
TEXADA	2.6	0.47	9.43	1.0		
C. COPPER	3.0	1.46	4.41	1.55		
PILGRIM	0.46		33.02			
YREKA	0.145	0.34	31.21	2.7		
ZEBALLOS	0.718	13.35	5.81			
D. MORTON	0.01	15.36	35.55	0.01		
WESTERN	22.0	1.96	93.84	1.27	6.69	
CAT FACE	405.0			0.47		
MT SICKER	0.277	4.22	90.01	3.4		
JORDAN RVR	1.3	0.676	1.7	1.03		

On the ground covered by the Wanokana Southwest claim, the 1922 annual report for the Ministry of Energy, Mines, and Petroleum Resources reports a silver, lead and zinc showing. The report states that there is a mineralized zone 60 metres wide, comprised of breccia, quartz and calcite, similar to that on the Expo claims. This mineralized zone has erratic amounts of pyrite, sphalerite, and galena. Work reported on the showing consists of two small adts and several open cuts. A grab sample of the mineralized breccia assayed 27.4 g/tonne silver, 10% zinc, and 1.7% lead.

REGIONAL GEOLOGY

Vancouver Island, north of Holberg and Rupert Inlets, is underlain by rocks of the Vancouver Group. These rocks range in age from Upper Triassic to Lower Jurassic. They are intruded by rocks of Jurassic and Tertiary age and disconformably overlain by Cretaceous sedimentary rocks. Figure 4 shows the geological mapping of the northern part of the Island.

Faulting is prevalent in the area. Large-scale block faults with hundreds to thousands of metres of displacement are offset by younger strike-slip faults with displacements up to 750 metres (2,500 feet).

The Vancouver Group is described as follows:

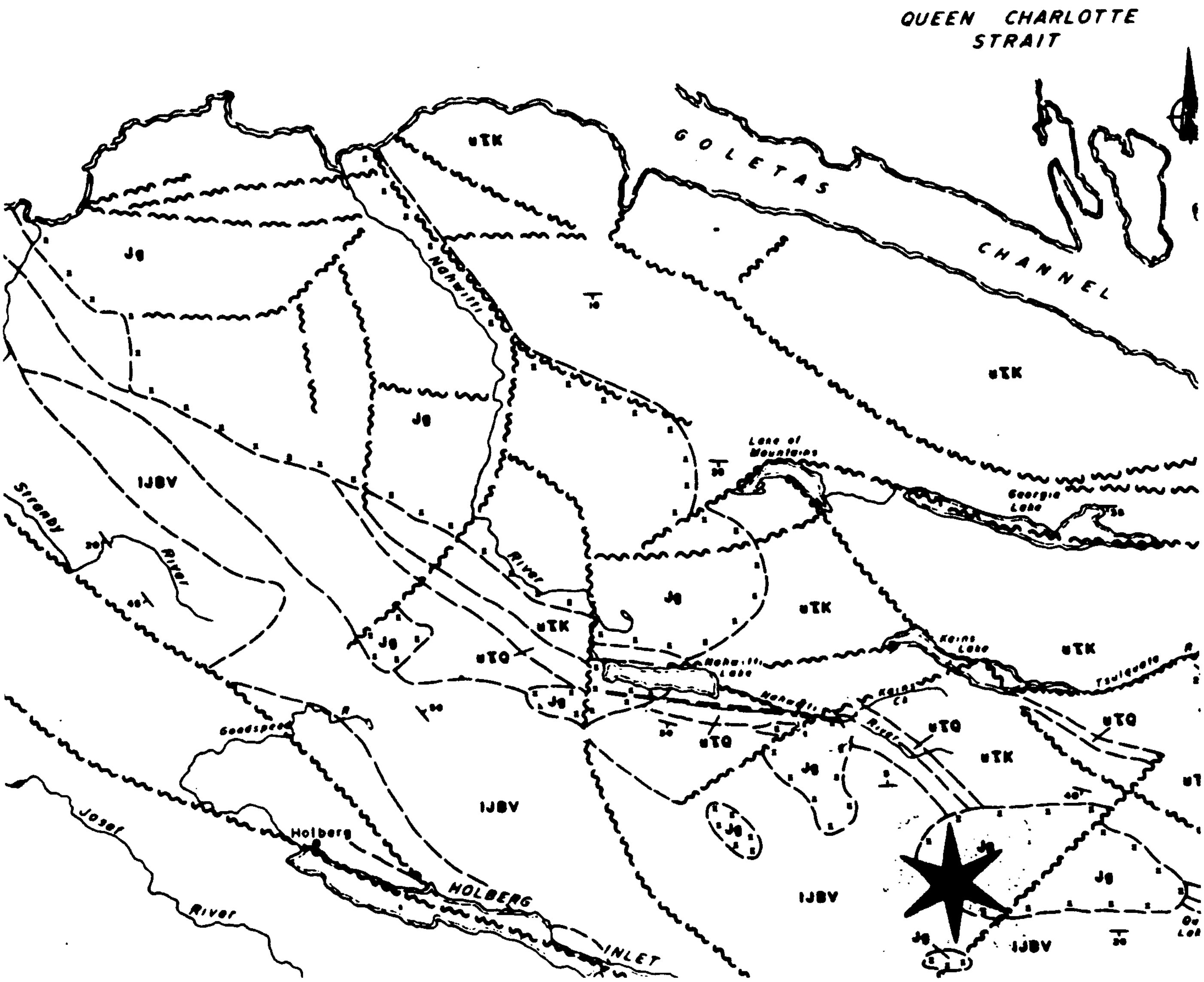
(a) Basal Sediment - Sill Unit: Middle and Upper Triassic Age

