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TEXADA LIME LTD.

RAVEN BAY PROPERTY
TEXADA ISLAND, B.C.

by

J.W. MacLeod, P. Eng.

Vancouver, B.C.
May 1, 1978

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ILLUSTRATIONS

	<u>SCALE</u>
LOCATION OF PROPERTY	1" = 30 miles
LOCATION OF QUARRIES	1 : 50,000
PLAN OF PROPERTY	1" = 400'

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TEXADA LIME LTD.
RAVEN BAY PROPERTY
TEXADA ISLAND, B.C.

INTRODUCTION

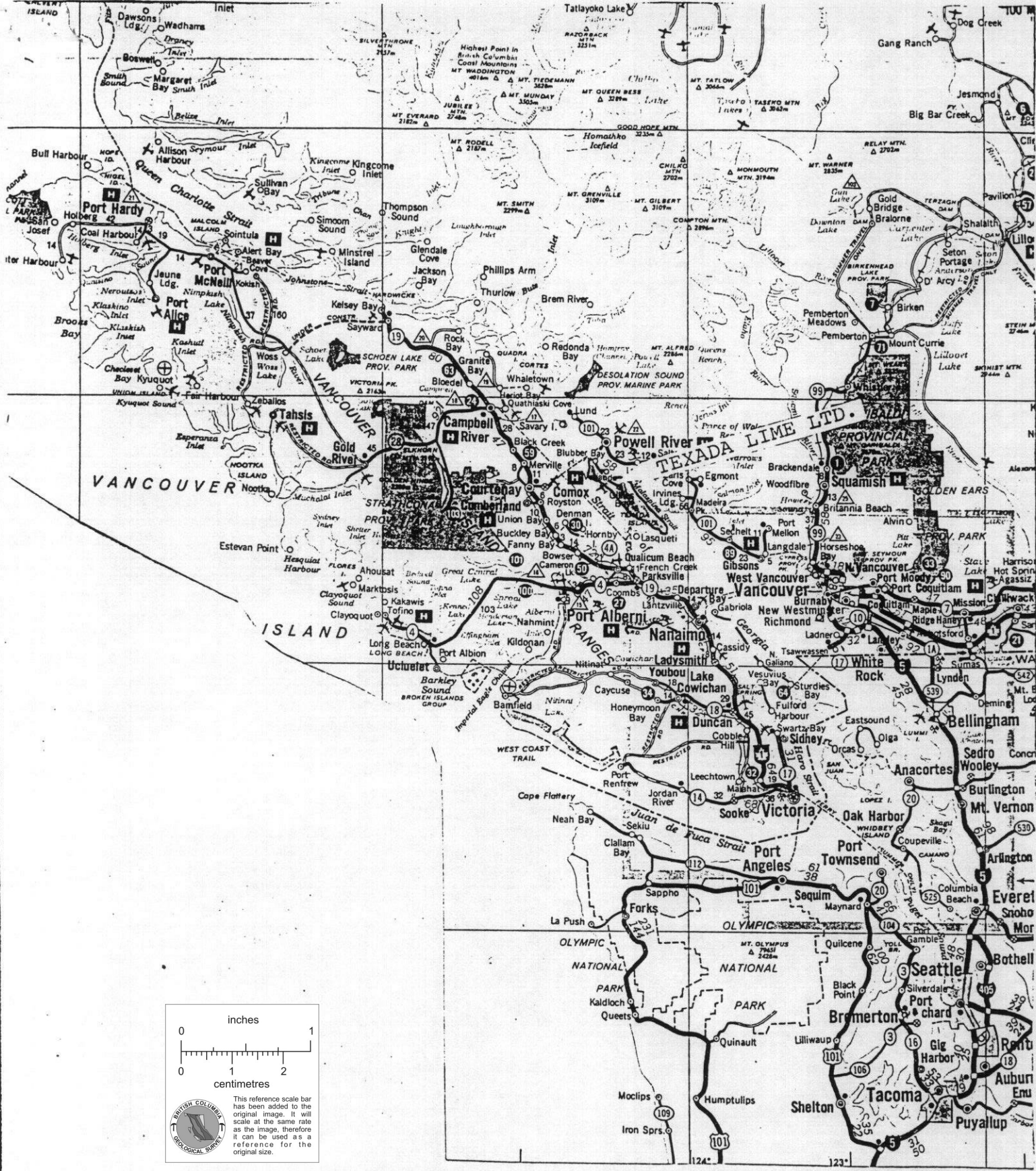
The following report on the Raven Bay, Texada Island property of Texada Lime Ltd. has been prepared with the object of determining the merits of the property from a mineral exploration standpoint and to determine a realistic present value.

