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VANCOUVER, B.C.	

GEOLOGICAL MAPPING REPORT
ON
BONANZA PROPERTY

NTS 92L/7W
NANAIMO MINING DIVISION
BRITISH COLUMBIA

FOR
INDUSTRIAL FILLERS LTD.
JULY 90

GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,362

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1.1

INTRODUCTION

At the request of Hans Achermann for Industrial Fillers Ltd., a program of prospecting and geological mapping has been completed on the Bonanza Group of mineral claims by Vanguard Consulting Ltd. The claims cover an area of fairly pure, white calcite rich limestone. The purpose of the June/July '90 program was to recognize structural trends across and to recognize potential for base/precious metal deposits on the property.

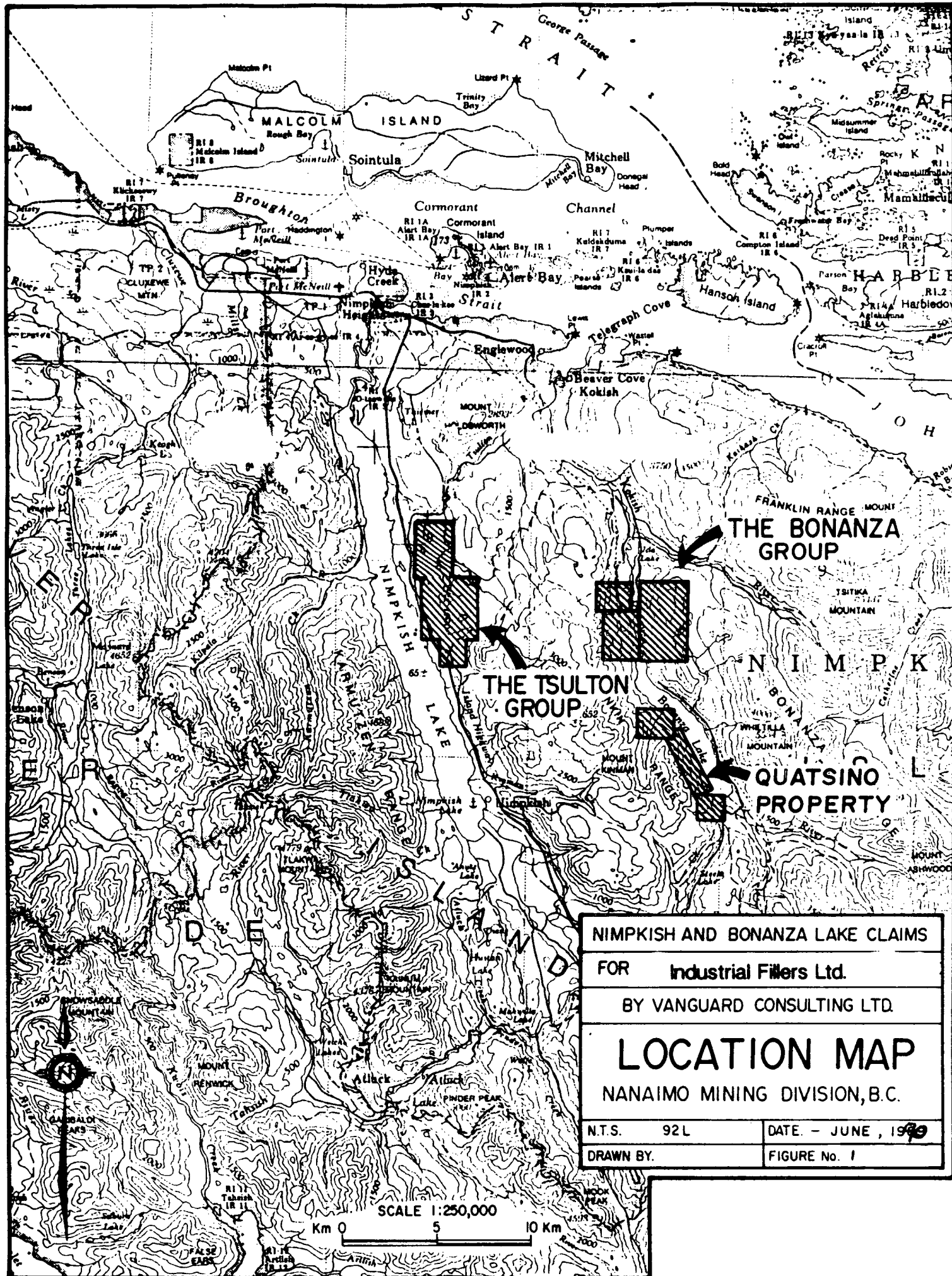
1.2

PROPERTY STATUS

The property consists of one 20 unit and one 12 unit modified-grid system mineral claims located on title map 92L/7W, in the Nanaimo Mining division. Particulars of the claims are as follows:

Claim Name	Record No.	Owner	Expiry
Bonanza 1	2773(8)	Industrial Fillers Ltd.	8 Aug./92
Bonanza 2	2774(8)	Industrial Fillers Ltd.	8 Aug./92
Bonanza 3	3022(7)	Industrial Fillers Ltd.	6 July/90
Bonanza 4	3023(7)	Industrial Fillers Ltd.	6 July/90

The claims have been grouped as the Bonanza Group. This report will be filed for assessment credit on the 3 & 4 claims.



NIMPKISH AND BONANZA LAKE CLAIMS
 FOR **Industrial Filers Ltd.**
 BY **VANGUARD CONSULTING LTD.**
LOCATION MAP
 NANAIMO MINING DIVISION, B.C.