The basal sediment-sill unit consists of laminated to graded-bedded black shales and siltstones, silicified and invaded by diabase sills. The entire unit is estimated as 750-900 metres (2,500-3,000 feet) with the sedimentary portion being about 180 metres (600 feet) thick.

(b) Karmutsen Formation: Upper Triassic Age

Karmutsen Formation consists of 3,000-6,000 metres (10-20,000 feet) of volcanic flows, pyroclastics and minor sediments. It includes three distinct units: a lower pillow lava unit, a middle pillow breccia unit, and an upper lava flow unit. The latter consists of predominantly porphyritic and amygdaloidal basalt flows, individual flows of which range from 1-30 metres (to 100 feet) thick.

Two thin bands of limestone occur near the top of the Karmutsen Formation. The distribution of limestone outcrops is erratic and suggests a series of lenses at the same general stratigraphic horizon rather than one continuous bed.



LEGEND

JURASSIC

Jg — ISLAND INTRUSIONS: quartz diorite, granodiorite, quartz monzonite, quartz feldspar porphyry.

LOWER JURASSIC (BONANZA GROUP)

lJBV — Andesitic to rhyodacitic lava, tuff, breccia

TRIASSIC-UPPER TRIASSIC (VANCOUVER GROUP)

uTQ — QUATSINO FORMATION: limestone.

uTK — KARMUTSEN FORMATION: basaltic lava, pillow lava, breccia, aquagene tuff, greenstone; minor limestone.

0 2 4 6 8 10
Km.

SYMBOLS

— — — Geological boundary

~~ ~~ ~~ Fault, Lineament (approximate)

⊥ Bedding

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WANOKANA SOUTH PROJECT NANAIMO M.D., B.C.		
REGIONAL GEOLOGY		
SCALE	DATE AUGUST 1989	FIGURE No. 4
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The lower contact of the formation has not been observed on the northern part of Vancouver Island. The upper contact with limestone of the Quatsino Formation generally is sharp and easily recognized, although limestones and basalt locally are interbedded over a narrow stratigraphic interval at this contact.

Low-grade metamorphism of the Karmutsen Formation rocks has resulted in pervasive chloritization and amygdules filled with epidote, carbonate, zeolite, prehnite, chlorite, and quartz.