SUMMARY & CONCLUSIONS

Texada Lime Ltd. owns the only significant deposit of metallurgical grade limestone available with sufficient reserves to support a viable operation in the established limestone producing belt on Texada Island. This deposit is ideally located with respect to a potential deep sea loading terminal and the infrastructure provided by the mining community of Vananda, all of which is in a tourist like setting.

In addition to the limestone the property has exploration potential for other minerals such as gold, copper and magnetite, which are known to occur in the vicinity. The geological setting suggests the possibility of tungsten occurrences.

It is estimated that the property has a value requiring a down payment of \$70,000.00 after which the seller should participate in some way in the profits of any resulting operation.



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MERV ENGINEERING CORP.	
LOCATION OF TEXADA LIME PROPERTY	
DRAWN BY:	SCALE: 1" = 30 miles
DATE: APRIL, 1978	N. T. S. :

PROPERTY

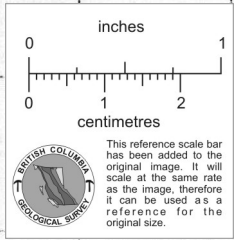
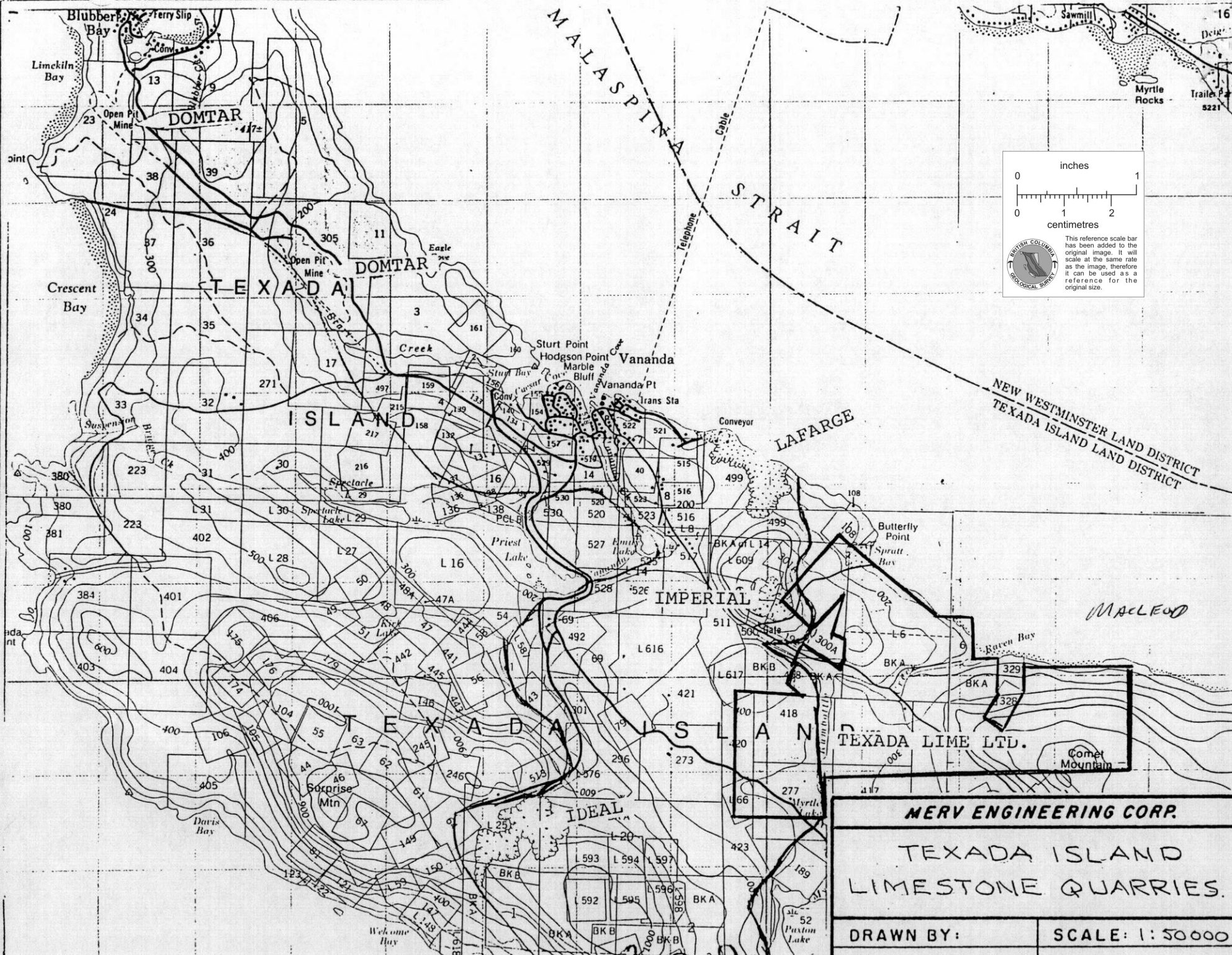
The Raven Bay property consists of the following located claims:

