

Item 1.

Working costs in Limestone on Texada Island.

GENERAL.

810001

4 Operators under different physical conditions.

1. Domtar - Blubber Bay - $1\frac{1}{2}$ mile haul to loading point - old plant - very heavy overburden factor. Supplies Oregon Portland Cement in Portland as well as o/s p/w ; o, e $\frac{1}{2}$; amt on Tacoma and general commercial business. About 750,000 tons per year production.
Mike Perro
Resident Manager.
2. Ideal
Sturt or Marble Bay with 4 mile haul supplying a Seattle cement plant and commercial business in pulp and paper mills etc., also rip-rap for volume of about 1 million tons annually. Largest property owner on Texada.
J. Keith Johnson - Sup't
Peter Steles - Mine
Engr.
3. La Fargo
South of Van Anda. Supplies cement plant in Richmond and minor commercial business. About 800,000 - 900,000 tons per year. Supply Lone Star in Seattle.
Dave Webster
Superintendent
4. Imperial
South of La Fargo. Supplies Agstone Plant in Seattle and commercial business. About 100,000 - 150,000 tons per year. Owned by Y. A. Jacks Inc. of Seattle.
Limestone.
Al Dewart Super-
intendent.

Each operation has its own advantages or disadvantages in location, deposit or captive market.

Production costs are probably close and could be shown, in general terms at:

Quarrying, including strip & clear, Drill and Blast and load to truck @ .20 per ton.	.20 per ton
Transportation or trucking @ .08 per ton mile or at 2 miles	.16 per ton
Crushing or Processing	.20 per ton
Handling or Distributor	.08 per ton
Overheads - variable on investment - say -	<u>.20</u> per ton
Total cost per short ton on board barge, Texada	<u>.84</u> per ton

Estimated general cost Texada operators is .80 to .90 per ton.

But no first class production quarry is in operation and opportunity exists for a good installation to produce at .50 to .60 per ton.

Item 2.

Freight or Transportation.

- Texada - Vancouver (75 miles) .60 per ton
in small volumes.
- Texada - Seattle (Puget Sound) .60 per ton
(180 miles) by reason of high volume & handling rates.
- Texada - Portland (Columbia River) 1.80 - 2.00 per ton
- Texada - California: None at present. Indicated \$1.50 per ton
(Vancouver Tug) in 30,000 ton barges with Salt as
a back haul.

All Freight depend on volume of movement rate of loading and rate of discharge and size of carrier that can be used.

The largest barges in 1970 are the 11,000 tonners out of Domtar to Oregon Portland and the 9,000 tonners out of Ideal to the Columbia River
20,000 ton barges are now being built for the logging trade and 30,000 ton vessels are being considered for California transportation.

Item 3.

Price: F.O.B. Texada.

Crusher run - minus 2" or residual fines at \$1.10 per ton.

Chemical, Sized between	2" x 3/4"
97% Calcium carbonate	1 1/2" x 3/4"
standard.	3/4" x 5/16"

all at \$2.50 to 2.90 per ton.

Market potential in aggregate field because of depletion of natural gravels.

Potential bulk users: uncommitted and with serious quarry problems)

1. Columbia Cement, (P.P.Gloss) Bellingham 200,000 tons 1 yr.
2. Ocean Cement, Bamberton, Vancouver Island 500,000 tons 1 yr.

Competition:

1. Oregon Portland in Portland 400,000 tons 1 yr.

as well as existing and possible new consumers particularly in its pollution field as well as California potential.

Depth of deposit and volume of stone.

160 acres is very conservative.

All indication by existing operators show at least 500 feet of depth and possibly 700 to 1,000 feet.

Therefore at sea-level, approximately, or 500 feet we suggest:

$$\begin{array}{r} \text{Using } 40,000 \text{ sq. ft. per acre @ } 500' \text{ depth} \\ \underline{\quad 500} \\ \text{or } + \frac{20,000,000 \text{ cu. ft.} = 740,000 \text{ cu. yds. (approx)}}{27} \end{array}$$

at 2.25 tons per cu. yd. in place = 1,665,000 tons per acre
- 415,000

Less dilution of 25% = 1,250,000 tons per acre

Say 160 acres @ 1,250,000 tons = 200,000,000 tons

Area of limestone is probably greater than 160 acres and depth more than 500 feet and dilution factor less than 25%.

Limestone in place is 2.25 tons per cubic yard.
Limestone weighs 168 lbs. per cubic foot.
Limestone, broken, weighs 100 lbs. per cu. ft.

