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VANCOUVER, B.C.

**DRILLING AND SAMPLING  
REPORT**

on the

**1990 EXPLORATION OF THE LAREDO CLAIMS**

Skeena Mining Division  
British Columbia

Latitude 52°42'

Longitude 129°03'

NTS 103 A/11 E

CLAIM GROUP	NUMBER OF CLAIMS	NUMBER OF UNITS
Laredo 2	4	15
Owner and Operator	LAREDO LIMESTONE LTD. 212-409 Granville St. Vancouver, B.C., V6C 1T2	
Consultant	DOLMAGE CAMPBELL LTD. 1970-1055 West Hastings St. Vancouver, B.C. V6E 2E9	

February 28, 1992  
Vancouver, B.C.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**22,189**

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## 1.0 EXECUTIVE SUMMARY

During the month of December 1990 Laredo Limestone completed one additional drill hole and obtained seven core samples and 24 surface samples from Area 3, between Areas 1 and 2. This work confirmed the continuity of limestone along the strike and dip of the limestone beds, thus allowing the upgrading of a considerable amount of the reserves previously categorized as probable to proven and enhancing the overall reserve tonnage.

The estimated reserves of these three areas to the depths investigated are tabulated below:

### ESTIMATED LIMESTONE RESERVES

Area	Elevation	Class	High Calcium Limestone Tonnes (x10 <sup>6</sup> )	Limestone Tonnes (x10 <sup>6</sup> )	Total Tonnes (x10 <sup>6</sup> )
1	20m	Proven <sup>(2)</sup>	8.00	1.50	9.50
2	80m	Proven	8.25	3.00	11.25
3	50m	Proven	-	8.00	8.00
Total Proven Reserves			16.25	12.50	28.75
1	20m	Probable <sup>(3)</sup>	8.00	2.00	10.00
2	80m	Probable	11.25	18.75	30.00
3	50m	Probable	1.25	2.00	3.25
Total Probable Reserves			20.50	22.75	43.25
Total Proven and Probable Reserves			36.75	35.25	72.00

## 2.0 INTRODUCTION

### 2.1 GENERAL

The Laredo property, owned and operated by Laredo Limestone Ltd. with offices at 212-409 Granville St., Vancouver, B.C., is located on Aristazabal Island (Figure 1) on the north coast of British Columbia. It is largely underlain by carbonate rocks of the Alexander Terrane striking north by northwest and dipping 30° to 50° to the southwest.

Work by previous operators and by Laredo Limestone in 1989 delineated estimated reserves of limestone in the order of 60,000,000 tonnes including 35,000,000 tonnes of high calcite (>95% CaCO<sub>3</sub>) limestone. In order to prove up consistency in grade with depth and to prove up additional tonnages it was necessary for Laredo to complete an additional deeper drill hole and surface sampling between the two areas with known reserves.

This report presents the results of the work completed in December 1990.

### 2.2 PROPERTY AND OWNERSHIP

The Laredo property, owned by Laredo Limestone Limited, consists of the following mineral claims:

Laredo 1	12
Laredo 2	20
Laredo 3	12
Laredo 4	1
Laredo 5	1
Laredo 6	1

The configuration of these claims is shown in Figure 2. The cost of the currently reported work is to be applied to Laredo 2 group consisting of the Laredo 3, 4, 5 and 6 claims totalling 15 units.

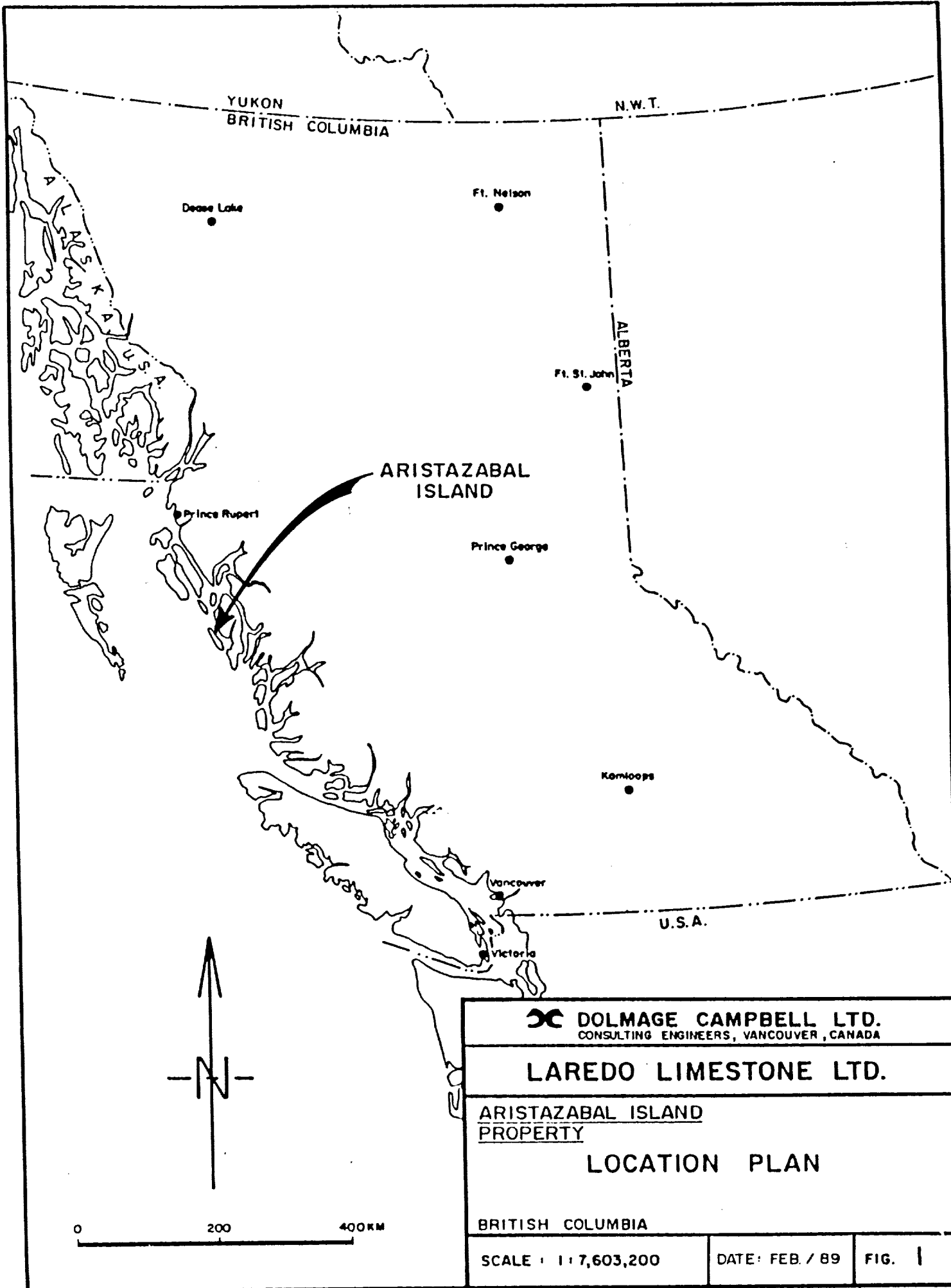
### 2.3 LOCATION AND ACCESS

The Laredo property is located on Aristazabal Island on the north coast of British Columbia. The property is situated at Latitude 52° 42' north and Longitude 129° 03' west in the Skeena Mining Division, approximately half way between Bella Bella and Prince Rupert (Figure 1).