<u>NAME OF CLAIM</u>	<u>RECORD NO.</u>	<u>EXPIRY DATE</u>
WIP 1-14	36713 - 36726	March 15, 1980
Molly	17981	June 7, 1980
Molly 1-3	18073 - 18075	June 28, 1980
Molly 4-7	18139 - 18142	Sept. 10, 1980
Will 3	19450	June 6, 1981
Will 4-6	19451 - 19453	June 6, 1983
Tex 1-2	34413 - 34414	Sept. 21, 1980
Kelly Jo. Fr.	19674	July 21, 1981
Joe	19671	July 21, 1978
Will 2 Fr.	21086	Nov. 8, 1978
Willy 1-2	27287 - 27288	Nov. 10, 1978

These 33 contiguous claims require an expenditure of \$200 each per year (\$6,600 total) to maintain them in good standing beyond the expiry dates shown. Mineral claims map 92-F 9 W and 10 E indicates the Texada #7 Fr. adjoining to the south of CG lot 300A and Molly 4 to be in good standing. This area, if it exists, would require a legal survey to establish, which expense is not justified unless production were contemplated. The ground covered by this fraction would appear to be a small area of volcanics.

HISTORY

The present Ravey Bay property accumulation was started by purchase in 1971 and the final staking of the WIP claims was carried out in 1973, to make up the 33 claim group. Prior to this the area is known to have been staked but the only available record of work is a report by V. Dolmage in 1954 covering the results of 23 short drill holes to test limestone quality. Further drilling was carried out in 1973, 74 and 75. In 1971 a portion of the property was covered by a geochemical and a magnetometer survey.



MERV ENGINEERING CORP.	
TEXADA ISLAND LIMESTONE QUARRIES.	
DRAWN BY:	SCALE: 1:50000
DATE: APRIL 1976	NTS

GENERAL

Texada Island, 30 miles long and 2-5 miles wide, is located between Vancouver Island and the B.C. Mainland 65 miles northwest of Vancouver. This island has had a prolific history of mineral production starting with the Vananda camp in the early 1900's which saw a number of producers of copper-gold from massive sulfide replacement bodies and a few small gold mines from vein type deposits.

The early twenties saw the start of large scale limestone quarrying and since that time the island has become the principle supplier of this stone to industry for B.C. and northwestern Washington with a total production of 2,173,831 tons in 1976.

The island has also been a substantial producer of magnetite iron from contact metamorphic deposits on the limestone-intrusive contact.

The most recent activity centres around a new gold in limestone discovery, examined and reported on in the 1974 M.E.G. by Northcote of the B.C. Dept. of Mines.

Therefore any mineral claims on this island in the vicinity of limestone should be investigated for the foregoing types of deposits.

The island has the most temperate climate in Canada, no water problems, is readily accessible and in general is an idyllic setting for a mining operation.

The Raven Bay property is located on the northeast coast of the island about 2½ miles southeast of the town of Vananda. All parts of the property are readily accessible by logging roads from the two main public roads on the island which cross the property. Raven Bay is a good deep sea loading terminal location.

GEOLOGY

The north end of Texada Island is underlain by Karmutsen Volcanics and Quatsino Limestone of the Vancouver Series intruded by quartz diorite and gabbro. Here a broad syncline about 2 miles wide preserves the limestone along the fold axis for about 7 miles. Except for a few magnesian beds and minor silicification close to dikes the limestone in this area is a uniquely pure stone. The underlying volcanics consisting of basis flows and porphyrites are estimated to be 10,000 feet thick with the limestone having a maximum thickness of 2500 feet.

Of the Raven Bay claims, most of Wil 3-6, Tex 1 and 2 and portions of Will 2 Fr., Kelly Jo Fr. and the Molly claims are underlain by the limestone unit with the remainder of the property mainly the volcanic unit. Quartz diorite outcrops on the shore of the island in the vicinity of Raven Bay.

MINERAL OCCURRENCES

The most significant mineral on Texada Island is the apparent unlimited reserves of metallurgical grade limestone and accompanying cement grade within the Bonanza unit at the north end of the island. Except for the limestone underlying the Texada Lime Ltd. Raven Bay property, all of the reserves have been alienated by four large multinational companies: Domtar, Ideal, LaFarge, and Ocean Cement. A specialty quarry is operated by Imperial Limestone.

Therefore the Texada Lime Ltd. reserves represents the only available stone should another operator wish to enter the business.

Liberally allowing for pit slope, dikes and boundry limitations there is a reasonably assured area 2000 feet 3000 feet on the property

MINERAL OCCURRENCES CONT'D.

underlain by limestone. Taking this area to a depth of 300 feet, about the mean to sea level here, reserves in this block would be, $\frac{2000 \times 3000 \times 300}{12} = 150,000,000$ tons. Taking into consideration optimal use of today's open pit equipment a minimum operation of 3000 tons per day or 1,000,000 tons per year is required, therefore reserves are readily available for 150 years.