Basaltic rocks along contacts with intrusive stocks are in many places converted to dark-coloured hornblende hornfels. Skarn zones occur sporadically along these contacts, both in the inter-lava limestones and in the basalts.

(c) **Quatsino Formation: Upper Triassic Age**

The Quatsino Formation ranges from 60-1,000 metres (200-3,500 feet) in thickness and consists almost entirely of limestone with a few thin andesite or basalt flows. It has conformable contacts with both the overlying Parson's Bay sediments and the underlying Karmutsen volcanics. The upper contact with the Parson's Bay Formation is gradational with limestone grading upward into carbonaceous argillites.

Within the contact metamorphic/metasomatic aureoles adjacent to intrusive stocks, skarn development and silicification of limestone, accompanied by chalcopyrite-magnetite or galena, sphalerite and silver mineralization has been noted.

(d) **Parson's Bay Formation: Upper Triassic Age**

The Parson's Bay Formation consists of between 60-360 metres (200-1,200 feet) of argillite, minor limestone, agglomeratic and tuffaceous limestone, tuff, quartzite and minor conglomerate. At both its base and top, the unit exhibits gradational contacts with the Quatsino and Harbledown Formations.

On a regional scale, the rocks are unmetamorphosed. Locally, adjacent to intrusive contacts, pyrite-magnetite replacement bands up to one-half inch thick in banded tuffs have been observed.

(e) **Harbledown Formation: Lower Jurassic Age**

The Harbledown Formation consists of 485 metres (1,600 feet), a non-volcanic argillite-greywacke sequence separating the Parson's Bay from the Bonanza Formation.

(f) Bonanza Formation: Lower Jurassic Age

The Bonanza Formation is approximately 1,500 metres (8,500 feet) thick. The lower portion consists of bedded and massive tuffs, formational breccias and rare amygdaloidal and porphyritic flows, in the compositional range andesite to basalt. Porphyritic dykes and sills intrude the lower part of the unit. In the upper part of the Bonanza, rhyodacite flows and breccias become more numerous and are interbedded with andesite and basalt flows, tuffs and tuff breccias.

Regional metamorphism within the Bonanza Volcanics is very low grade, possibly zeolite facies. Plagioclase commonly is albitized and saussuritized. Chlorite, epidote and laumontite occur within the matrix of volcanic breccias, in veinlets, and in amygdules. Coarse intraformational breccias locally are hematized.

Biotite and amphibolite hornfelses occur adjacent to stocks which intrude the Bonanza Volcanics.

"Pyrobitumen", a black hydrocarbon erratically distributed within the Bonanza rocks, generally occurs as fracture fillings or in the centre of zeolite-carbonate veins. Its distribution is not related to the position of the intrusive stocks.

Cretaceous Sediments

The Vancouver Group is unconformably overlain by non-marine Cretaceous sediments of the Longarm Formation which are estimated to be about 300 metres (1,000 feet) thick in the Port Hardy area. These sediments, consisting of conglomerate, sandstone, greywacke, and siltstone and some carbonaceous and impure coal seams, occupy local basins. Early coal mining in the district was from several of these basins.

Intrusive Rocks

The Vancouver Group rocks are intruded by a number of Jurassic-aged stocks and batholiths. In the Holberg Inlet area a belt of northwest-trending stocks extend from the east end of Rupert Inlet to the mouth of Stranby River on the north coast of Vancouver Island[15].

Quartz-feldspar porphyry dikes and irregular bodies occur along the south edge of the belt of stocks. Dykes are characterized by coarse, subhedral quartz and plagioclase phenocrysts set in a pink, very fine grained, quartz and feldspar matrix. They are commonly extensively altered and pyritized. At Island Copper Mine, these porphyries are enveloped by altered, brecciated, mineralized Bonanza wallrocks. The porphyries, too, are cut by siliceous veins, pyritized, extensively altered, and are mineralized where they have been brecciated. The quartz-feldspar porphyries are thought to be differentiates of middle Jurassic, felsic, intrusive rocks.