Item 5

Inspection of operations.

Suggest: Underhill man - Jack Parnell Simpson and J. T. O'Connor to make.

1. Fly-over of Island for perspective of operations.
2. Visit general areas as proposed.
3. Visit other operations as discussed and agreed.

Item 6

Price: \$300,000 for Mineral Claims & Crown Grant.

- (a) Tax angle for vendor.
- (b) Selling claims and right of application, not limestone as such.
- (c) Price is less than one or two pieces of equipment and is unique opportunity.

Texada Do - list photos 16/1/70

ORDER NO. _____

PRICE

DEV. 1.50

PTG. 4.16

SUB TOTAL 5.66

TAX 21

▼ TOTAL ▼
5.87

NAME Lawyer, P.

ADDRESS _____

DATE 1/20/70

PHONE 689-9304

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J. T. O'CONNOR

HOME: 5730 COLLEGE HIGHROAD, VANCOUVER 8, B.C. 224-6339
OFFICE: 683-4840

November 14, 1969

Mr. J. B. Sawyer,
Cypress Mines Corporation,
822 - 510 W. Hastings Street,
Vancouver 5, B.C.

Tons 50' over 180 tons.

Dear Sir:

Please find the enclosed copy of Report on my Limestone property on Texada Island. It is felt that this is a major non-metallic holding with considerable potential in the future.

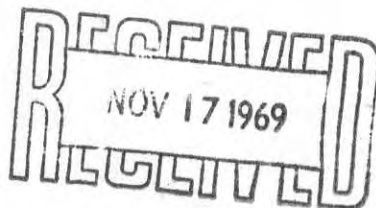
The quality and volume of the deposit, when considered in the context of favourable geographical location and market growth in the cement, steel, chemical and anti-pollution fields, indicate that the property has substantial merit in the developing Pacific Region.

I will be pleased to discuss this matter in detail, at your convenience.

Yours very truly,

J. T. O'Connor
J. T. O'Connor.

JTO'C/ep
Enclosure.



RAVEN BAY LIMESTONE PROPERTY
SUMMARY AND COMMENTS

SUMMARY

The present report is a compilation of information gained from previous reports and a visit made to Texada by Messrs. Sawyer and Simpson.

The Raven Bay limestone property is situated on the north-east coast of Texada Island, some 83 miles northwest of Vancouver. The property offers a potential 100 million short tons of high-grade low-magnesia limestone of which a high percentage could be expected to be of metallurgical/chemical grade. The deposit is accessible in respect to deep water barge transport and major northwestern United States and Canadian ports. The product would fit into a well-established pattern of limestone production from Texada which in 1969 exceeded 3 million short tons of which 70% was exported to the United States. Total production for B.C. in 1968 is quoted at 3,000,000 tons, indicating a major dependence of the chemical and building industries in this area on Texada stone. As indicated on the accompanying map of B.C. alternative producer areas are limited in size and are generally inferior to Texada material.

The property is solely owned and covers about 600 acres of which approximately 160 acres are underlain by limestone; the remainder of the property serving to provide access to tidewater. There is a good all year-round climate on the Island, and the deposits are situated in an area of moderate terrain with a difference in elevation of 470' from sea level to possible production area, and a routed haulage of approximately one and a half miles. No particularly hazardous mining conditions are foreseen.

If preliminary market research indicates acceptable profitability, it is recommended that an option be acquired in order to prove the deposits and carry out an intensive market research program.

LOCATION AND ACCESS

The property is located on the northwest coastal section of Texada Island, situated about 80 miles northwest of Vancouver; Seattle, Portland and San Francisco being 180, 400 and 900 sea miles distant respectively. The claims extend from the coast at Raven Bay, inland for about one and a half miles giving ready access to tidewater. An island link road from Raven Bay to Vananda on Sturt Bay to the north traverses the property.

PROPERTY AND OWNERSHIP

The property comprises 16 full and fractional mineral claims and one Crown Grant. The total area covered is about 600 acres, of

which approximately 150 to 160 acres (680,00 sq. yds.) is underlain by limestone considered suitable for quarrying. The balance of the ground provides right-of-way to the coastal Crown Grant on Raven Bay. All adjacent favourable ground is under claim by major producers. The area under consideration is a result of acquisition of mining claims and Crown Grants over a long period.