N.T.S. 92L	DATE - JUNE, 1969
DRAWN BY.	FIGURE No. 1

SCALE 1:250,000
 Km 0 5 10 Km

1.3

LOCATION and ACCESS

The property is straddles the Bonanza River and Ida Lake, located approximately 15 km south of deep harbour at Beaver Cove, on Vancouver Island's NorthEast coast. Port McNeil, the closest supply point to the property, lies approximately 30 air-km or 40 road-km to the northwest. Port McNeil is capable of providing accommodation and other usual requirements for exploration programs.

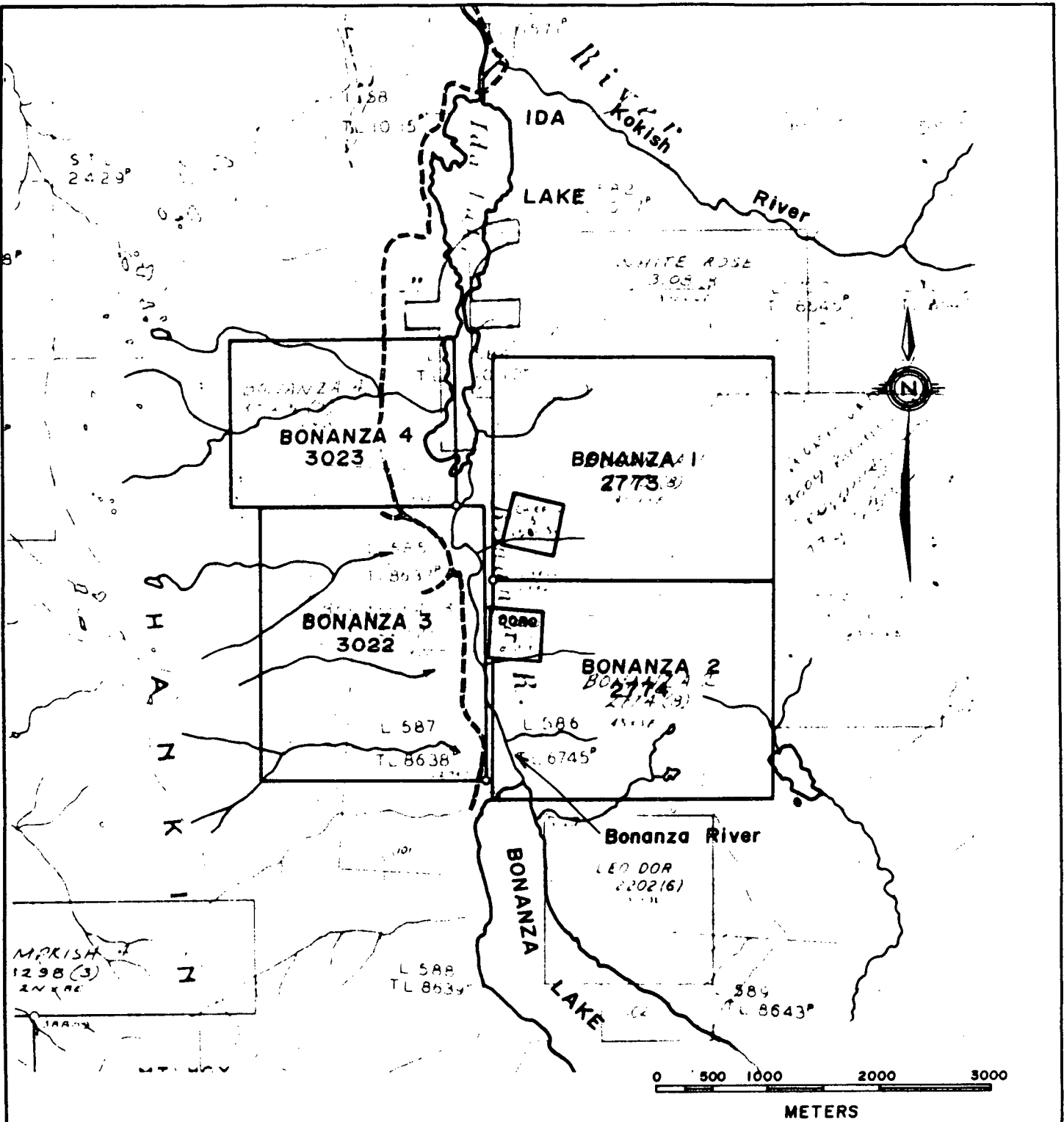
Access to the property is gained by driving "south" from Port McNeil along B.C. Highway 19 for a distance of 10 km, turning east onto the Telegraph Cove access road and then continuing along for approximately 14 km, then turning south to follow the Crown Forest Industries "Main road south" along the eastern side of the Kokish River. Main road south runs through the centre of the property between approximately 17km and 21km. A bridge crosses the River near its source at Bonanza Lake.

1.4

PHYSIOGRAPHY

The property occupies a portion of the northerly trending Hankin Range, where it forms the western wall of Bonanza River's valley. Elevations range from 320 m in the valley bottom to 880 m on the western property boundary. Lower portions of the property, below 600 m on Bonanza 3 and below 450 m on Bonanza 4, are composed of moderate slopes averaging 15°, where outcrop is limited to road cuts and occasional cliff sections. Higher elevations are steeper, averaging 30° though locally being much steeper, and here outcrop exposure is good.