Access to the site can be gained by air from Bella Bella (90 km) and Port Hardy (250 km) or by water from Bella Bella.

### 2.4 TOPOGRAPHY

The topography of the property is generally a hummocky plateau with little to moderate relief ranging from sea level to a maximum elevation of approximately 150 metres. On a local scale, the topography is rugged with possible karstic collapse areas surrounded by near vertical cliffs 5 to 10 metres in height.



**DC DOLMAGE CAMPBELL LTD.**  
 CONSULTING ENGINEERS, VANCOUVER, CANADA

**LAREDO LIMESTONE LTD.**

ARISTAZABAL ISLAND  
PROPERTY

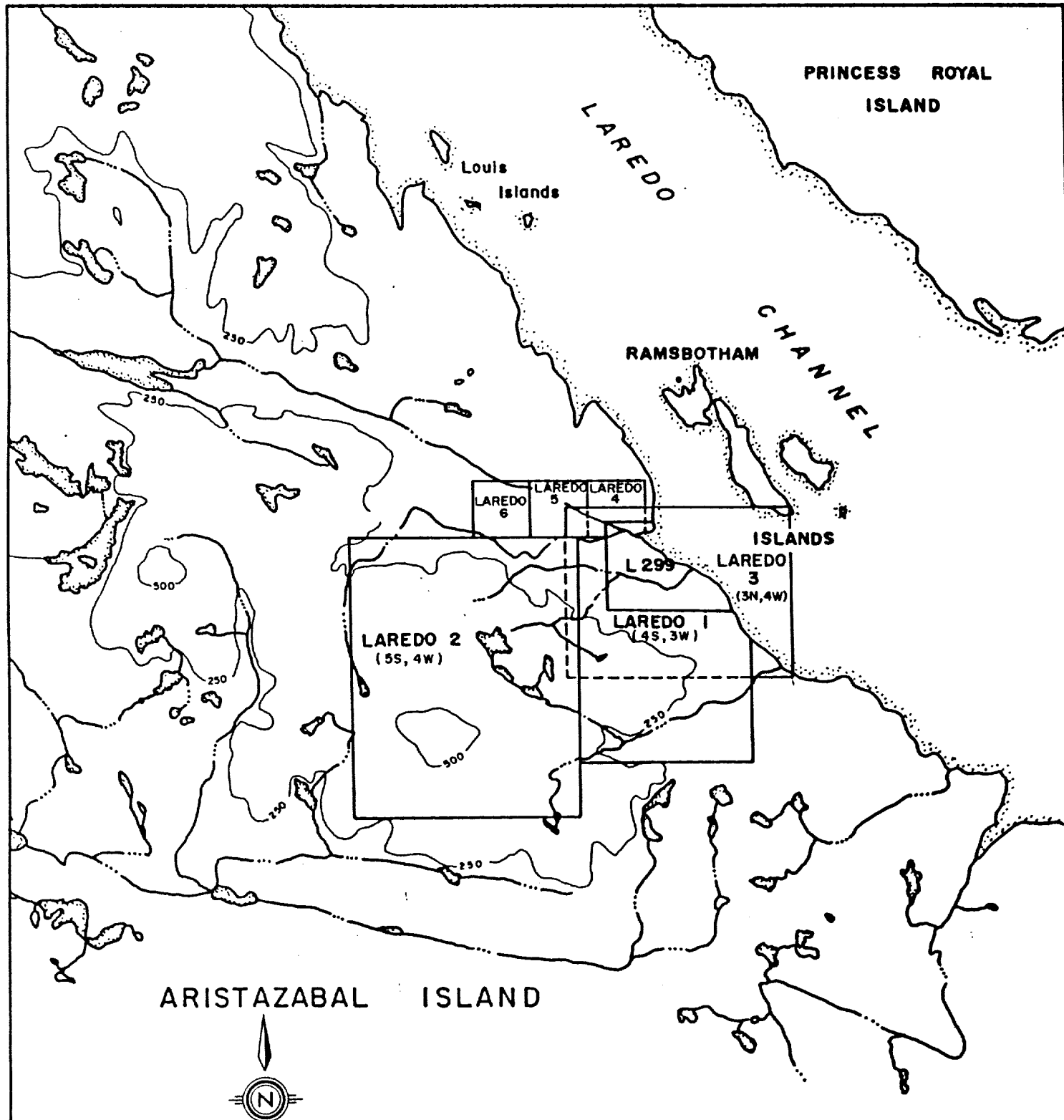
**LOCATION PLAN**

BRITISH COLUMBIA

SCALE : 1 : 7,603,200

DATE : FEB. / 89

FIG. 1




ARISTAZABAL ISLAND



SCALE



 <b>DOLMAGE CAMPBELL LTD.</b> CONSULTING ENGINEERS, VANCOUVER, CANADA		
<b>LAREDO LIMESTONE LTD.</b>		
<u>ARISTAZABAL ISLAND</u> <u>PROPERTY</u>		
<b>LAREDO PROPERTY MAP</b>		
SCALE : 1 : 50,000	DATE : Nov. 25, 1989	FIG. : 2

Numerous small lakes and ponds occur on the upper flats at approximately 80 metres elevation and the property is traversed by major creeks at the southerly and northerly limits of the claims.

In addition, numerous dry valleys and two creeks which disappear into the limestone were noted during the sampling program.

## 2.5 HISTORY

In 1899, a quarry license was obtained for Lot 299 on Aristazabal Island for the quarrying of limestone. Two quarries have been worked at different times and records indicate that in 1954 12,000 tons of high quality limestone (98 to 99% CaCO<sub>3</sub>) were shipped to a pulp mill at Prince Rupert.

The property was re-examined in 1962 by Dr. Campbell who emphasised the consistent purity of the limestone.

In 1969, Dr. Fawley directed additional surface sampling and five X-ray holes were drilled to depths of 40 to 300 feet.

In 1983, control of the property was obtained by Laredo Limestone Ltd. In 1984, the reserves of limestone were re-assessed by Mr. Tribe who conducted a sampling and mapping program in and around the existing quarries for Laredo Limestone Ltd.

In November 1988, Laredo Limestone Ltd. (Laredo) staked two mineral claims: Laredo 1 and Laredo 2, comprising 32 units.

In January 1989 Laredo completed a reconnaissance mapping and surface sampling (43 composite chip samples) and line cutting (5,000 metres) program and in April/May 1989 completed a diamond drilling and sampling program consisting of eleven AX holes totalling 304.5 metres and forty six chip samples. An additional 5,800 metres of line cutting was also completed to aid in surface sampling and mapping.