Recorded mineral claims on vacant Crown Land give the rights to precious and base metals, but not limestone. However, valid claims control the ground and preclude any lease application for limestone unless specifically approved by the claim owner, who can hold the ground and consent to his own lease application. The reason given for the property offer is the advanced age of the sole owner, and a desire to capitalize prior to new capital gains tax laws coming into effect. It is suggested by the author of the proposal report that in the past, development of this property has been hampered by a succession of promotional and management inadequacies. The ground has been thoroughly checked by a reputable firm of surveyors specializing in claim and Crown Grant work and appears to be in good standing to June, 1971.

GEOLOGY

Texada Island is underlain by Jurassic-Cretaceous volcanics with intercalated sediments, the most important of which is a limestone series of which Texada quarry stone is a part. There are two areas of carbonate rocks on the Island and include a northeastern arcuate belt extending north-south across the Island and swinging to the north on the east coast, and a central west coast area where a small outlier of limestone occurs. The property under discussion is situated in the northeast coastal belt of limestone which forms a gently dipping synclinal structure. The carbonate formation is made up of three successive horizons, the lower of which is high in calcium and low in magnesium. Succeeding horizons are more magnesium rich, the highest being largely dolomitic. The area of interest within the property covers a four-claim section on the eastern margin of the carbonate belt and should, theoretically, be largely underlain by the low-magnesia horizon. The beds dip successively to the west with moderate dips. A complicating factor of the Texada quarries is the presence of andesitic dykes which cut the limestone formations. Other than this, the lower member should represent about 500 feet of high-calcium limestone with only minor magnesian limestone bands.

COMPOSITION

Theoretically, the claim area underlain by limestone is favourable with regard to the lowest member of the carbonate formation which is generally high in calcium. Previous work on the property undertaken by Dolmage and Campbell included sampling and diamond drilling in one section of the property. The average assays resulting from this work are shown on the accompanying Tables I and II. Two small areas designated "A" and "B" were tested by diamond drilling and surface sampling. In these areas just under one million tons was proven to a depth of 50 feet. Including an area between the two proven zones, which is considered by Dolmage to be of similar

type, just under two million tons of low magnesia limestone is indicated, to a depth of 50 feet, with a magnesia content from 0.10 to 0.65% and insolubles from 0.20 to 4.8%. Sections showing the diamond drill holes are included in the report, and the co-ordinating plan shows that the areas proven are only representative of a part of the eastern margin of the deposit.

Surface samplings carried out at widely scattered points within the limestone area were also assayed and the results are given in Table III. For the areas tested by both surface and diamond drill sampling the limestone is of good grade and well within the limits of specification for Portland Cement and general usage. For chemical and metallurgical grade lime the percentage of insolubles is moderate but, based on the low silica content of assayed surface samples, should not provide too much in the way of undesirable constituents. The averages for P_2O_5 and total sulphur at 0.05 and 0.06% respectively are both marginal in respect to the more stringent specifications for chemical/metallurgical lime: the generally acceptable limits being 0.05% in both instances. However, these are average figures and it follows that with only moderate selectivity, a high percentage of quarryable material will be well within the limits given above. The magnesium content of all samples assayed is consistently and remarkably low at an average of below 0.3% MgO, with drill core assays averaging below 0.2% MgO.

The presence of andesitic dykes present both a physical and chemical impurity which will entail some selective extraction of the dyke material and consequently raise quarrying costs. The overall effect of this is as yet unpredictable, but by comparison with known quarrying areas the percentage of dyke rocks exposed would appear to be relatively small. However, some dykes are indicated as being present and in order to maintain quarry symmetry, this material would have to be removed where in excess of 1 or 2 feet in width, as customer objection to this material would be extremely high with its potential effect on plant flow.

Overburden is assumed to be negligible, but it is certain that at least some capacity in the top 10 feet will be discard material due to surface contamination.

TONNAGE POTENTIAL

Proven tonnage by previous drilling over a small section of the ground is less than 1 million short tons to a quarrying depth of 50 feet. Assuming that all the ground shown as being underlain by limestone is marketable material, a figure of 5 million short tons per 10-foot vertical depth would appear reasonable, i.e. an area of 680,000 sq. yds. at 2.25 short tons per cubic yard. Assuming a 25' berm width and overall 45° quarry slope, a practical extraction in excess of 100,000,000 tons to sea level would appear to be reasonable. This takes into account a possible 20% loss of limestone on the eastern margin due to thinning and a further 15% wastage and mining loss.

Little or no chance would appear to be available for extending the coverage of areas underlain by limestone, as these are

already in the hands of competitors. The only possibility of increasing tonnage from this property would be by quarrying to greater depths.