Other intrusive rocks of lesser significance include felsic dykes and sills around the margins of some intrusive stocks; dykes of andesitic composition, which cut the Karmutsen, Quatsino and Parson's Bay Formation, and represent feeders for Bonanza volcanism; and Tertiary basalt-dacite dykes intruding Cretaceous sediments.

Structure

The structure of the rocks north of Holberg and Rupert Inlets is that of shallow synclinal folding along a northwesterly fold axis. The steeper southwesterly limbs of the folds have apparently been truncated by faults roughly parallel to the fold axis. Failure of limestone during folding may have influenced the location of some of the faulting as indicated by their proximity of the Dawson and Stranby River Faults to the Quatsino horizon. Transverse faulting is pronounced and manifested by numerous north and northeasterly trending faults and topographic lineaments (Figure 3).

The northern part of Vancouver Island lies in a block faulted structural setting with post Lower Cretaceous northwesterly trending faults apparently being the major system (Figure 4). This system causes both repetition and loss of parts of the stratigraphic section, with aggregate movement in a vertical sense in the order of tens to hundreds of metres. The most significant of these fault systems trends west to northwest following Rupert and Holberg Inlets. Near the west end of the Holberg Inlet it splits with the main branch following the Holberg Inlet, the other branch passing through the west side of the Stranby Valley. Another northwesterly to westerly system passes through William Lake and still another smaller system passes through Nahwitti Lake.[6]

Northeasterly trending faults comprise a subordinate fault system. In some cases, apparent lateral displacement, in the order of a several hundred metres, can be measured on certain horizons. Movement, however, could be entirely vertical with the apparent offset resulting from the regional dip of the beds.

Recent computer modelling of the airborne magnetometer data has provided a very clear understanding of the relationship of secondary conjugate sets of northeast and northwesterly faults related to the major west-northwest trending breaks.[7] These conjugate fault sets appear to relate directly to the significant mineralization at the Island Copper, Hushamu, Hep and Red Dog copper/gold deposits.

Generally, regional dip of the bedding is gentle to moderate southwesterly. Locally, in the area west of Holberg, dips are much steeper, but these are in close proximity to major faults. There is little folding or flexuring of bedding visible, except along loci of major faults where it is particularly conspicuous in thinly bedded sediments of Lower Bonanza. Bedding is generally inconspicuous in massive beds of Karmutsen, Quatsino and Bonanza rocks, particularly inland where outcrops are widely scattered.

PROPERTY GEOLOGY

The claims are underlain predominantly by a large granodiorite batholith belonging to the late jurassic coast intrusive complex. The granodiorite is generally medium grained and alteration consists of potassic alteration around potassium feldspar stringers. This potassic alteration gives the granodiorite its characteristic pink colour.

In the southwest corner of the claims, lie rocks of the Lower Jurassic Bonanza formation. These rocks consist of siliceous andesites and tuffs. Disseminated pyrite occurred up to 5% throughout these rocks.

Dominant structure in the area trends northwest, however, a pyrite rich shear zone on the southern boundary of Wanokana S.W. trends northeast.

Sulfide mineralization consisted of disseminated pyrite in the Bonanza volcanics, and a massive pyrite seam within andesites. Neither types of sulfide mineralization had any associated base or precious metal values.

GEOCHEMICAL SURVEY

A total of 17 rock samples and 11 stream sediment samples were collected on the property during the program. The stream sediments were collected with a gold pan and two screens. The stream gravel was screened and then panned down to a fine sand size and placed in a plastic bag.

The rock samples were representitive chip samples, wherever possible, taken with a geologists hammer. The rock samples were shipped to Acme Labs for crushing, grinding and analysis. Descriptions of all rock samples can be found in Appendix 1.