## 3.0 GEOLOGY

### 3.1 REGIONAL GEOLOGY

#### 3.1.1 Lithology

Aristazabal Island is located at the western contact of the Mesozoic intrusive masses of the Coast Plutonic Complex and sediment dominated Paleozoic, and older, rocks of the Alexander Terrane.

Carbonate rocks within this area, are likely to be Silurian or older in age and are underlain by granitoid gneiss and overlain by mafic volcanics, now metamorphosed to amphibolitic gneiss (Roddick, 1970, Baer, 1972). Regionally, the occurrence of pure limestone units is extremely limited. Typically, carbonates are thinly interbedded with quartz rich and argillaceous sediments, and unlikely to form high quality limestone. The limestone of Aristazabal Island appears to be the exception to this general trend in that it is free from significant clastic sedimentary contaminants.

#### 3.1.2 Structural Geology

A north by northwest structural grain is predominant within the project area. A northwest striking dextral fault, the Principe-Laredo Fault, projects through Laredo Channel and forms the dominant structural feature in this area. Strike relations of supracrustal rocks are subparallel to this structure, trending southeastward and dipping 30° to 50° southwesterly. Bedding attitudes are locally contorted due to the inherent ductility of the carbonate units and to the intensity of regional, upper greenschist - lower amphibolite, metamorphism. Tight isoclinal northwest trending folds are documented within sediments at the regional scale and are suggested to be the oldest deformation structures in the map area, (Roddick, 1970).

### 3.2 PROPERTY GEOLOGY

Three principle rock units are identified on the Laredo Limestone property, (Fig. 3). Most of the claim group is underlain by homogeneous, white coarse grained limestone. This carbonate unit has the appearance of a limestone roof pendant bounded by intrusive rocks.

A pronounced west-northwest-trending drainage system into Quarry Bay defines a faulted diorite-limestone contact to the north. A second major drainage system on the property, located in the southeast corner, follows along another faulted intrusive-limestone contact. South of this drainage, moderately foliated hornblende granodiorite is abruptly juxtaposed against the Aristazabal Limestone, (Fig. 3). Contact relations on the western margins of the property are not as well defined. Approximately 2.5 kilometers west of the main (south) quarry, interdigitated granodiorite-limestone contacts predominate. The main granodiorite intrusive mass is likely to lie west of L10W.

#### 3.2.1.1 Limestone

Much of the claim group is underlain by medium to coarse grained limestone. The rock weathers grey to buff but on the fresh surface is typically white and occasionally streaked with thin discontinuous grey interbeds. Grey limestone interbeds are estimated to comprise less than 10 percent of the volume of the Aristazabal Limestone.

The samples along the six traverse lines across the property indicate a general homogeneity and purity of the limestone that is a distinctive feature of this deposit. None of the specimens collected contain micas or phyllosilicates, calc-silicates or silica rich interbeds. Very limited sulphide contamination, less than 0.5% pyrite, may occur near the major intrusive contacts. Weakly disseminated pyrite was noted in the southeast corner of the map area. No evidence for widescale silica, alumina or iron contamination of this carbonate unit has been found.

### 3.2.1.2 Diorite-Diabase Dykes

Local, fine grained mafic dykes occur within limited areas of the limestone unit. Contact relations suggest more than a single stage of dyke emplacement. Volumetrically, these intrusive units are generally not significant. A shoreline traverse between the north and south limestone quarries indicates that mafic dykes account for approximately 4 percent of the total rock volume. This compares to the estimate from previous diamond drilling on the property (Fawley, 1969).

Dykes, generally less than 5.0 meters in true thickness, display well developed chilled contacts and are preferentially orientated subparallel to the bedding. A subordinate dyke set locally truncates both bedding and older dykes at high angles. These intrusive bodies are locally boudinaged and deformed into tight southwest-plunging fold structures.

### 3.2.1.3 Granodiorite

Moderately foliated hornblende granodiorite forms the dominant rock unit on the extreme southern and western portions of the map area. Planar fabric development is relatively weak and foliation measurements are difficult to obtain. This medium crystalline intrusive appears to be generally homogeneous, does not show widespread quartz veining and lacks significant sulphide or oxide development. Granodiorite exposures occur most commonly on selected topographic highs in the western portions of the property.

## 3.2.2 Structural Geology

Within the boundaries of the property only general trends have been identified by the mapping completed to date. The massive nature of the limestone precludes an accurate determination of the attitude of the limestone with existing data.

#### 4.0 1990 FIELDWORK

During December, 1990 one additional drill hole was drilled to a depth of 37.2 m (Fig. 4) from which seven samples were obtained. In addition 24 chip samples were obtained from the surface. The locations of the drill hole and samples is given in Figure 4.

Most of the drilling and camp gear were left on site from the 1989 drilling program. Additional equipment and supplies were flown to Klemtu by Beaver and thence from Klemtu to camp by helicopter.

Support for the site was provided by helicopter from Bella Coola.

All personnel were mobilized to Bella Bella via Waglisla Airlines. From Bella Bella project geologist and drillers travelled to the site by Beaver.

All personnel were demobilized by helicopter to Klemtu, thence by Beaver to Shearwater and a scheduled run from Shearwater to Vancouver via Waglisla Airlines.

All of the supplies and camp gear were left on site for future work.

## 5.0 SAMPLING

### 5.1 SAMPLING PROCEDURES

During the course of the work standard methods were used to collect samples for analytical purposes.

Surface samples were collected by chipping golf ball sized chips from outcrops at approximately 4 to 5 metre intervals along the sample line. These chips were taken only from limestone but unsampled intervals were noted in the sample log, (Appendix II). Unless otherwise specified, each composite sample was collected over 100 metres of sample line.

Samples were obtained from diamond drill core by taking approximately 1 cm long pieces of core every 10 to 15 cm for up to 7.5 metres of core length. Impure sections less than 0.3 m in length were included in the samples while most intrusive rocks were not. Details of these samples are given in Appendix II.