PROPERTY POTENTIAL

Assuming that the tonnage and grades anticipated are available, an assessment of the property remains largely one of marketing, i.e. whether maximum profitability would be available from the sale of raw limestone in bulk to present users, or whether involvement in the production of cement and allied products would be justified. As far as is known, all present output from the Island, totalling some 3 million short tons, is in the form of bulk limestone or crushed and sized material which is exported by large ocean-going barges. Many of the quarries are owned by major producers and apart from the usual features of geographical inertia, it is not apparent why attempts have not been made to erect a cement or lime plant on the Island. For large cement and lime-producing plants, it is usual to establish an 80 to 100 year supply based on initial plant, as capacity is invariably increased as markets expand. A reserve of 100,000,000 tons would be sufficient to supply a moderate to large cement plant for 100 years at an extraction rate of 1 million tons annually.

MARKET RESEARCH

As with all industrial minerals, market availability and potential are prominent factors in successful development. In the long-term there is a high rate of projected increase in the use of limestone and limestone products within a marketable radius of Texada Island, and competitive production areas are limited. The dependence of most of B.C. and Washington port cities on Texada stone is already well-established. The following facts are pertinent to a preliminary market research:

- 1) Potential buyers with mainland plant and serious supply problems are:
 - a) Columbia Cement (P.P. Glass), Bellingham 200,000 tons yr.
 - b) Ocean Cement, Bamberton, Vancouver Island 500,000 tons yr.
- 2) Annual production - Texada 1968 3,000,000 s.t.
- 3) Medium-sized cement plant requires 500,000 s.t. per yr. (3 million barrel production)
 - e.g. Ocean Cement, B.C. 3 million barrels yr.
 - LaFarge Cement, B.C. 1½ million barrels yr.
 - Hawaiian Cement, (Cyprus) 1 million barrels yr.
- 4) Cost of medium-sized 3 million barrel plant \$25-30 million

PRODUCTION COSTS AND PRICES

The following are tentative production costs per short ton for Texada stone established from statistics and producer estimates:

	\$
Crown Lease Rental @ \$10 per acre per annum	0.01
Crown Royalty @ 10¢ per cu. yd. limestone removed	0.05
Quarrying including strip and clear, drill and blast, and load to truck	0.20
Transportation to barge by truck @ 0.8¢ per ton mile	0.15
Crushing and screening	0.20
Handling and distributor	0.08
Overheads variable on investment cost	0.20

* Cost F.O.B. barge Texada	0.89

* Overall cost of 90¢ may be subject to reduction with latest plant and quarry design utilizing conveyor delivery to tidewater.

Price: F.O.B. Texada per s.t.

Crusher run minus 2" and crusher fines	1.10
Chemical/met. grade 97% Ca CO ₃ sized 2" - 3/4", 1-1/2" - 3/4", 3/4" - 5/16"	2.90
N.B. 10¢ duty on this grade imported U.S.A.	

Capitalization for quarry machinery, conveyor or truck, loading facilities and preparation for production - in the order of \$5,000,000 (guess)

Haulage Rates per s.t.

Texada - Vancouver (75 miles) per ton small volume, 2-300 ton lots	0.60
Texada - Puget Sound (Seattle) 180 miles in high volume quantities	0.60
Texada - Portland	1.80 - 2.00
Texada - California for very high volume, 30,000 ton barges with salt backhaul	1.50

Price: Cement per ton	\$18 - \$20
Lime per ton	\$15

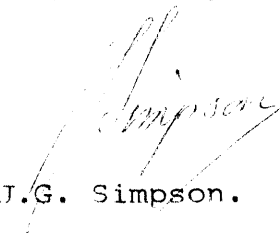
CONCLUSIONS AND RECOMMENDATIONS

A moderate to large tonnage of limestone with a high percentage of chemical/metallurgical grade material is indicated on the property. Provided that a suitable margin of profitability is apparent from a preliminary feasibility study, an option to prove reserves and carry out an extensive feasibility study is recommended.

Considering the confused nature of land rights in B.C. in general and Texada in particular, any option agreement should be conditional on final proof of ground rights and securing of quarrying leases. Further, any substantial payment should be conditional on proving of marketable reserves of low-magnesian limestone to a minimum of 100,000,000 short tons.

The asking price of the property is likely to be in the region of \$250,000, conditions and schedule of payments and/or share interest being subject to negotiation.

Respectfully submitted,



J.G. Simpson.

J.S. → ccm → file

CYPRUS EXPLORATION CORPORATION, LTD.