The drainage pattern is an immature trellis pattern. All the major creeks had sufficient water for exploration purposes during the program but all the creeks may not run year long. The property is covered by stands of second growth fir and cedar, and



0 500 1000 2000 3000
METERS

INDUSTRIAL FILLERS LTD

BONANZA GROUP
VANCOUVER ISLAND, B.C.

CLAIM MAP
NTS 92L/7W

DATA - Vanguard Consulting Ltd	
DRAWN BY - P.H.	DATE - JUNE, 1990
SCALE - 1:50 000	FIGURE No. 2

by areas of recent logging clear cut.

The property lies within a humid section of the Coastal physiographic region. Precipitation is heavy, falling largely as rain during winter months. Snow accumulates at higher elevations.

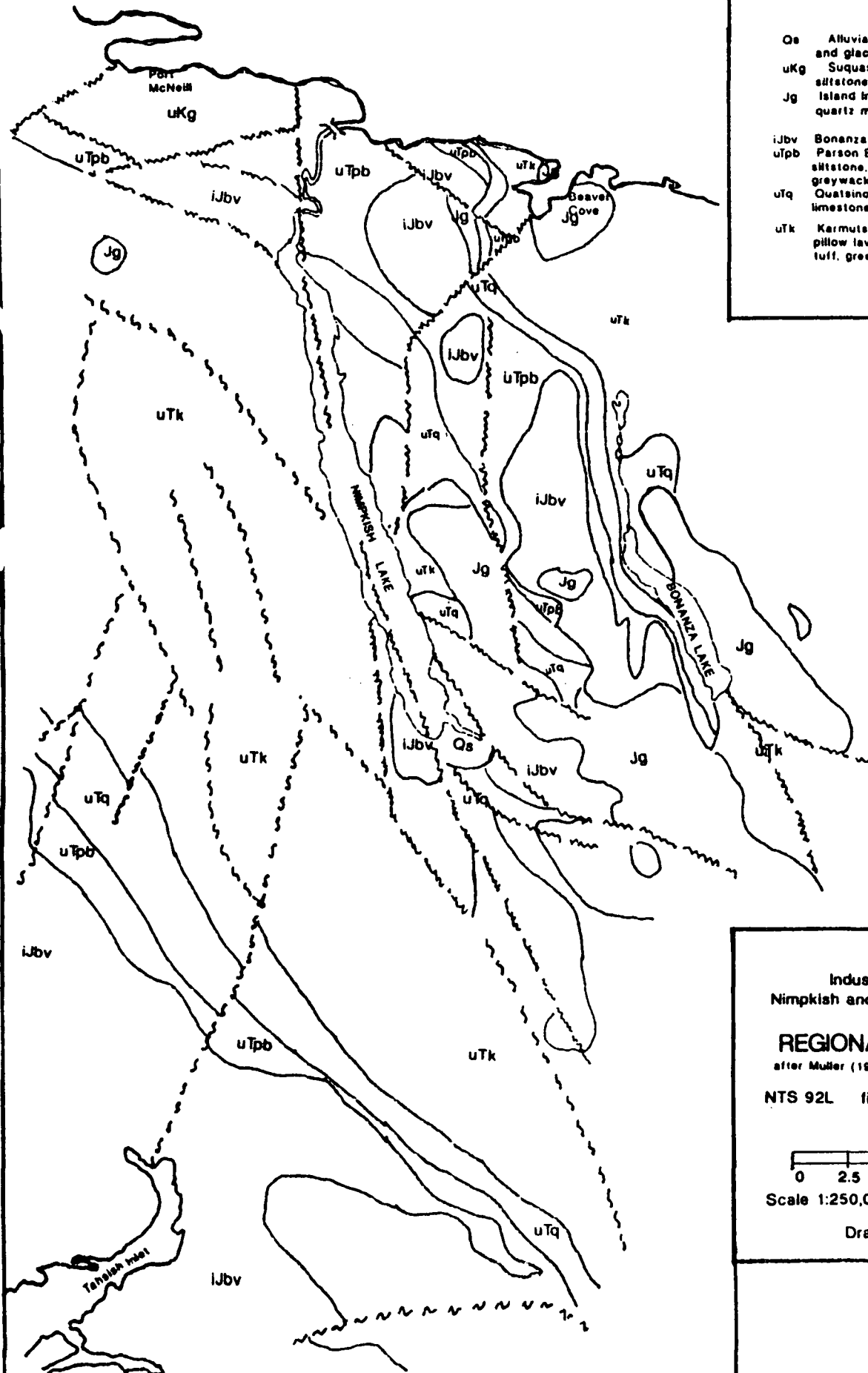
The area is primarily composed of intermediate volcanic sequences of the Karmutsen Formation conformably overlain by Quatsino Formation limestone, both being members of the Upper Triassic Vancouver Group. In some areas Triassic Parson Bay mixed sedimentary rock and, in turn, Lower Jurassic Bonanza Group intermediate to felsic volcanic rock overlies the Quatsino Formation. All of this rock trends generally to the northwest, displaying a series of broadly spaced open folds.

All of the above units have been intruded by members of the intermediate to felsic Island Intrusions of Upper Jurassic age. These intrusions are felt responsible for both skarn and hydrothermal metal deposits at numerous locations on Vancouver Island.

Major faults tend to lie sub-parallel to the fold structures, although cross-faulting has been mapped.