The samples were delivered to Acme Analytical Laboratories Ltd. in Vancouver where the silts and soils were dried and screened to -80 mesh and the rocks were crushed and powdered to -80 mesh. The samples were then analyzed for copper,lead, zinc, arsenic, and silver by I.C.P.. The I.C.P. assay involves the digestion of 0.500 grams of the sample with 3-1-2 HCl-HNO3-H2O acid at 95 degrees celsius for one hour. This sample is then diluted to 10 ml with water and analyzed. The samples were also analyzed for gold by acid leach and atomic absorbtion by Acme labs.

The 11 stream sediment samples collected showed a range in gold values from 1 to 9 ppb, and no samples were considered anomalous similarly for the remaining 5 elements analyzed for, none of the samples returned anomalous results.

The 17 rock samples failed to produce any anomalous results. In the rock samples, gold, silver, copper and zinc showed ranges of 1-24 ppb, .1-1.2 ppm, 4-111 ppm, and 4-112 ppm and arsenic and lead showed less range.

Sample locations are shown on Figure 5 and a full list of assay certificates are available in Appendix 2.

CONCLUSIONS

1.0 Reports from 1922 state a mineralized zone in the southwest corner of the claims.

2.0 The majority of the claims are underlain by granodiorite.

3.0 Rock and stream sediment samples failed to produce any significant targets.

RECOMMENDATIONS

1.0 An effort should be made to locate the mineralized zone in the southwest corner of the claims.

2.0 A grid should be established over the mineralized zone or the area where it is supposed to occur.

3.0 This grid should be soil sampled to determine the extent of the mineralized zone.

4.0 Geophysics and or trenching may assist in determining the extent of the mineralized zone.

STATEMENT OF COSTS

1.0	Personnel	
	1 Senior Geologist - .85 days @ $380/day	$ 323.00
	1 Project Geologist - 5.105 days @ $260/day	1,327.30
	1 Field Assistant - 8.3 days @ $210/day	1,743.00
	1 Draftsperson - .2 days @ $220/day	44.00
		3,437.30
2.0	Transportation	
	4x4 rental - 5 days @ $38.49/day (incl. gas)	192.43
3.0	Food and Accommodations	
	10 man days @ $10.41/man day	104.06
4.0	Assay Costs	
	11 silts 5 element ICP & geochem gold @ $9.64	106.04
	16 rocks 5 element ICP & geochem gold @ $9.64	154.24
		260.28
5.0	Supplies	
	(flagging, soil bags thread, etc.)	97.76
6.0	Office Costs	
	(telephone, photocopying, typing, etc.)	195.36
	Report - 2 days	520.00
	Drafting	205.67
Disbursement Fee		211.11
	TOTAL COSTS	**$5,223.97**

CERTIFICATE OF QUALIFICATIONS

I, Rod W. Husband, do hereby certify that:

1. I am a geologist for Daiwan Engineering Ltd. with offices at 1030 - 609 Granville Street, Vancouver, British Columbia.

2. I am a graduate at the University of British Columbia with a degree of B.Sc.,Geology.

3. I have practised my profession since completion of my degree in December 1986.

4. This report is based on work done on the property from June 12, 1989 to June 19, 1989 and information obtained from previous reports by professional engineers and others who have examined the property.

5. I have no interest in the property or shares of Exmar Resources Ltd. or in any of the companies contiguous to Wanokana South, nor do I expect to receive any.