### 5.2 ANALYTICAL METHODS

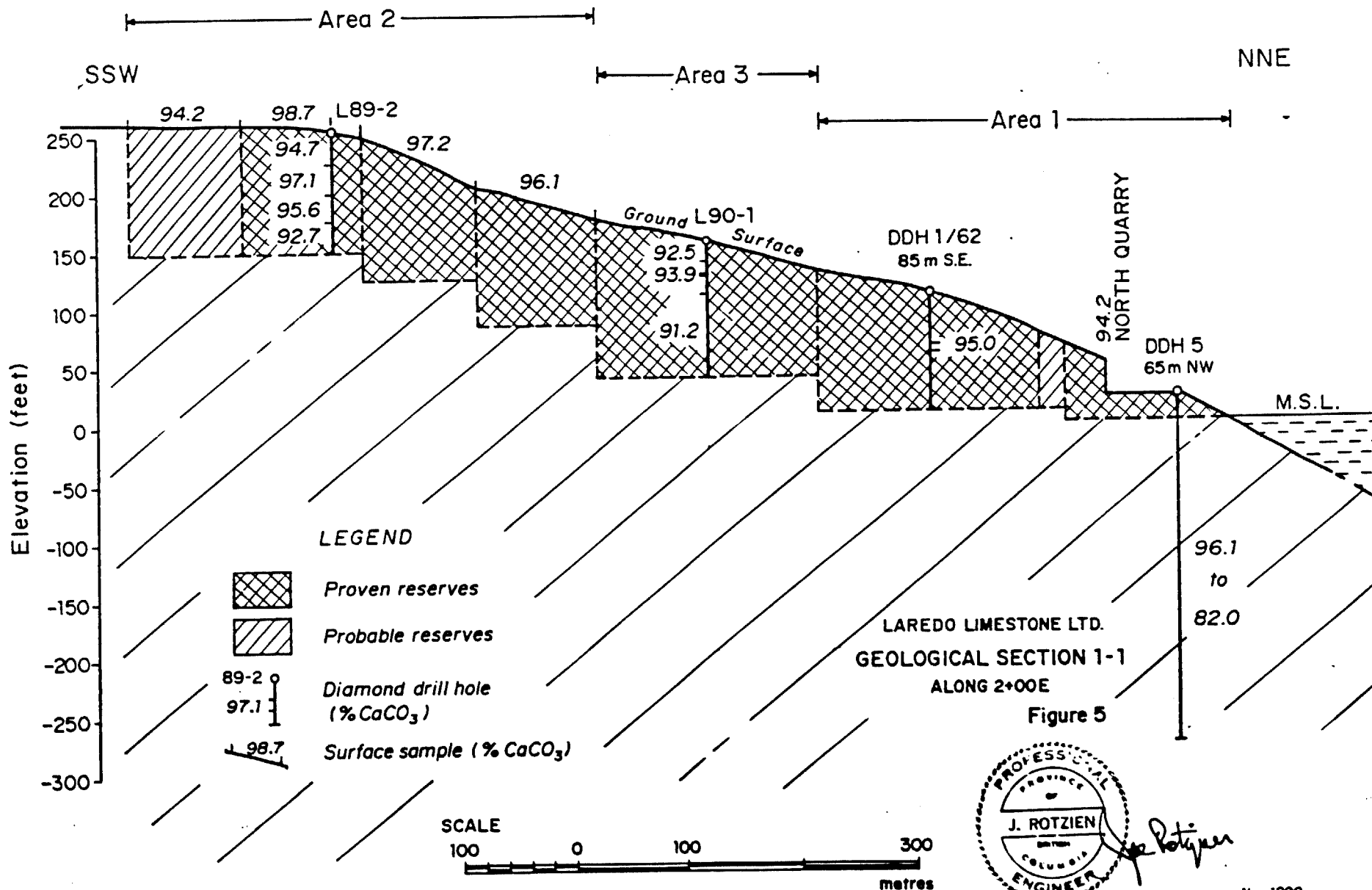
All of the chip samples obtained from the surface and drill hole sampling programs were analyzed by whole rock geochemistry methods for eleven oxides including CaO and MgO and for loss on ignition.

Details of the analytical methods are given in Appendix III.

## 6.0 RESULTS

The results of the analyses on the surface and drill core sampling programs are given in Appendix IV. The estimated  $\text{CaCO}_3$  content of each sample is given in Figures 4 and 5. These estimates are based upon calculations using atomic weights and the percentage CaO listed in Appendix IV.

# GEOLOGICAL SECTION ALONG 2+00E



## 7.0 DISCUSSION

The results of the surface sampling and drilling indicate that the continuity of the limestone grades is good along strike and down dip to a minimum of 40 metres (Fig. 5). In addition this detailed work between the two previously sampled areas allows for the inclusion of Area 3 within the reserve estimate.

## 8.0 CONCLUSIONS

Assuming continuity of the carbonate beds with depth, the total potential quarryable tonnage of limestone available on the Laredo property is estimated to be in excess of one billion tons. High calcite limestone is estimated to comprise approximately 50% of this tonnage.

Detailed surface sampling and diamond drilling have defined three areas of high Ca limestone and limestone that are immediately available for quarrying. The first area, at sea level around the old quarry, defined by previous drilling and sampling, has been confirmed by results from the 1989 sampling programs. Area 2 was investigated in detail by diamond drilling and surface sampling during the 1989 exploration program and Area 3 was investigated in December, 1990. The estimated limestone reserves within these areas are summarized in Table I.

TABLE I  
ESTIMATED LIMESTONE RESERVES

Area	Elevation	Class	High Calcium Limestone Tonnes (x10 <sup>6</sup> )	Limestone Tonnes (x10 <sup>6</sup> )	Total Tonnes (x10 <sup>6</sup> )
1	20m	Proven <sup>(2)</sup>	8.00	1.50	9.50
2	80m	Proven	8.25	3.00	11.25
3	50m	Proven	-	8.00	8.00
Total Proven Reserves			16.25	12.50	28.75
1	20m	Probable <sup>(3)</sup>	8.00	2.00	10.00
2	80m	Probable	11.25	18.75	30.00
3	50m	Probable	1.25	2.00	3.25
Total Probable Reserves			20.50	22.75	43.25
Total Proven and Probable Reserves			36.75	35.25	72.00

- (1) Reserves estimated within the depth of present investigations.
- (2) Proven ore is defined by detailed surface sampling and/or diamond drill samples to a maximum of 100 metres from the sample with a 95% degree of confidence in grade and tonnage.
- (3) Probable ore is defined by reconnaissance samples on the same trend as proven ore and areas between blocks of proven ore on the same trend. Probable ore is estimated with a 65% degree of confidence in grade and tonnage.



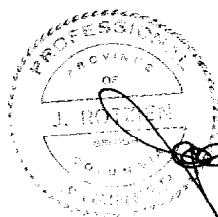
9.0 COSTS

The total cost of the 1990 exploration program completed on Laredo 3 was \$33,054.69. A breakdown of these costs is given below:

TABLE II  
SUMMARY OF COSTS

<u>Planning</u>	
4.75 days @ \$400/day prorated to portion after Dec. 4/90 = 10÷16 x \$1,900 + GST	\$1,270.63
<u>Drilling Hole 90-1</u> , hourly for one hole of 3.72 m depth Mobilization, demobilization, drilling etc. plus \$2,000.00 management fee	\$18,358.27
<u>Analytical costs</u>	
31 samples @ \$33.60 + GST =	\$1,114.45
<u>Site Supervision, Core Logging, Sampling</u>	
R. MacIntyre 16 days @ \$375 + GST + expenses prorated 10÷16	\$4,428.16
Printing, communication etc.	\$50.03
Airfare and Freight \$5,135.70 x 10÷16	\$3,209.81
Helicopter Support \$7,397.67 prorate to 10÷16	<u>\$4,623.54</u>
Total Exploration Expenses	<u>\$33,054.89</u>

Of these total costs only \$19,355 have been applied in a statement of work filed on December 2, 1991, \$1,800.00 of which is to be applied to the Laredo 3, 4, 5 and 6 claims of the Laredo 2 group and \$17,555 of which is to be credited to the PAC account of Laredo Limestone Ltd.