TABLE OF FORMATIONS

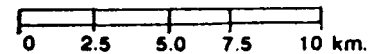
- Oa Alluvial, marine and glacial deposits
- uKg Squash Formation siltstone, shale
- Jg Island Intrusions: quartz diorite, granodiorite quartz monzonite, feldspar porphyry
- iJbv Bonanza Group: andesite, tuff, breccia
- uTpb Parson Bay Formation siltstone, shale, limestones, greywacke, conglomerate, breccia
- uTq Quatsino Formation limestone
- uTk Karmutsen Formation: basaltic lava pillow lava, breccia, aquagene tuff, greenstone, minor limestone



Industrial Filers Ltd.
Nimpkish and Bonanza Lake Claims

REGIONAL GEOLOGY

after Muller (1973) and Roddick (1980)
NTS 92L figure 3 Nanaimo M.D.



Scale 1:250,000 Date: Sept. 1988

Drawn by: E.P.C.

The property consists of Karmutsen intermediate volcanic flows which are overlain by white to black sequences of generally fine grained Quatsino limestone, in turn overlain by well bedded and locally folded sequences of dark mudstones and minor chert of the Parson Bay formation along the western edge. The units trend generally NW to NNW and dip moderately to steeply to the SW. The lower units are intruded by hornblende granodiorite of the Island intrusives in the southeastern portion of the property. Thin dykes of intermediate composition cut limestone in the area west of the granodiorite body.

A description of lithologies seen is as follows:

(Unit 1); Karmutsen volcanic, composed of buff weathering, dark green to grey, medium grained, massive flows. Occasional discrete gains of pyrite and occasional weak magnetism were noted. Portions of the contact with the Quatsino limestone is altered to silica, crystalline calcite and up to 5% fine crystalline pyrite filling fractures.

(Unit 2); White Quatsino limestone, referred to in 1988 reporting as Lower limestone. The unit is black or buff weathering, fine to medium grained, massive, white to light gray in colour and calcite rich. In the central (lower) area of the property the unit is coarser grained, being composed of intergrown and poorly formed calcite crystals that include patches of opaque to light gray colour which powder white. Light gray beds were also seen in the finer grained areas, but their continuity could not be established because of poor outcrop exposure. Streaks of limonite and goethite were occasionally noted.

(Unit 3); Grey Quatsino limestone, referred to as Upper limestone in 1988 reporting; Unit 3 is intercalated with Unit 2

near their contact. The unit is fine grained, light to dark grey and calcite rich, being distinguished from Unit 2 by colour and by grain size. Unit 3 is always found to be fine grained and powders off white in colour. The contact between beds of Unit 2 and Unit 3 are sharp and appear to relate to original bedding.

(Unit 4); Black, white weathering, very fine grained limestone. In places it contains material relating to the clastic sediments referred to as Unit 5 below and is probably a gradational rock between the two. Powders grey. May represent a lower unit of the Parsons Bay formation in regional stratigraphy.

(Unit 5); Black, well bedded mudstones, and occasional chert. Buff to orange weathering, fine grained, well bedded black clastic sediments. Bedding planes often show smears of pyrite, particularly close to the lower contact. Pyrrhotite also seen in the area of chert horizons. Chert beds are light greyish green, fine grained in beds up to three metres in thickness. Occasional pyrite and pyrrhotite. The unit has undergone soft sediment deformation and in areas chevron folding was noted. Unit trends generally to the northwest.

(Unit 6); Island intrusive. Equigranular, medium grained, hornblende granodiorite.

(Unit 7); Intermediate dykes. Dark green, fine grained, pyritic intermediate dykes. The dykes trend northwesterly and are concentrated in the southeastern part of the property but have been seen elsewhere.

An examination was made of pyrite enriched and cherty areas in the Parsons Bay formation, and of hydrothermal alteration along the Karmutsen/Quatsino contact (samples PBR 001-006). No results of economic interest were returned.

Areas of white stone on either side of the Bonanza river were examined in order to better detail the structural makeup of the property. Some areas of andesite flow were mapped on the east side of the river along the main road, indicating that this section is lower in the stratigraphy than had been previously assumed. There is evidence of broad open folding which accounts for the bulk of the variations in measurable attitudes. The overall trend of the lithologies is to the northwest with a dip of 10 - 15° to the southeast; this overall trend extends for the breadth of the property and there is no indication that the Bonanza River - Ida Lake valley mirrors underlying rock structures.

Faults trending easterly are the youngest features on the property. A major fault running across the entire property, roughly near the half way point between Bonanza and Ida lakes, has dropped the southern block by some tens of metres. A lack of outcrop in the lower portions of the property make accurate measurement difficult.

Lack of outcrop on the lower slopes west of Bonanza River (Bonanza 3 claim) renders an assessment of the white stone in this area difficult without trenching. Samples PBC 201 and 202 taken from, respectively, grey and white beds near the top of unit 2 do not indicate a chemical association for the colour change. Comparison of these samples to samples PBC 203 and 204, which were taken in recrystallized white stone lower in the section indicate a slight decrease in calcium carbonate and a slight increase in silica moving up section.

CONCLUSIONS

No further examination is recommended with regard to base/precious metal deposition on the Bonanza 3 or 4 claims.

A left lateral westerly trending fault appears to cut the middle of the property. This and smaller parallel faulting will be the major detriment in determining mining block size during detail work, but should not hamper preliminary drill assessments.

Detail mapping can be accomplished efficiently by grid emplacement in the southern half of the property. In the northern half of the property greater detail is required but the rock of interest is in steeper ground and would therefore be more costly to investigate.

Preliminary drilling in the southern of the claim can be accomplished from the existing road base. The applicable road requires brushing but has a solid roadbed. Water could be drawn from a nearby creek.