Rod W. Husband, B.Sc.
August 24, 1989

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APPENDIX 1

Sample Descriptions

SAMPLE #	DESCRIPTION	ASSAYS Au(ppb)	Ag(ppm)	Other
109731	30 cm of 1.7 m mafic dyke with 5-10% disseminated moly.	1	.1	
109732	30 cm granodiorite highly fractured near contract zone? 2-5% disseminated pyrite.	1	1.2	
109733	15 cm fault gouge 285/55 degrees north in granodiorite clay and pyrite (5-10%).	1	.2	
109734	35 cm moderate silicified andesite few clay stringers low fractures disseminated pyrite 5%.	1	.1	
109735	30 cm moderate silicifed massive green andesite disseminated pyrite less than or equal to 5%.	2	.1	
109736	30 cm highly siliceous highly fractured v. fine aphinitic andesite minor pyrite.	3	.1	
109737	2 metre chip across part of 7 m pyrite seam grey clayey 340/90.	6	.3	
109742	30 cm highly siliceous andesite few quartz stringers coarse disseminated pyrite 5-7% (south of claims).	2	.1	
109743	30 cm highly siliceous andesite coarse pyrite 5-7% moderate-high fractured (south of claims).	5	.1	
109744	20 cm highly siliceous aphanitic and? pyrite less than or equal to 5% fine.	3	.1	
109745	35 cm pyrite-clay fault gouge 080/70 degrees north in diorite on south boundary.	6	.1	
109746	45 cm v. highly siliceous volc? Footwall of fault (109745) disseminated pyrite 7-10%.	24	.1	

SAMPLE #	DESCRIPTION	ASSAYS Au(ppb)	Ag(ppm)	Other
109747	30 cm siliceous breccia near 109746 minor less than or equal to 5% pyrite.	2	.1	
109748	20 cm siliceous andesite - low fractures pyrite rich to 20%.	13	.1	
WAN 89-01	30 cm pyrite rich shear zone.	7	.1	
WAN 89-02	35 cm very highly siliceous grandiorite adjacent to shear minor pyrite.	3	.1	
WANSM-01	Stream sediment panned down to fine sand.	3	.1	
WANSM-02	Stream sediment panned down to fine sand.	1	.1	
WANSM-03	Stream sediment panned down to fine sand.	1	.1	
WANSM-04	Stream sediment panned down to fine sand.	1	.1	
WANSM-05	Stream sediment panned down to fine sand.	1	.1	
WANSM-11	Stream sediment panned down to fine sand.	1	.1	
WANSM-14	Stream sediment panned down to fine sand.	9	.1	
WANSM-15	Stream sediment panned down to fine sand.	4	.1	
WANSM-16	Stream sediment panned down to fine sand.	1	.1	
WANSM-17	Stream sediment panned down to fine sand.	2	.1	
WANSM-18	Stream sediment panned down to fine sand.	4	.1	

APPENDIX 2

Assay Certificates

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: JUN 18 1989
DATE REPORT MAILED: June 21/89.

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 ROCK P2 SILT AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY. C. Leong. D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

DAIWAN ENGINEERING LTD. PROJECT WANOKONA FILE # 89-1572 Page 1

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
C 109731	6	2	53	.1	2	1
C 109732	19	11	41	1.2	8	1
C 109733	31	13	18	.2	19	1
C 109734	11	6	58	.1	3	1
C 109735	4	7	42	.1	2	2
C 109736	66	9	73	.1	6	3
C 109737	12	8	4	.3	3	6
C 109738	15	12	112	.1	2	1
C 109739	16	4	15	.1	6	1
C 109740	28	9	30	.1	3	1
C 109741	65	11	48	.1	4	11
STD C/AU-R	63	36	132	6.7	41	490

DAIWAN ENGINEERING LTD. PROJECT WANOKONA FILE # 89-1572 Page 2

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
WANSM-1	31	2	47	.1	4	3
WANSM-2	30	3	43	.1	5	1
WANSM-3	20	6	40	.1	4	1
WANSM-4	20	6	42	.1	2	1
WANSM-5	26	2	44	.1	3	1
WANSM-6	35	2	58	.1	4	2
WANSM-7	42	2	50	.2	7	1
WANSM-8	43	2	61	.1	6	1
WANSM-9	23	2	33	.1	2	1
WANSM-10	63	7	89	.1	3	1
WANSM-11	46	2	40	.1	7	1
WANSM-12	26	5	58	.1	10	3
WANSM-13	40	5	72	.1	8	2
STD C/AU-S	59	37	131	7.1	38	51

ORIGINALS IN WANOKAWA'S LXMAR

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED: JUN 26 1989
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716 DATE REPORT MAILED: June 30/89.