Respectfully submitted,  
Dolmage Campbell Ltd.

J.L. Rotzien, P.Eng.

## 10.0 REFERENCES

Baer, A.J. (1972), Bella Coola-Laredo Sound Map Area, British Columbia; Map 1328A, 1:250,000, Geological Survey of Canada, Memoir 372.

Campbell, D.D. (1962), Report on Aristazabal Island Limestone, Hecate Strait, B.C.

De Carlo, M. (1988), Letter report to Laredo Resources Ltd.

Fawley, Dr. A.P. (1988), Letter report to Laredo Resources Ltd.

Fawley, Dr. A.P. (1960) Aristazabal Island Limestone Deposit, British Columbia of Laredo Limestone Ltd.

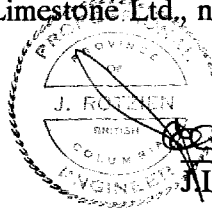
Rotzien, J.L. (1989) Drilling and Sampling Report on the 1990 Exploration of the Laredo 2 Group

11.0 STATEMENT OF QUALIFICATIONS

J.L. ROTZIEN

I, J.L. Rotzien of Port Moody, B.C. hereby certify that:

1. I received a Bachelor of Applied Science degree in Geological Engineering in 1972 and a Master of Applied Science Degree in Mining Engineering in 1989 from the University of British Columbia.
2. I have been practising my profession as a consulting geological engineer since 1972.
3. I am a member of the Association of Professional Engineers of British Columbia.
4. I indirectly supervised the field sampling and mapping program and reviewed the analyses of the marble samples and completed the marble reserve estimate.
5. I own no direct, indirect or contingent interest in any of the subject property nor any shares or securities of Laredo Limestone Ltd., nor do I expect to receive any.

 *J.L. Rotzien*  
\_\_\_\_\_  
J.L. Rotzien, P.Eng.

Dated at Vancouver this 28th day of February, 1992.

APPENDIX I  
DIAMOND DRILL CORE LOG

DRILL RECORD - DOLMAGE CAMPBELL LTD.

Coord. L. 200 mE/ 300 mN	Length 37.2 m	Project Laredo Limestone Ltd.	Hole No. L-90-1
Elev. -	Azimuth -	Location: Approximately 50 m south of trench.	Date:
Core size AX	Dip 90°	Purpose: Test downdip and on strike extension.	Logged by: R.F. McIntyre

Depth From To (m) (m)	Rock Type	Description	Core Loss		
			From (m)	To (m)	Lost (m)
0	2.4	Limestone	0	2.4	2.4
		No recovery. Limestone outcrops at surface within 1.5 m.	2.4	4.6	0.1
2.4	4.7	Limestone	4.6	6.1	0
		White, coarsely crystalline. Some rust on fractures.	6.1	7.6	0.4
		Grey intervals 2 cm at 2.5, 3.5 contain impurities.	7.6	10.7	2.3
4.7	6.9	Limestone	10.7	13.7	2.6
		Variable, Mostly white, massive. Impure sections with up to 5% pyrite and pyrrhotite 4.6 m-4.8 m, 5.4 m-5.5 m	13.7	15.2	1.2
		6.2 m-6.5 m. Includes 5 cm skarn zone at 6.3 m.	15.2	17.4	0.8
6.9	7.6	Diorite	17.4	19.8	1.0
		Dike, fine grained, med-dark grey, rubbly. Associated with zones of poor recovery. Ground core present.	19.8	23.8	1.6
			23.8	25.3	0.8
7.6	9.9	No Recovery	25.3	26.8	0.3
		Mud seam - possible gouge zone, some open void.	26.8	28.3	0.6
9.9	10.8	Limestone	28.3	30.5	0.9
		White to light grey, massive to coarsely crystalline.	30.5	33.5	2.0
		Some core ground. No visible sulphides.	33.5	36.6	2.8
10.8	15.2	Diorite	36.6	37.2	0.6
		Dike, same as 6.9 m-7.6 m above. Core often ground.			
		Only 0.6 m recovered. Remainder mud and voids.			
		As 7.6 m-9.9 m above.			
15.2	17.6	Limestone			
		White, coarsely crystalline, impure section with ≈2% pyrite 15.8 m -15.9 m. Much core lost.			
17.6	18.3	Diorite			
		Dike, core, ground. Possibly most of core lost here.			

Depth		Rock Type	Description	Core Loss		
From	To			From	To	Lost
(m)	(m)					(m)
18.3	19.2	Limestone	White, coarsely crystalline, no visible impurities. Some ground core. Poor recovery.			
19.2	24.1	Limestone	White, mainly coarsely crystalline. No visible impurities. Extensive core loss.			
24.1	24.2	Limestone	Gougey zone, fractures 10° to core axis. No sulphides.			
24.2	36.6	Limestone	White, mainly massive; some coarsely crystalline. No visible impurities. Extensive core loss 27.4 m - 36.6 m.			
36.6	37.2	Limestone	Drilled, blocked core tube, twisted off rods when trying to pull. Lost bit, reamer, core barrel and tube, one 10' rod. Unable to recover.			

END OF HOLE

APPENDIX II  
SAMPLE LOG

SAMPLE RECORD - DOLMAGE CAMPBELL LTD.

Date: December 1990

Company: Laredo Limestone Ltd.

Project: Aristazabal Island

Sample Number	Type	Location	From (m)	To (m)	Description	Sample Width (m)
2801	Core	DDH-L-90-1	2.5	4.7	Limestone, quite pure	2.2
2802	"	"	4.7	6.9	Lst, less pure	2.2
2803	"	"	7.6	10.8	Lst, quite pure	3.2
2804	"	"	15.2	19.8	" "	4.6
2805	"	"	19.8	23.8	" "	4.0
2806	"	"	23.8	30.5	" "	6.7
2807	"	"	30.5	36.6	" "	6.1
2751	Chip	Grid L.400 mB	200N	330N	Limestone	130
2752	"	"	415N	500N	"	85
2753	"	"	500N	605N	"	105
2754	"	Grid L.200mE	200N	325N	"	125
2755	"	Grid L.300N	100E	200E	"	100
2756	"	"	0E	100E	"	100
2757	"	Grid L.0.0mE	200N	300N	"	100
2758	"	Grid L.200mE	425N	500N	"	75
2759	"	"	500N	600N	"	100
2760	"	"	600N	675N	"	75
2761	"	Grid L.300N	200E	300E	"	100
2762	"	"	300E	400E	"	100
2763	"	"	400E	500E	"	100
2764	"	"	500E	600E	"	100
2765	"	Grid L.500N	80E	160E	"	80
2766	"	"	0E	80E	"	80
2767	"	Grid L.500N	200E	300E	"	100



2768	"	"	300E	400E	"	100
2769	Chip	Grid L.500N	400E	500E	Limestone	100
2770	"	"	500E	600E	"	100
2771	"	Grid L.600mE	200N	300N	"	100
2772	"	"	300N	400N	"	100
2773	"	"	400N	500N	"	100
2774	"	"	500N	620N	"	100

**APPENDIX III**  
**ANALYTICAL METHODS**

Rock Geochem Ring - Chemex Code 205  
Assay Ring - Chemex Code 208

Entire sample is crushed in jaw crusher to approximately 3/4". Sample is then crushed in gyratory cone crusher to approximately 1/8", split in Jones Riffler to approximately 150-200 gms. and pulverized using zirconia rings to approximately 100 mesh.