REFERENCES 4.1

- | | | |
|----------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------|
| Brown, H.J. | June 1984 | Geology of the Port McNeill(sic) Quarry Area MAP ONLY; Private report. |
| Coffin, D.J.
Soux, C. | Sept 1988 | Diamond Drill Program Report on Bonanza Property; for Industrial Fillers Ltd. |
| Coffin, D.J. | July 1989 | Geological Mapping Report of Bonanza 3 & 4 Mineral Claims for Industrial Fillers Ltd. |
| Gunning, D.F. | May 1980 | Assessment Report....Claims IMA4 and IMA5, Nanaimo Mining Division; International Marble & Stone Co. Ltd. |
| Gunning, H.C. &
Hoadley, J.W. | 1929/31
1952 | Geology of Nimpkish Map Sheet @ 1" = 1 mile; GSC map 1029A |
| Muller, J.E. &
Roddick, J.A. | 1973 | Geology of Alert Bay - Cape Scott @ 1:250,000; GSC map 1552A |

APPENDIX A

COST BREAKDOWN

COST BREAKDOWN

Personnel:

David Coffin, 7 days @ \$325.00	\$ 2,275.00
Michael Renning: 5 days @ \$225.00	1,125.00
Subtotal:	<u>\$ 3,400.00</u>

Expenses:*

Sample analyses (ICP and Whole Rock)	\$ 223.23
Meals and Accommodations	527.30
Vehicle rental and fuel	444.82
Airphotos, drafting and printing	192.25
Long distance charges	63.10
Subtotal:	<u>\$ 1,450.70</u>
15% management fee on expenses	217.61
Total Expenses	<u>\$ 1,668.31</u>

TOTAL COSTS: \$ 5,068.31

* Programs were carried out consecutively on the Bonanza and Quatsino Properties. Expenses for both projects were totalled and applied pro rata to each property, 7/12 as to the Quatsino Property and 5/12 as to the Bonanza Property.

APPENDIX B

CERTIFICATE

I David Coffin of Vancouver, B.C. certify:

- 1) I am a consulting explorationist with the firm of Vanguard Consulting Ltd. at 706-675 W.Hastings St., Vancouver, B.C.
- 2) I attended the Haileybury School of Mines, Ontario, in the department of Mining Technology, from 1975 to 1976.
- 3) Since 1974 I have worked in a variety of jobs in the Canadian mineral exploration field including regional and detailed prospecting, detailed geological mapping, core logging, property management and program development.
- 4) This report is based upon field work conducted by myself during the period June 22 to July 02, 1990.
- 5) I hold no interest in the property or its owner.

.....
David Coffin

APPENDIX C

ANALYTICAL RESULTS

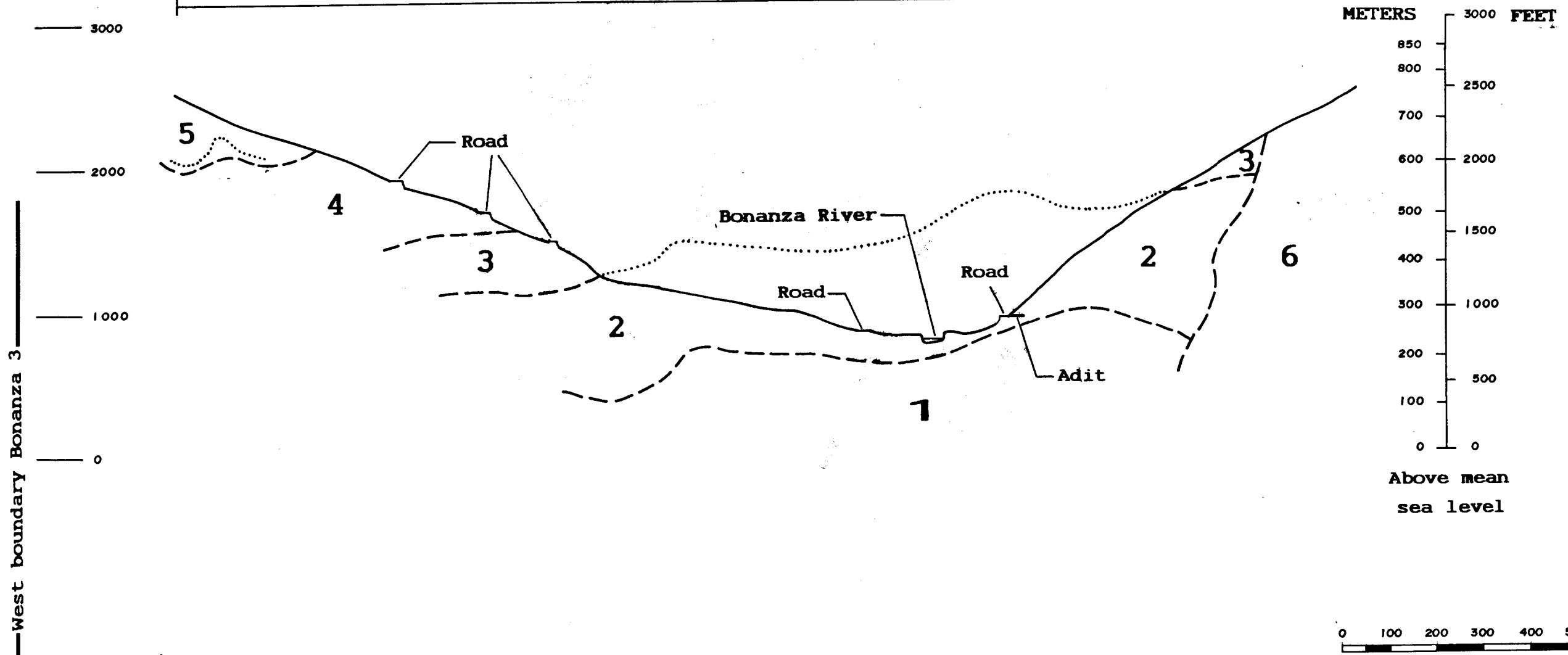
COMP: VANGUARD CONSULTING LTD.
 PROJ: BONANZA
 ATTN: DAVID COFFIN

MIN-EN LABS — ICP REPORT
 705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
 (604)980-5814 OR (604)988-4524