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: P1 ROCK P2 SILT AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

SIGNED BY C. Leong. D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

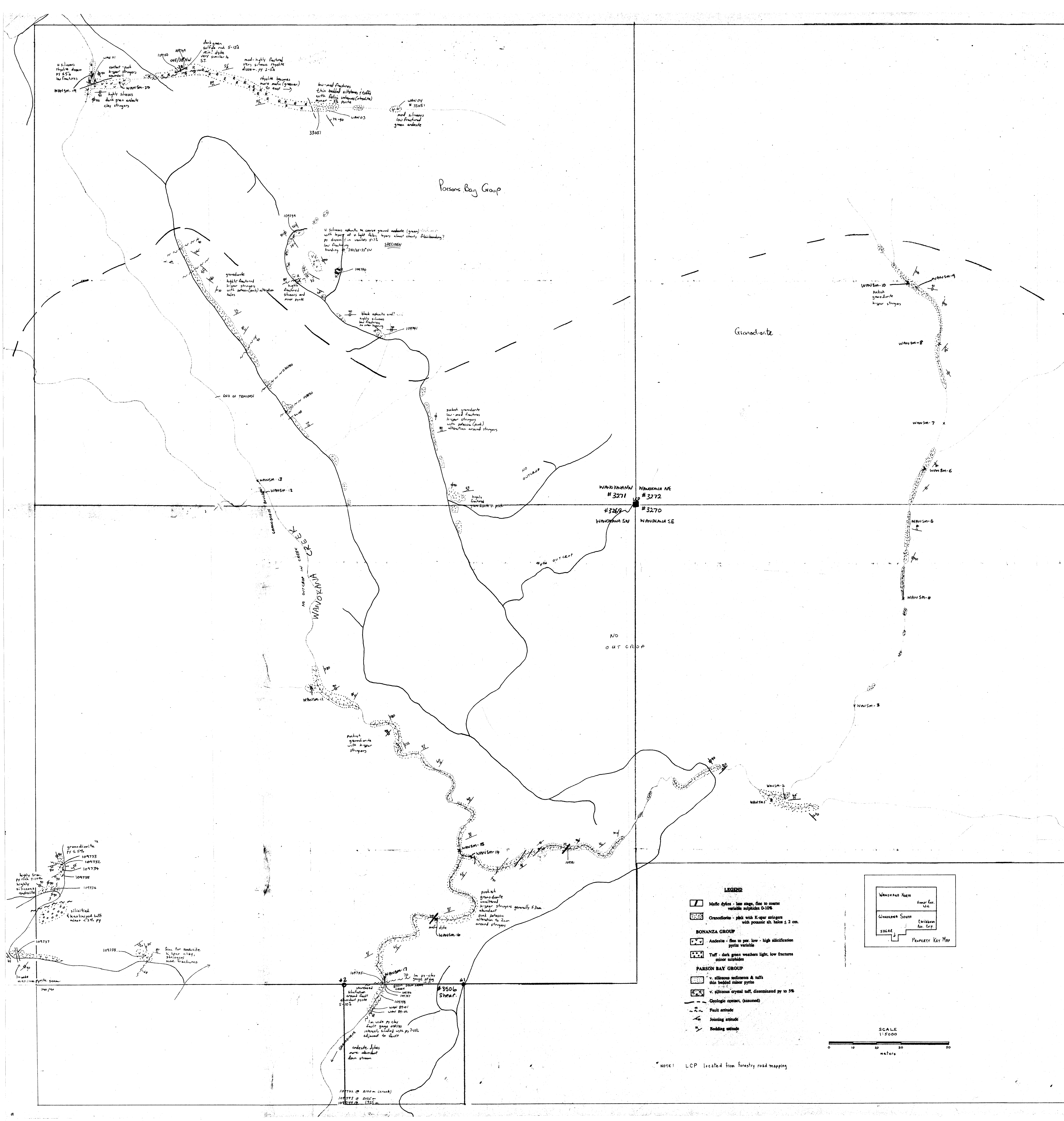
DAIWAN ENGINEERING LTD. FILE # 89-1705 Page 1