510 WEST HASTINGS STREET
VANCOUVER 2, BRITISH COLUMBIA
TELEPHONE: 683-9304

March 19, 1970

Mr. J. T. O'Connor,
c/o Colony Surf Apartment Hotel,
Suite #907, 2895 Kalakaua Avenue,
HONOLULU, Hawaii
96815

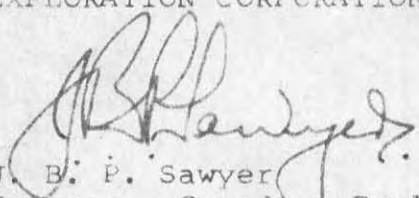
Dear Mr. O'Connor:

After further study and consideration by our marketing experts in Los Angeles, it has been decided that Cyprus would not be able to proceed any further in the matter of developing your Raven Bay Limestone property.

We thank you for giving Cyprus the opportunity to consider your property, and trust that you will be successful in making suitable arrangements with another party. We would be happy to consider any other prospects of interest which you may acquire.

Yours very truly,

CYPRUS EXPLORATION CORPORATION, LTD.


J. B. P. Sawyer
Manager - Canadian Exploration

JBPS/jel

c.c. Mr. C. A. Mark, C.M.C., Los Angeles

MEMORANDUM

TO: J. B. P. Sawyer

March 16, 1970
39-CLV

FROM: C. A. Mark

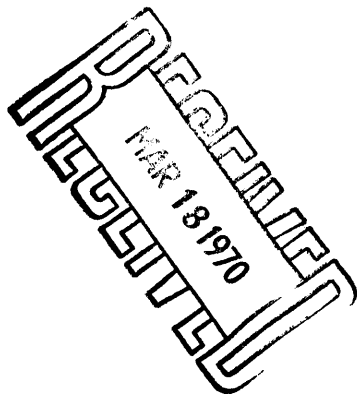
SUBJECT: Raven Limestone Deposit

Attached is a summary of subject property which recommends against proceeding further with the project. I agree with Bill's conclusions, so please advise the owner accordingly.


C. A. Mark

CAM/pc
Attachment

cc: J. G. Hansen (w/attachment)



March 13, 1970

✓
To: C. A. Mark
From: W. E. Hosken
Re: Raven Bay Limestone Deposit

Attached is a brief summary of the situation with respect to cement and cement manufactured in Washington, Oregon and British Columbia. As you can see from the tabulation of manufacturers and the map which indicates ownership of existing deposits, your principal potential customers would seem to be miners of adjoining deposits. La Farge, which is the major cement producer in British Columbia, has a deposit and plant, Kaiser has a deposit and plant in Oregon and Washington, and Ideal has a deposit and plant. The only way I think you can even consider such an operation would be to sign long term contracts with some of the individual producers listed on page 4 of the report. I really wonder about that; for example, Hawaiian Cement, which we know intimately sits right on top of a coral limestone deposit in the Hawaiian Islands, and has no need for any outside suppliers. They are listed as a potential market.

I do not see going into the cement business just because we are able to get a limestone deposit. I would think if we did, it would be the problem of investigating where the most appropriate place is related to the market demand and supply of raw materials. The great fiasco of all time in the cement business was Atlantic Cement which was built on tidewater with the thought that a large plant would have lower costs and be highly competitive over a wide area using water transportation. The economics of this did not work out and Atlantic has the largest turkey anybody has built in a long time.

Secondly, limestone is such a low value product and apparently in good supply in lots of places, that I think you have to base any mining operations of limestone on a local demand.

Finally, without going into the cement business, it would seem to me that it would be hard to have this one meet up to our size criteria.

I would recommend against proceeding with this project.

WEH:ct
attach.

WEH ct

LIMESTONE

Limestone and Dolomite Production and Value (1)

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>
<u>Washington</u>						
Production (mil. s/t)	N/A	1.1	1.4	1.4	.9	1.0
Value (mil. \$'s)	N/A	\$2.4	\$2.9	\$2.5	\$1.5	\$1.5
Quarrying operations						11
<u>Oregon</u>						
Production (mil. s/t)	.8	.6	.6	.6	.6	N/A
Value (mil. \$'s)	N/A					
Quarrying operations						2
<u>Total U. S.</u>						
Production (mil. s/t)	488	510	554	568	569	603
Value (mil. \$'s)	\$662	\$694	\$748	\$776	\$783	\$857

Limestone and Dolomite Shipped or Used by Producers in U.S. by Uses - 1968 (1)