The grade of the reserves has been established by 4335 feet of diamond drilling in the following programs:

1954	23 holes	2053 feet
1973	10 holes	1000 feet
1974	5 holes	1006 feet
1975	10 holes	1276 feet

It may be anticipated that 10% of this material will be lost to dike and minor silicification due to these intrusives. The remainder will be metallurgical grade (less than 1% MgO , 1% SiO_2 , 0.1% F_2O_3) except for a possible higher magnesian band indicated by the east-west section of holes 74-1, 74-2, 73-1, 73-3 and 74-4. Hole 74-5 did not intersect this horizon suggesting this hole may be west of the fault inferred on surface in this vicinity and thereby increasing the potential thickness of metallurgical grade stone in this direction.

There are no known outcrops of copper-gold-iron mineralization on the property and if they existed would have been located by the "old timers" but the overburdened area remains to be tested by modern geophysical methods. In this regard a portion of the property has been covered by a copper geochemical survey which indicates a number of small anomalies requiring follow up. The limestone-volcanic contact was covered with a magnetometer survey which suggests the contact to be vertical.

A speck of gold was noted in the limestone in drill hole 73-3 at footage 105 in this hole.

VALUATION

The usual valuation techniques to establish a present value do not normally apply to a mineral prospect that is not in production, but it is often necessary to arrive at some figure mutually agreeable to the buyer and seller, particularly the amount of the down payment as a relation to present value. A figure sometimes used is the amount spent on the property prior to the sale. Even this is often difficult to establish but a minimum would be that required to maintain a property in good standing under the requirements of the mineral act, that is, \$200 per claim per year.

In the case of Texada Mine's - Raven Bay property consisting of 33 claims which have been held since 1971 and most of which are in good standing until 1980 a reasonable payment would be $33 \times \$200 \times 10(\text{years}) = \$66,000.00$.

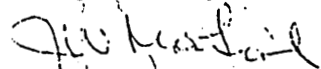
Another approach would be to assume the value to the seller equal to that of the minimum the government demands which in the case of limestone is a royalty of 15¢ per cu. yd. or 6.7 cents per ton of stone. Assuming two years to negotiate a deal and three years to complete production facilities, royalties would be due in 1983.

It has been established that a mining rate of 3000 tons per day or 1,000,000 tons per year is required for a viable operation which would result in a royalty payment of \$67,000.00 per year. Discounting an income of \$67,000 per year starting in 1983 to the year 1998 at a rate of 30% the present value of this income would be \$76,950.00

An average of the two estimates or $\frac{\$66,000 + \$76,950}{2} = \$71,475$ say \$70,000 would represent a reasonable figure for a down payment on this property.

Vancouver, B.C.
May 1, 1978

Respectfully submitted,


J.W. MacLeod, P. Eng.

APPENDIX I

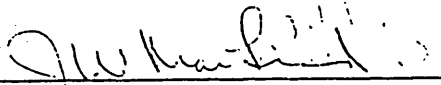
CERTIFICATE

CERTIFICATE

I, James W. MacLeod, of 1220 Arbutus Street, in the city of Vancouver, in the Province of British Columbia,

DO HEREBY CERTIFY:

1. That I am a Consulting Engineer, with a business address at #333-885 Dunsmuir Street, in the City of Vancouver, in the Province of British Columbia.
2. That I am a graduate of the University of Alberta with the degree of B.Sc. in Mining Engineering.
3. That I have actively practiced my profession in mineral exploration since graduation in 1946.
4. That I am a registered Professional Engineer in the Province of British Columbia.
5. That this report is based on a review of the references in Appendix II including all drill hole data, personally logging the 1974 drill core and a visit to the operations of the Imperial Limestone and LaFarge on Texada Island.



J.W. MacLeod, B.Sc., P. Eng.

Dated at the City of Vancouver,
Province of British Columbia,
the 1st. day of May, 1978.

APPENDIX II

REFERENCES

REFERENCES

- | | | |
|---------------------------|------------------------------------|------|
| G.S.C. Memoir 58 | - Texada Isl. B.C., R.G. McConnell | 1914 |
| B.C. Dept. Mines Bull. 23 | - W.H. Mathews | 1947 |
| B.C. Dept. Mines Bull. 40 | - W.H. Mathews | 1957 |
| Raven Bay Property | - V. Dolmage | 1954 |
| Raven Bay Limestone | - J.T. O'Connor | 1970 |
| Texada Lime Ltd. | - W.G. Wahl | 1974 |
| Texada Lime Ltd. | - A.J. MacDonald | 1975 |
| Imperial Limestone Ltd. | - J.W. MacLeod | 1976 |