FILE NO: OV-0835-RJ2
 DATE: 90/07/10
 * ROCK * (ACT:F31)

SAMPLE NUMBER	AG PPM	AL PPM	AS PPM	B PPM	BA PPM	BE PPM	BI PPM	CA PPM	CD PPM	CO PPM	CJ PPM	FE PPM	K PPM	LI PPM	MG PPM	MN PPM	MO PPM	NA PPM	NI PPM	P PPM	PB PPM	SB PPM	SR PPM	TH PPM	U PPM	V PPM	ZN PPM	GA PPM	SM PPM	W PPM	CR PPM	AU PPM
PBR 001	.4	11090	3	2	61	.1	4	8070	.1	9	44	30520	910	6	7600	133	5	330	24	590	19	1	31	1	1	23.4	97	1	1	1	28	5
PBR 002	1.0	59920	1	3	46	.3	5	22320	.1	28	98	55560	290	38	48970	603	1	2470	26	1280	11	1	109	1	1	256.3	79	1	3	5	136	10
PBR 003	.5	12000	1	1	66	.1	6	8020	.1	5	12	25300	1080	6	6020	916	1	570	1	910	18	1	5	1	1	7.5	47	1	1	1	51	5
PBR 004	1.2	28810	1	2	42	.1	9	11000	.1	24	109	43580	480	16	32430	527	1	1650	85	540	11	1	58	1	1	100.6	34	1	3	2	73	5
PBR 005	1.9	25200	1	4	17	.1	14	13970	.1	27	117	56020	380	13	20380	623	1	800	14	690	11	1	37	1	1	145.7	36	1	1	2	17	5
PQC 103	3.0	420	69	1	5	.1	8	232590	.1	2	10	3710	90	1	1740	42	1	60	3	220	31	6	490	1	1	7.1	5	4	1	1	16	5
PQC 104	6.9	4730	29	1	1	.1	1	84380	.1	22	8636	26000	60	1	670	551	1	40	94	70	32	9	1	1	1	9.3	27	1	1	1	19	220
PQC 105	1.4	2580	30	5	4	.1	3	74860	.1	28	376	114260	90	1	2590	1866	1	50	1	90	23	1	1	1	1	7.4	9	1	1	1	1	550
PQR 001	.7	8720	5	1	29	.1	4	14880	.1	7	211	15900	490	2	1520	223	1	1090	10	1760	17	1	59	1	1	9.2	39	1	1	1	51	20
PTC 001	1.0	41420	1	2	119	.1	7	19100	.1	15	31	40260	2730	21	28310	18	1	5600	1	970	18	1	646	1	2	55.7	9	1	1	1	6	5
PTC 002	1.8	32010	3	2	44	.1	10	54310	.1	15	30	37470	820	15	23010	49	1	2830	1	840	18	1	512	1	1	51.3	7	1	1	1	14	10
PTC 003	.1	3090	1	12	1	.1	1	18920	.1	59	512	359250	180	1	2050	521	1	160	1	10	11	1	1	1	1	4.4	8	1	1	1	1	5
PTC 004	1.0	23600	1	3	8	.1	7	51730	.1	16	168	64030	340	2	2780	901	1	1170	111	230	22	1	50	1	1	50.5	7	1	1	2	65	5
PTC 005	2.9	360	59	1	1	.1	6	4710	.1	6	8	42020	210	3	160	59	1	40	14	10	24	3	1	4	6	3.6	2	3	1	1	1	5
PTR 001	2.7	40570	1	8	28	.1	17	49440	.1	17	19	54280	1350	15	29760	639	1	6060	1	760	32	1	526	1	1	88.6	36	1	2	1	14	5
PTR 002	2.5	66380	1	2	20	.1	18	48460	.1	19	42	36370	510	8	5720	98	1	4890	1	970	22	1	1213	1	3	52.3	7	1	2	1	20	5

90A Looking 340° 90A'