<u>Uses</u>	<u>Quantity</u> <u>000 S/T</u>	<u>Value</u> <u>000 \$'s</u>
Agricultural purposes	38,369	\$ 68,988
Aggregates	366,633	507,575
Riprap and jetty stone	12,934	16,799
Ballast	5,721	7,374
Filter Stone	486	913
Fine Aggregate	3,203	5,204
Terrazzo	139	825
Cement manufacture	97,773	104,682
Lime manufacture	27,473	50,460
Dead burn dolomite	3,055	4,923
Flux	28,268	43,329
Refractory	473	1,270
Chemical stone for alkali works	2,520	3,705
Other	<u>15,894</u>	<u>41,157</u>
Total	602,941	\$857,204

Raw Materials Used in Production of Portland Cement in the U.S. - 1968 (1)

<u>Raw Materials</u>	<u>Quantity 000 X/T</u>	<u>% of Total</u>
Limestone (including oystershell)	83,751	65%
Cement rock	23,842	19
Clay and shale	12,489	10
Gypsum	3,427	3
Sand and sandstone	1,807	1
Blast-furnace slag	1,086	1
Other	1,784	1
Total	128,186	100%

Cement Shipments (1), (2), (6), (7)

	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>Compound Annual Growth Rate 1968/63</u>
<u>To and Within Washington</u>							
376# bbls. (000)	5,223	5,360	5,894	7,296	7,368	6,725	+5.2%
Average value per bbl. (\$)	\$3.57	3.59	3.57	3.57	3.67	3.64	
Active plants	6	6	6	6	7	5	
<u>To and Within Oregon</u>							
376# bbls. (000)	3,189	3,024	4,309	4,280	3,415	3,618	+2.5%
Average value per bbl. (\$)	\$3.57	3.59	3.57	3.61	3.61	3.58	
Active plants	N/A	3	3	3	2	2	
<u>Total U. S.</u>							
376# bbls. (million)	358	375	384	390	382	406	+2.6%
Average value per bbl. (\$)	\$3.23	3.22	3.18	3.15	3.17	3.19	
Active plants	181	181	181	184	188	183	
<u>British Columbia</u>							
376# bbls. (000)				3,762	3,776	3,602	
Average value per bbl. (\$)				\$4.24	4.49	4.17	
Active plants				3	3	3	
<u>Estimates for Total U. S.</u>							
		<u>1969</u>	<u>1970</u>				
376# bbls. (million)		407	407				

Mode of Shipments of Portland Cement - 1968 (1)

	<u>Washington</u>	<u>Oregon</u>	<u>U.S.</u>
Truck	71%	88%	71%
Rail	19	12	26
Boat	10	0	3

Cement Consumption by Types of Customers - 1968 (1)

	<u>Washington</u>	<u>Oregon</u>	<u>U.S.</u>
Building materials	3.7%	3.3%	8.0%
Concrete Product mfrs.	10.6	10.7	13.2
Ready-mixed concrete	69.9	72.4	60.6
Highway contractors	7.1	9.6	9.6
Other contractors	3.9	3.8	4.6
Federal, State and other Governmental Agencies	3.9	0.2	0.5
Misc., including own use	0.9	-	3.5

Capacity of Portland Cement Manufacturing Plants (1), (2), (6), (7)

	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970(E)</u>
<u>Washington</u>						
Capacity (000 - 376# bbls.)	6,975	6,975	9,575	8,200		
% Utilized	87.2%	89.0%	61.5%	77.2%		
<u>Total U.S.</u>						
Capacity (million 376# bbls.)	482	495	509	509	518	523
% Utilized	77.0%	77.7%	72.6%	77.6%		
<u>British Columbia</u>						
Capacity (000 - 376# bbls.)		4,800	4,800	4,800		
% Utilized		78.4%	78.7%	75.0%		

Cement Plants (3)

	<u>Company</u>	<u>Process</u>
<u>Washington</u>		
Bellingham	Columbia Cement Co., Div. PPG Industries	Wet
Betaline Falls	Lehigh Portland Cement Co.	Dry
Seattle	Ideal Cement Co.	Wet
<u>Oregon</u>		
Huntington	Oregon Portland Cement Co.	Wet
Lake Oswego		
<u>British Columbia</u>		
Bamberton	Ocean Cement Ltd.	Wet
O Kamloops	La Farge Canada Ltd.	Wet
Richmond		Wet

Cement Distributing Plants (3)