#### WHOLE ROCK ANALYSIS

A 0.1 g sample is added to 0.7 g of lithium metaborate flux, mixed well and fused in a furnace at 1050 degrees C. The bead is dissolved in 100 ml of 4% HNO<sub>3</sub> and this solution is analyzed by inductively coupled plasma-atomic emission spectroscopy (ICP-AES).

#### METHOD FOR LOSS ON IGNITION

A porcelain crucible is cleaned and dried in an oven at 105 degrees C. The crucible is cooled and the weight recorded. A 1.0 g sample is weighed into the crucible and the weight recorded.

The sample is ashed for one hour in a furnace at 1000 degrees C and then placed into a dessicator and cooled. the ashed sample is weighed and loss on ignition calculated.

APPENDIX IV  
ANALYTICAL RESULTS



# Chemex Labs Ltd.

Analytical Chemists \* Geochemists \* Registered Assayers  
 212 Brooksbank Ave., North Vancouver  
 British Columbia, Canada V7J 2C1  
 PHONE: 604-984-0221

To: DOLMAGE CAMPBELL LTD.

1970 - 1055 W. HASTINGS ST.  
 VANCOUVER, BC  
 V6E 2E9

Page Number : 1  
 Total Pages : 1  
 Invoice Date: 17-DEC-90  
 Invoice No. : I-9028141  
 P.O. Number :

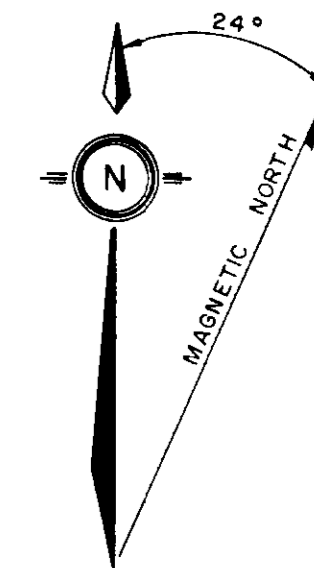
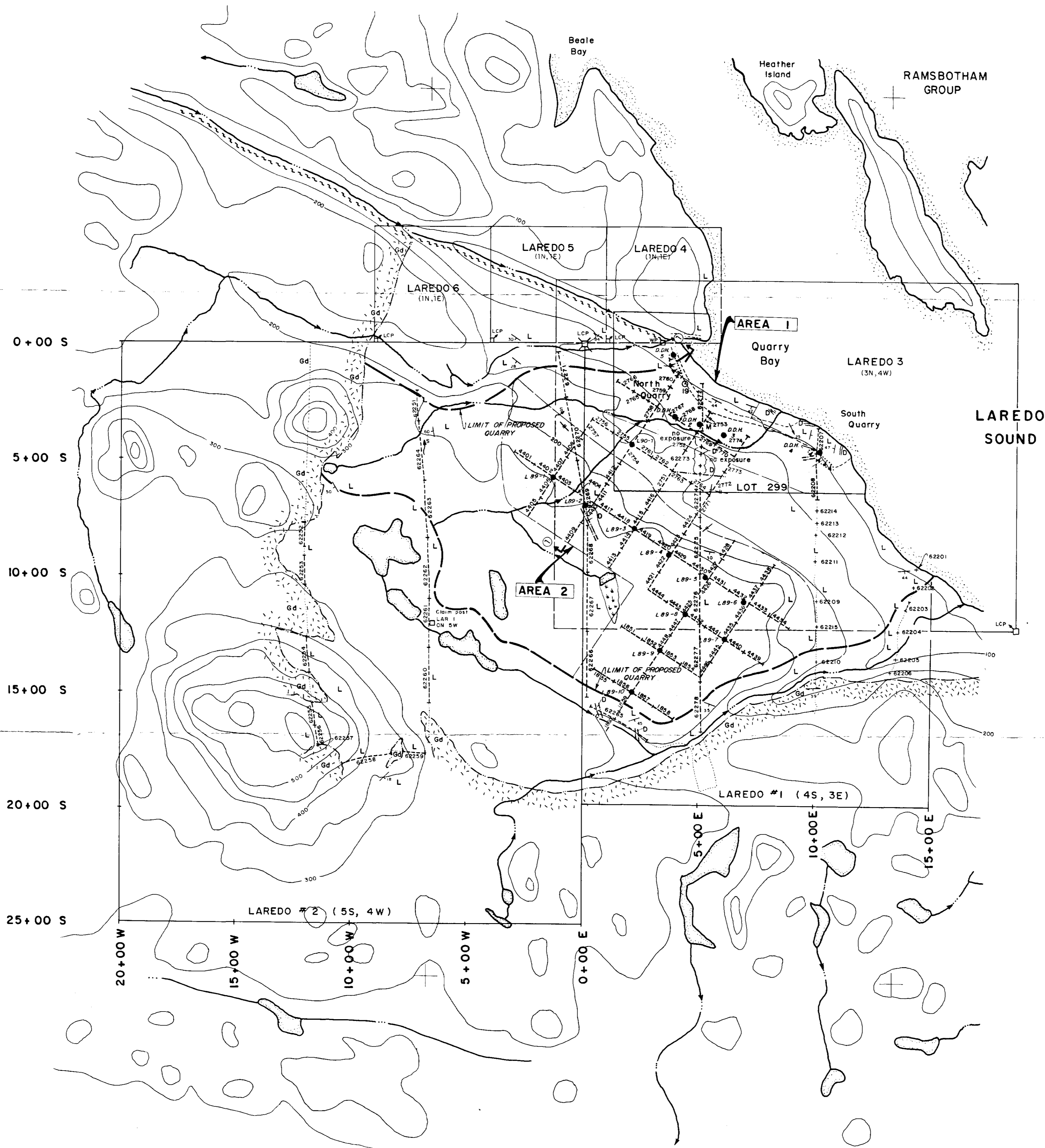
Project :  
 Comments: ATTN: J.H.ROTZIEN