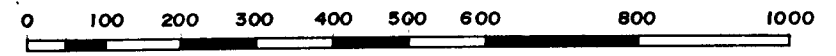


GEOLOGICAL BRANCH
ASSESSMENT REPORT

20,362

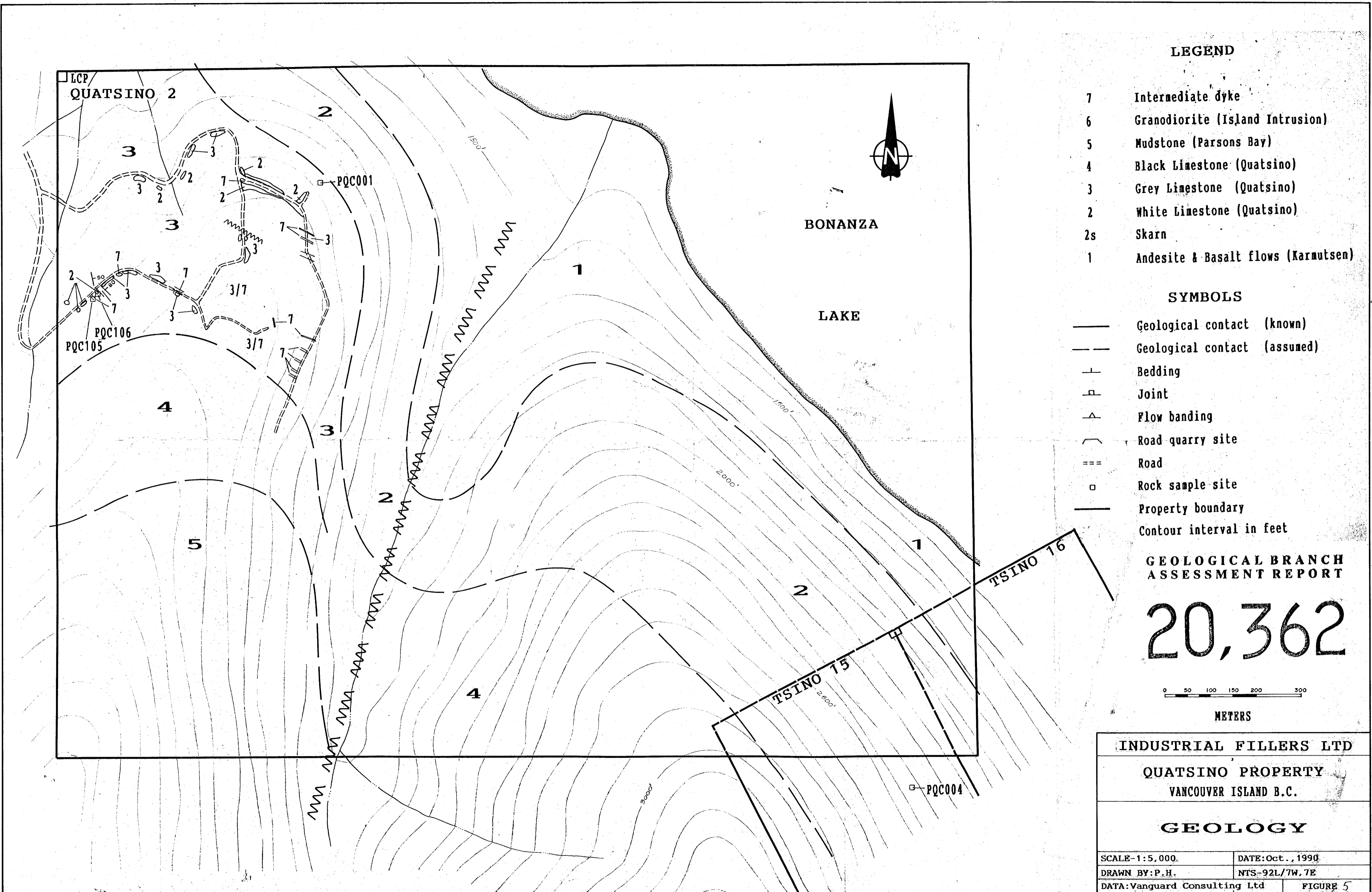
Notes:

Sub-Surface contacts are from broadly drawn features
For legend see figure 4



Assessment Report # 20362

INDUSTRIAL FELLERS LTD	
BONANZA PROPERTY	
SECTION 90 A-A'	
Scale-1:10,000	Date:Oct., 1990
	NTS-92L/7W
Drawn by:P.H.	FIGURE 5



LEGEND

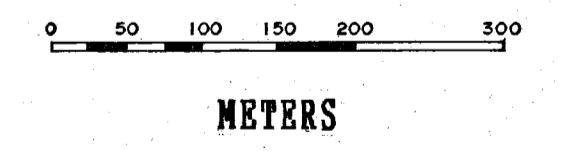
- 7 Intermediate dyke
- 6 Granodiorite (Island Intrusion)
- 5 Mudstone (Parsons Bay)
- 4 Black Limestone (Quatsino)
- 3 Grey Limestone (Quatsino)
- 2 White Limestone (Quatsino)
- 2s Skarn
- 1 Andesite & Basalt flows (Karnutsen)

SYMBOLS

- Geological contact (known)
- - - Geological contact (assumed)
- ┆ Bedding
- ⊥ Joint
- △ Flow banding
- ⌒ Road quarry site
- === Road
- Rock sample site
- Property boundary
- Contour interval in feet

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

20,362



INDUSTRIAL FILLERS LTD	
QUATSINO PROPERTY	
VANCOUVER ISLAND B.C.	
GEOLOGY	
SCALE-1:5,000.	DATE:Oct., 1990.
DRAWN BY:P.H.	NTS-92L/7W.7E
DATA:Vanguard Consulting Ltd	FIGURE 5



LEGEND

- OB Overburden
- 7 Intermediate dyke
- 6 Granodiorite (Island intrusive)
- 5 Mudstone (Parsons Bay)
- 4 Black limestone (Quatsino)
- 3 Grey limestone (Quatsino)
- 2 White limestone (Quatsino)
- 2s Skarn
- 1 Andesite & basalt flows (Karmutsen)

SYMBOLS

- Geological contact (known)
- Geological contact (assumed)
- Bedding
- Joint
- Air photo linear (fault?)
- Road quarry site
- Road
- Hydro line
- Rock sample site
- Property boundary

0 100 200 300 400 500 600 800 1000

METERS

INDUSTRIAL FILLERS LTD

BONANZA PROPERTY
VANCOUVER ISLAND, B.C.