	<u>Company</u>
<u>Washington</u>	
Auburn	Oregon Portland Cement Co.
Groto	Ideal Cement Co.
Kennewick	Oregon Portland Cement Co.
Pasco	Kaiser Cement & Gypsum Co.
Seattle	Columbia Cement Co.; Kaiser Cement & Gypsum Co.
Spokane	Ideal Cement Co.; Lehigh Portland Cement Co.
Vancouver	Ideal Cement Co.
<u>Oregon</u>	
Eugene	Ideal Cement Co.; Lehigh Portland Cement Co.
Portland	The Flintkote Co.; Kaiser Cement & Gypsum Corp.; Lone Star Cement Corp.; Oregon Portland Cement Co.
Springfield	The Flintkote Co.
<u>British Columbia</u>	
Comox	LaFarge Cement of North America Ltd.
Cranbrook	" " " "
Dawson Creek	" " " "
Fort St. John	" " " "
Nanaimo	" " " "
North Vancouver	" " " "
Prince George	" " " "
Victoria	" " " "
New Westminster	Ocean Cement Ltd.

<u>Construction Contracts</u> (4)							<u>Compound Annual</u>
	<u>1963</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>Growth Rate 1968/63</u>
<u>Washington</u>							
Value (million \$'s)	891	833	1,007	1,021	1,201	1,417	+9.7%
<u>Oregon</u>							
Value (million \$'s)	574	497	586	535	531	558	-0.5%
<u>Total U.S.</u>							
Value (million \$'s)	45,546	47,330	49,272	50,150	54,514	61,736	+6.3%

Outlook - Construction Contracts (5)

	<u>1969</u>	<u>1970</u>	<u>Rate of Growth</u>
<u>Total U.S.</u>			
Value (million \$'s)	66,100	66,625	+1.0%

3/5/70

IB

Sources:

- (1) U.S. Dept. of Interior, Bureau of Mines, "Minerals Yearbook: Vol. I and Vol. III", 1963, 1964, 1965, 1966, 1967, Preprints 1968
- (2) Trauffer, Walter E., "Cement, 1969, 1970", Pit and Quarry, January, 1970
- (3) _____, "Pit & Quarry Cement Plant Map", 1969
- (4) U.S. Dept. of Commerce, Bureau of the Census, "Statistical Abstract of the United States", 1964, 1965, 1966, 1967, 1968, 1969
- (5) Kostka, James G., "Construction, 1969, 1970", Pit and Quarry, January, 1970. (From F. W. Dodge 1970 Outlook)
- (6) _____, "Canada's Dynamic Mining Industry", E/MJ, September 1969
- (7) _____, "Metal Products of British Columbia", Western Miner, June 1968

INTER OFFICE MEMO

CYPRUS EXPLORATION CORPORATION LTD.
VANCOUVER OFFICE

Date: February 12, 1970

To: C. A. Mark

Ref. 112-CVL

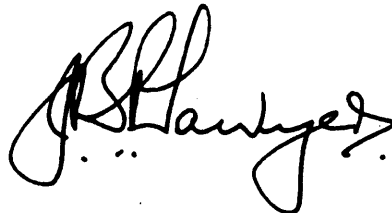
From: J.B.P. Sawyer

Subject: RAVEN BAY LIMESTONE DEPOSIT, TEXADA ISLAND

Mr. J.T. O'Connor is the owner of a limestone property in the Raven Bay area of Texada Island. Last November he submitted to us a report and maps, etc on this property which he wants to sell. We have reviewed the data, and Glenn Simpson has put together the attached summary and comments. We made a visit to the area on January 16th last.

While I realize that industrial minerals in general and limestone in particular, do not stand high on our list of priorities, on the basis that a profit is a profit regardless of source, I now pass this information along for your consideration. The present compilation of data and comments attempts only to summarize the main facts. We have not gone into great detail nor have we devoted very much time to it until we know the extent of Cyprus's possible interest in this type of situation. It seems to us, there is a good chance to establish a substantial operation on this property either simply as a source of limestone or possibly integrated with cement production. It would seem to us that marketing information and studies is the next requirement and, being already in the cement business, I am sure our Company must have people knowledgeable in this field.

Would you please advise as to any possible interest by Cyprus in this prospect. O'Connor would, I judge, probably be quite reasonable to deal with.



JBPS/jel

Encl.,

CYPRUS EXPLORATION CORPORATION, LTD.