## CERTIFICATE OF ANALYSIS A9028141

SAMPLE DESCRIPTION	PREP CODE	Al2O3 %	BaO %	CaO %	Fe2O3 %	K2O %	MgO %	MnO %	Na2O %	P2O5 %	SiO2 %	TiO2 %	LOI %	TOTAL %
2751	258 295	0.23	< 0.01	50.87	0.07	0.07	2.41	0.01	0.09	< 0.01	1.54	< 0.01	43.09	98.34
2752	258 295	0.06	< 0.01	49.97	0.23	0.05	3.51	0.01	0.03	< 0.01	0.67	< 0.01	43.08	97.60
2753	258 295	0.02	< 0.01	53.33	< 0.01	0.04	1.41	< 0.01	0.03	< 0.01	0.44	< 0.01	43.37	98.66
2754	258 295	0.02	< 0.01	52.33	< 0.01	0.04	2.14	< 0.01	0.02	< 0.01	0.48	< 0.01	43.12	98.16
2755	258 295	< 0.01	< 0.01	53.64	< 0.01	0.03	1.25	< 0.01	0.02	< 0.01	0.19	< 0.01	42.89	98.06
2756	258 295	1.35	< 0.01	49.50	0.51	0.05	2.65	< 0.03	0.27	< 0.01	4.32	< 0.01	40.51	99.18
2757	258 295	< 0.01	< 0.01	52.58	< 0.01	0.03	2.11	< 0.01	0.03	< 0.01	1.20	< 0.01	42.05	98.04
2758	258 295	< 0.01	< 0.01	51.82	0.02	0.05	3.21	0.01	0.02	< 0.01	0.39	< 0.01	43.63	99.14
2759	258 295	< 0.01	< 0.01	53.08	< 0.01	0.04	1.87	0.01	0.02	< 0.01	0.34	< 0.01	43.68	99.05
2760	258 295	< 0.01	< 0.01	54.18	< 0.01	0.03	0.85	< 0.01	0.01	< 0.01	0.34	< 0.01	42.65	98.09
2761	258 295	< 0.01	< 0.01	53.37	< 0.01	0.03	1.70	< 0.01	0.01	< 0.01	0.35	< 0.01	43.20	98.70
2762	258 295	0.05	< 0.01	53.59	0.10	0.04	1.47	< 0.01	0.02	< 0.01	0.44	< 0.01	43.02	98.73
2763	258 295	< 0.01	< 0.01	53.67	< 0.01	0.03	1.48	< 0.01	0.01	< 0.01	0.16	< 0.01	43.18	98.56
2764	258 295	0.03	< 0.01	52.98	< 0.01	0.04	1.80	< 0.01	0.02	< 0.01	0.56	< 0.01	43.09	98.53
2765	258 295	0.03	< 0.01	50.54	0.25	0.03	4.16	0.01	0.03	< 0.01	0.27	< 0.01	43.20	98.53
2766	258 295	< 0.01	< 0.01	52.25	0.05	0.03	2.71	0.01	0.03	< 0.01	0.22	< 0.01	43.67	98.99
2767	258 295	0.07	< 0.01	49.27	0.23	0.02	5.00	0.01	0.03	< 0.01	0.58	< 0.01	43.03	98.25
2768	258 295	0.05	< 0.01	48.93	0.28	0.04	5.54	0.01	0.02	< 0.01	0.53	< 0.01	43.23	98.62
2769	258 295	0.14	< 0.01	50.95	0.51	0.03	3.25	0.01	0.03	< 0.01	0.74	< 0.01	42.36	98.03
2770	258 295	0.05	< 0.01	54.30	0.05	0.06	0.79	0.01	0.03	< 0.01	0.38	< 0.01	43.36	99.01
2771	258 295	0.06	< 0.01	49.74	0.13	0.04	3.87	0.01	0.08	0.01	0.31	< 0.01	43.56	97.97
2772	258 295	0.07	< 0.01	51.14	0.20	0.03	2.71	0.01	0.06	< 0.01	0.40	< 0.01	43.08	97.93
2773	258 295	0.26	< 0.01	47.41	0.74	0.04	5.56	0.01	0.08	0.03	1.67	0.01	42.04	98.00
2774	258 295	0.09	< 0.01	53.34	0.10	0.03	1.05	0.01	0.06	0.01	0.51	< 0.01	43.35	98.74
2801	258 295	0.05	< 0.01	53.04	0.25	0.03	0.94	0.01	0.06	0.01	0.35	< 0.01	43.17	98.03
2802	258 295	0.61	< 0.01	50.18	1.36	0.06	1.61	0.03	0.13	0.02	2.18	0.03	42.44	98.85
2803	258 295	0.08	< 0.01	52.60	0.20	0.03	0.90	0.11	0.08	0.01	0.39	< 0.01	43.64	98.20
2804	258 295	0.42	< 0.01	51.35	0.27	0.11	1.71	0.01	0.17	0.01	1.77	0.01	42.06	98.02
2805	258 295	0.03	< 0.01	52.08	0.02	0.03	1.93	0.01	0.09	< 0.01	0.28	< 0.01	42.73	97.29
2806	258 295	0.07	< 0.01	49.19	0.06	0.04	4.77	< 0.01	0.07	0.01	0.27	< 0.01	43.13	97.76
2807	258 295	0.05	< 0.01	52.27	0.05	0.03	1.52	< 0.01	0.07	< 0.01	0.33	< 0.01	43.08	97.53

CERTIFICATION:

*B. Coughlin*



**LEGEND**

- D** Diorite - Diabasic Dykes  
Fine grained, dark green mafic dykes.
- Gd** Granodiorite  
Moderately foliated hornblende granodiorite
- L** Limestone  
White, coarse grained granoblastic limestone

**SYMBOLS**

- Geologic Contact (defined, inferred)
- Attitude of Foliation
- Attitude of Bedding
- Plunge of Minor Fold Structure
- Subvertical Solution Joints
- Legal Corner Post, Claim Boundary
- Stream Sink Hole
- Approximate Location of Existing Drill Holes

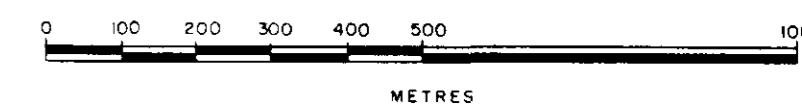
**SAMPLE TYPES**

- Composite Chip Sample
- Single Outcrop Sample
- Traverse Line

- Notes:
- Base map provided by Laredo Limestone Ltd. Scale enlarged to 1:1000.
  - Granodiorite / marble contact mapped on sample traverse lines and interpolated with reference to air photograph.

Contour Interval = 50 Feet

**SCALE**



To accompany a report by Dolmage Campbell Ltd., Feb., 1989

**DOLMAGE CAMPBELL LTD.**  
CONSULTING ENGINEERS, VANCOUVER, CANADA

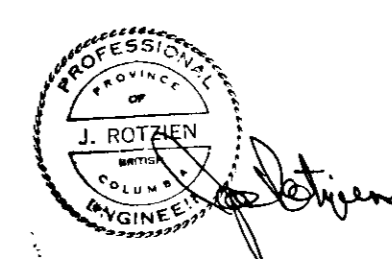
**LAREDO LIMESTONE LTD.**

**ARISTAZABAL ISLAND  
PROPERTY**

**GEOLOGICAL PLAN**

SKEENA MINING DIVISION, B.C.