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
WAN 89-01	62	23	20	.1	2	7
WAN 89-02	23	16	10	.1	2	3
33051	66	19	134	.3	45	2
109742	14	11	33	.1	4	2
109743	44	7	22	.1	3	5
109744	27	12	38	.1	2	3
109745	24	6	7	.1	5	6
109746	111	8	10	.1	7	24
109747	10	40	85	.1	2	2
109748	39	6	10	.1	2	13
109749	47	9	97	.1	17	3
109750	2257	252	11848✓	9.0	17	4
STD C/AU-R	60	41	133	6.7	41	480

✓ • ASSAY REQUIRED FOR CORRECT RESULT •

DAIWAN ENGINEERING LTD. FILE # 89-1705 Page 2

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
WANSM-14	32	7	48	.1	7	9
WANSM-15	27	2	45	.1	6	4
WANSM-16	38	7	65	.1	8	1
WANSM-17	37	6	57	.1	7	2
WANSM-18	37	5	61	.1	4	4
WANSM-19	36	8	124	.1	27	3
WANSM-20	40	5	84	.1	11	1
STD C/AU-S	61	35	132	7.1	39	49



SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
C 109731	6	2	53	.1	2	1
C 109732	19	11	41	1.2	8	1
C 109733	31	13	18	.2	19	1
C 109734	11	6	58	.1	3	1
C 109735	4	7	42	.1	2	2
C 109736	66	9	73	.1	6	3
C 109737	12	8	4	.3	3	6
C 109738	15	12	112	.1	2	1
C 109739	16	4	15	.1	6	1
C 109740	28	9	30	.1	3	1
C 109741	65	11	48	.1	4	11
STD C/AU-R	63	36	132	6.7	41	490

SAMPLE#	Cu PPM	Pb PPM	Zn PPM	Ag PPM	As PPM	Au* PPB
WANSM-1	31	2	47	.1	4	3
WANSM-2	30	3	43	.1	5	1
WANSM-3	20	6	40	.1	4	1
WANSM-4	20	6	42	.1	2	1
WANSM-5	26	2	44	.1	3	1
WANSM-6	35	2	58	.1	4	2
WANSM-7	42	2	50	.2	7	1
WANSM-8	43	2	61	.1	6	1
WANSM-9	23	2	33	.1	2	1
WANSM-10	63	7	89	.1	3	1
WANSM-11	46	2	40	.1	7	1
WANSM-12	26	5	58	.1	10	3
WANSM-13	40	5	72	.1	8	2
WANSM-14	32	7	48	.1	7	9
WANSM-15	27	2	45	.1	6	4
WANSM-16	38	7	65	.1	8	1
WANSM-17	37	6	57	.1	7	2
WANSM-18	37	5	61	.1	4	4
WANSM-19	36	8	124	.1	27	3
WANSM-20	40	5	84	.1	11	1
WAN 89-01	62	23	20	.1	2	7
WAN 89-02	23	16	10	.1	2	3
33051	66	19	134	.3	45	2
109742	14	11	33	.1	4	2
109743	44	7	22	.1	3	5
109744	27	12	38	.1	2	3
109745	24	6	7	.1	5	6
109746	111	8	10	.1	7	24
109747	10	40	85	.1	2	2
109748	39	6	10	.1	2	13
109749	47	9	97	.1	17	3
109750	2257	252	11848✓	9.0	17	4
STD C/AU-R	60	41	133	6.7	41	480

19180

MISHIBISHU GOLD CORP.

WANOKANA PROJECT

NANAIMO MINING DIVISION, B.C.

GEOLOGY ASSESSMENT FIELD MAP

DAIWAN ENGINEERING LTD.

DATE	SCALE	FIG. NO.
NOV. '89	1 : 5,000	5