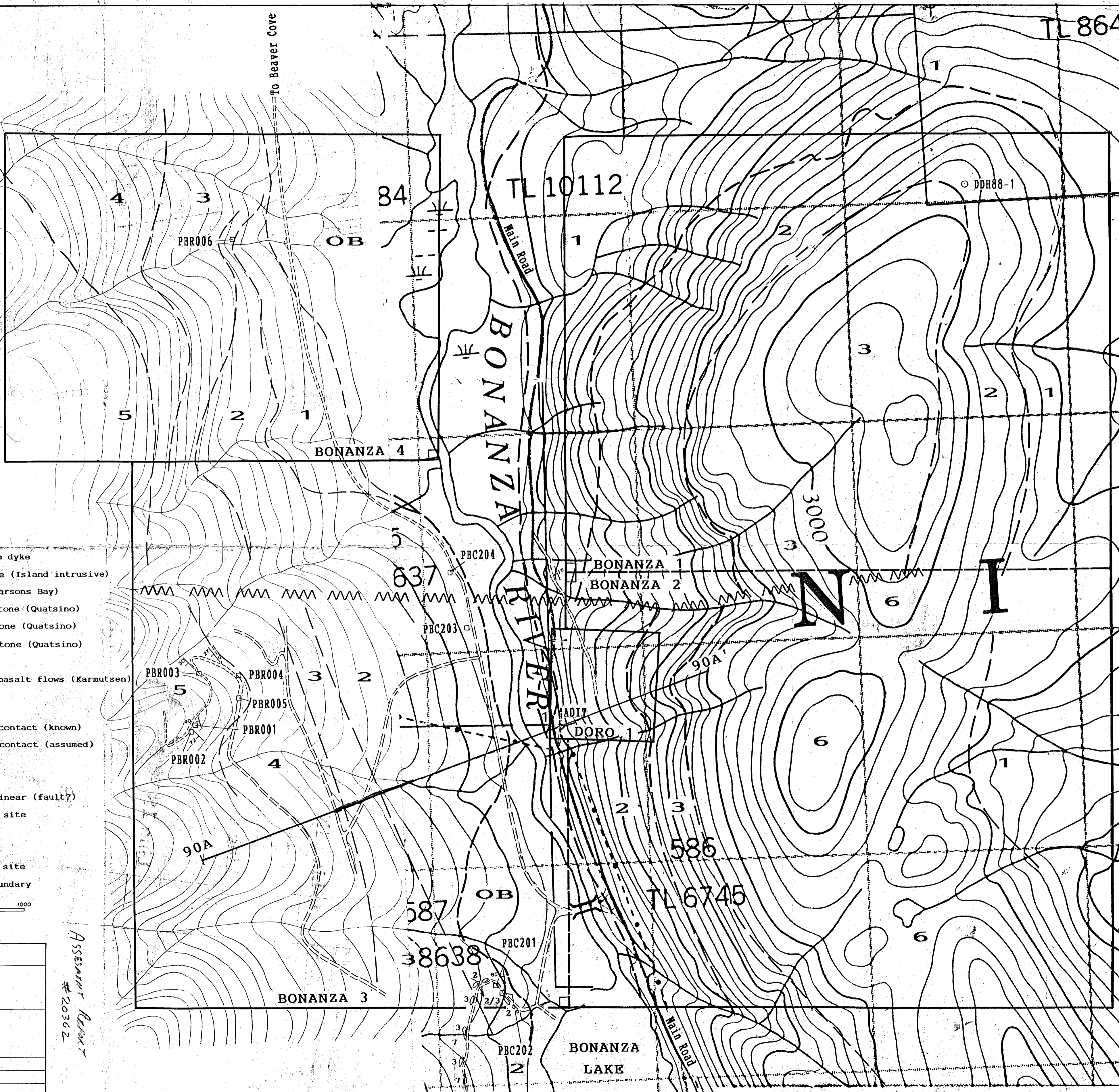
GEOLOGY
&
SAMPLING

Scale-1:10,000 Date: Oct., 1990

NTS-92L/7W

Drawn by: P.H. FIGURE 4

*Assessment Report
#20362*



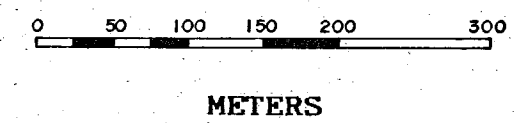
20,362

LEGEND

- 7 Intermediate dyke
- 6 Granodiorite (Island Intrusion)
- 5 Mudstone (Parsons Bay)
- 4 Black Limestone (Quatsino)
- 3 Grey Limestone (Quatsino)
- 2 White Limestone (Quatsino)
- 2s Skarn
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SYMBOLS

- Geological contact (known)
- - - Geological contact (assumed)
- ┆ Bedding
- ▣ Joint
- △ Flow banding
- ⌒ Road quarry site
- === Road
- Rock sample site
- Property boundary
- Contour interval in feet



INDUSTRIAL FILLERS LTD	
QUATSINO PROPERTY VANCOUVER ISLAND, B.C.	
GEOLGY	
SCALE-1:5,000	DATE: Sept., 1990
DRAWN BY: P.H.	NTS-92L/7W, 7E
DATA: Vanguard Consulting Ltd	FIGURE 4