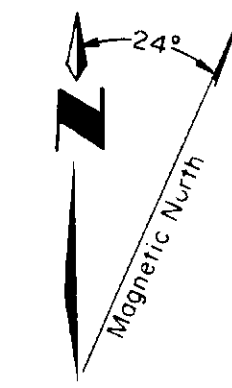
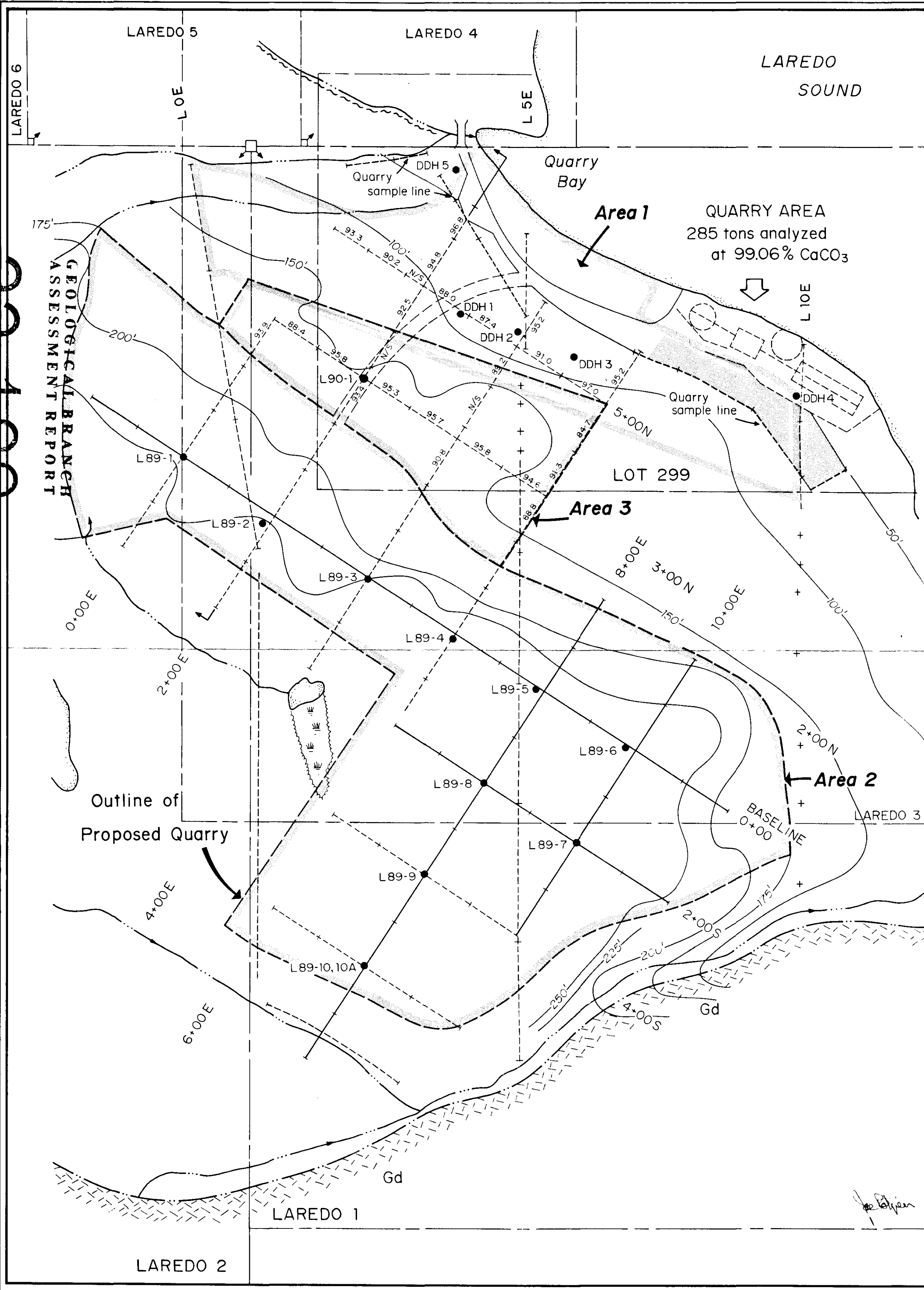
Technical work by: M.M. / J.O.	N.T.S.: 93D and part of 103A
Drawn by: B. McLEOD	Scale: 1:1000
Date: FEBRUARY 22, 1989	Figure No. <b>3</b>



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GEOLOGICAL BRANCH  
ASSESSMENT REPORT

22,189



**LEGEND**

- D Diorite - Diabasic Dykes  
Fine grained, dark green mafic dykes
- Gd Granodiorite  
Moderately foliated hornblende granodiorite
- Db Diabase
- L Limestone  
White, coarse grained granoblastic limestone
- Do Dolomitic limestone  
Grey, coarse to fine grained
- Ms Metasediments  
Fine to coarse grained, foliated
- Ss Siltstone  
Dark grey, fine grained

**SYMBOLS**

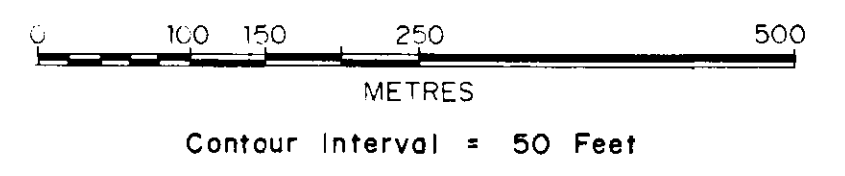
- Geologic Contact (defined, inferred)
- Attitude of Foliation
- Attitude of Bedding
- Plunge of Minor Fold Structure
- Subvertical Solution Joints
- Legal Corner Post, Claim Boundary
- Stream Sink Hole
- Approximate Location of Existing Drill Holes

**SAMPLE TYPES**

- Composite Chip Sample, % CaCO<sub>3</sub>
- Single Outcrop Sample
- Not sampled

Notes: 1. Base map provided by Laredo Limestone Ltd. Scale enlarged to 1: 5000  
2. Granodiorite/marble contact mapped on sample traverse lines and interpolated with reference to air photograph.

**SCALE**



To accompany a report by Dolmage Campbell Ltd, June, 1989

**DOLMAGE CAMPBELL LTD.**  
CONSULTING ENGINEERS, VANCOUVER, CANADA

**LAREDO LIMESTONE LTD.**

**ARISTAZABAL ISLAND  
PROPERTY**

**DETAILED GEOLOGICAL PLAN**

SKEENA MINING DIVISION, B.C.

Technical work by: M.M. / J.O.	N.T.S.: 93D and part of 103A
Drawn by: B.McLeod, D.Phillips	Scale: As shown
Date: June 1989, November 1990	Figure No: <b>4</b>