510 WEST HASTINGS STREET
VANCOUVER 2, BRITISH COLUMBIA
TELEPHONE: 683-9304

March 3, 1970

Mr. J. T. O'Connor,
c/o Colony Surf Apartment Hotel,
Suite 907,
2895 Kalakaua Avenue,
Honolulu,
HAWAII 96815

Dear Mr. O'Connor:

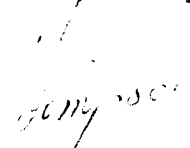
Thank you for your letter of March 2nd, and I regret that both Mr. Sawyer and myself were not available.

You will be pleased to hear that our Los Angeles office is giving the limestone property careful consideration and at present is engaged in a detailed market study.

As you appreciate, a venture of this nature depends largely on market feasibility and taken to its logical conclusion, may involve a high capital expenditure. Naturally the company wishes to assess the market carefully before making any commitment, and it is hoped that you can extend the time for a final decision for a few weeks.

Should any further developments take place before you return, I will inform you immediately.

Yours sincerely,


J. G. Simpson

JGS/jel

J. T. O'CONNOR

HOME: 5730 COLLEGE HIGHROAD, VANCOUVER 8, B.C. 224-6339
OFFICE: 683-4840

March 2, 1970

Mr. G. Simpson,
Cypress Mines Corporation,
822 - 510 W. Hastings Street,
Vancouver 5, B.C.

Dear Mr. Simpson:

I phoned you last week but you were out of town and so was Mr. Sawyer.

I am going away on a holiday for a month in Hawaii and my address is:

J. T. O'Connor,
c/o Colony Surf Apartment Hotel,
Suite 907,
2895 Kalakaua Avenue,
Honolulu,
HAWAII 96815.

Should anything come up about which you want to get in touch with me, write to me in Hawaii or, if you wish to phone me about anything please phone my office at 683-4840 and ask for my phone number in Hawaii. They will have it.

Trusting that we can successfully conclude business on the Limestone property and with very kindest personal regards, I am,

Yours very truly,


J. T. O'Connor.

JTO'C/ep

CYPRUS EXPLORATION CORPORATION, LTD.
510 WEST HASTINGS STREET
VANCOUVER 2, BRITISH COLUMBIA
TELEPHONE: 683-9304

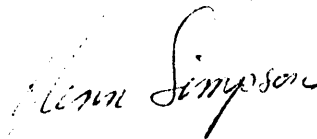
February 5, 1970.

Mr. Douglas D. Campbell,
Dolmage Campbell & Associates Ltd.,
1000 - 1055 West Hastings Street,
Vancouver 1, B.C.

Dear Doug:

Many thanks for the Raven Drill Location map,
which completes my file on the late Dr. Dolmage's report.

Best regards,

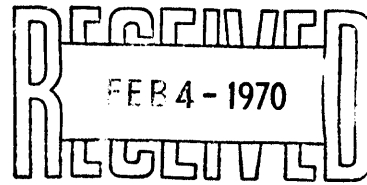


J.G. Simpson.

JGS:lah

DOLMAGE CAMPBELL & ASSOCIATES LTD.
CONSULTING ENGINEERS

1000-1055 W. HASTINGS STREET
VANCOUVER 1, CANADA
MU 1-2345



February 3rd, 1970.

Dr. Glen Simpson,
Cyprus Explorations Ltd.,
#822, 510 W. Hastings St.
Vancouver 1, B.C.

Dear Glen:

Enclosed is a copy of the Raven Bay drill location map. It is a spare, so you can keep it.

Best regards,

A handwritten signature in black ink, appearing to read 'Douglas D. Campbell'. The signature is written in a cursive style with a long, sweeping tail.

Douglas D. Campbell.

Encl.

DDC/fw

March 8, 1970

Temp 84° - Sunny.

16/3

J.B.P.S. to see.

Dear Mr. Simpson

Thank you for your letter of March 3rd.

I am pleased to hear of the Los Angeles interest & am happy to extend the time for a final decision for a few weeks.

My thinking is that the market study will work to my advantage.

The weather here is excellent & I am enjoying the sun & surf.

My phone number is 923-6789 should you wish to contact me.

Best regards to Mr Sawyer & yourself.

Sincerely,
Joe O'Leannon.

T. T. O'Connor. Apt 907 Colony Surf

2895 Kalakaua Ave

Honolulu Hawaii 96815

ZIP CODE



VIA AIR MAIL

Mr. J. G. Simpson
Cypres Exploration Corp. Ltd.
510 West Hastings St.
Vancouver 2, B. C.
Canada.

92-F - RAVEN BAY LIMESTONE DEPOSIT
TEXADA ISLAND - B.C.
