

FROM FILES OF B.P. MINERALS, VANCOUVER,  
OCTOBER, 1989

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Property File

92F 363

will

RAVEN BAY LIMESTONE

SUMMARY OF PROPERTY

PRODUCT: CHEMICAL AND CEMENT GRADE LIMESTONE. POTENTIALLY  
150,000,000 TONS. AVERAGE ANALYSIS:  $C_2O$  55.33%,  $CO_2$  42.22,  
INSOLUBLE RESIDUE 1.48,  $FeO_3$  0.16,  $Al_2O_3$  0.11,  $MgO$  0.14,  
S 0.06,  $P_2O_5$  0.05, CARBON 0.29.

LOCATION AND ACCESSIBILITY: TEXADA ISLAND, BRITISH COLUMBIA, CANADA.  
ADJACENT TO DEEP WATER. DISTANCES: VANCOUVER, B. C.  
80 MILES, SEATTLE 180, PORTLAND 400, SAN FRANCISCO 900.

OWNERSHIP: PRIVATELY HELD BY MINING CLAIM. CROWN LEASE AVAILABLE  
TO CLAIM HOLDER AT ROYALTY OF 10 CENTS PER CUBIC YARD.  
AREA IS 600 ACRES OF WHICH 160 ACRES ARE UNDERLAIN BY  
LIMESTONE.

ECONOMIC POTENTIAL: TEXADA ISLAND IS THE MAJOR PRESENT AND  
POTENTIAL SOURCE OF LIMESTONE FOR THE ENTIRE WEST COAST  
OF THE UNITED STATES. SIX MAJOR FIRMS HAVE ACQUIRED  
ALL OF THE REMAINING TRACTS WITH THE EXCEPTION OF THE  
RAVEN BAY PROPERTY. PRODUCTION IN 1968 WAS 3,000,000  
TONS OF WHICH 70% WENT TO THE U. S. WITH FOREIGN REGISTRY  
OF SHIPS AND SIZEABLE BULK CARRIERS, THIS SOURCE PROMISES  
TO BE THE LOWEST-COST SOURCE OF SUPPLY FOR MANY YEARS TO  
COME.

PHYSICAL PROBLEMS: THE MARBLE BAY LIMESTONE OF TRIASSIC AGE IS  
KNOWN TO BE IN EXCESS OF 300 FEET THICK, AND MAY BE MORE  
THAN 2000 FEET THICK. THE SURFACE RISES GRADUALLY TO 400  
FEET ABOVE SEA LEVEL. THE DISTANCE TO TIDE WATER IS ONE  
MILE. CLIMATE IS MILD WITH YEAR-ROUND OPERATIONS POSSIBLE.  
SECOND GROWTH TIMBER COVERS THE SURFACE. THERE IS VIRTUALLY  
NO OVERBURDEN. A NETWORK OF BASIC IGNEOUS DIKES INTRUDES  
THE LIMESTONE REQUIRING CARE IN QUARRYING TO MAINTAIN GRADE  
WITH STRIPPING OF "SIDE BURDEN", BUT OFFERS NO FORMIDABLE  
PROBLEMS.

PROPOSAL: THE CLAIM OWNER OFFERS THE MINING CLAIMS FOR SALE AND  
WILL GIVE A REASONABLE TIME UNDER OPTION FOR EVALUATION.  
FOR FURTHER INFORMATION CONTACT:

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TEXADA ISLAND LIMESTONE

THE LARGEST DEPOSIT OF LIMESTONE ON THE PACIFIC COAST OF NORTH AMERICA IS LOCATED ON THE NORTHERN PORTION OF TEXADA ISLAND, ABOUT 80 MILES NORTH OF VANCOUVER, BRITISH COLUMBIA. SEATTLE IS 180 MILES SOUTH OF THIS AREA, PORTLAND 400 MILES AND SAN FRANCISCO ABOUT 900. VERY SUBSTANTIAL TONNAGES ARE BEING MOVED INTO LOCAL CANADIAN MARKETS AS WELL AS INTO PUGET SOUND AND COLUMBIA RIVER LOCATIONS. THE DEVELOPMENT AND USE OF LARGE OCEAN GOING BARGES HAS EXPANDED THE ECONOMIC CIRCLE OF TEXADA LIMESTONE AND THE INDUSTRY IN GENERAL IS ON THE VERGE OF FURTHER EXTENDING THIS CIRCLE TO INCLUDE NORTHERN CALIFORNIA BY THE PRACTICAL APPLICATION OF 20,000 TO 30,000 TON BARGES OR LARGER BULK CARRIERS.

THE TREND TO ALMOST UNIVERSAL DEPENDENCE BY THE LIMESTONE CONSUMING INDUSTRIES, ON TEXADA STONE, IS PROMPTED BY THE FACT THAT THE PACIFIC REGION LIMESTONES OF THE UNITED STATES ARE LOCATED TOO FAR INLAND TO COMPETE AGAINST TEXADA'S MASSIVE HIGH CALCIUM DEPOSITS POSSESSING, AS THEY DO, A UNIFORMITY OF CHEMICAL AND PHYSICAL CHARACTERISTIC COMPLEMENTED BY DEEP WATER LOCATION, AN ESTABLISHED LABOUR FORCE AND AN EXCELLENT CLIMATE. ELECTRIC POWER IS IN ADEQUATE SUPPLY AT MAINLAND RATES BY THE BRITISH COLUMBIA HYDRO AUTHORITY. THERE IS A GOOD POSSIBILITY OF NATURAL GAS SUPPLY IN THE PROJECTED PLAN OF THE WESTCOAST TRANSMISSION COMPANY TO SUPPLY GAS TO MAC MILLAN BLOEDEL'S

ALMA BLOEDEL  
MILLAN BLOEDEL  
BLOEDEL'S

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MILL AT POWELL RIVER WITH EXTENSION TO VANCOUVER ISLAND VIA TEXADA. INDEED, TEXADA LIMESTONE IS SUMMED UP IN THE BROCHURE ISSUED BY IDEAL, THE LARGEST CEMENT COMPANY IN NORTH AMERICA, AT ITS SEATTLE PLANT DEDICATION, in 1967:

" OUR EXPLORATIONS IN THE PACIFIC NORTHWEST AND IN FACT ON THE ENTIRE WEST COAST - HAVE CONTINUED FOR AT LEAST TWENTY YEARS. IN 1954 WE PURCHASED OUR FIRST HOLDING OF LIMESTONE ON TEXADA ISLAND NEARLY 200 MILES NORTH OF SEATTLE IN BRITISH COLUMBIA: THROUGH THE YEARS WHILE OTHER CLOSER SOURCES HAVE BEEN SOUGHT, WE HAVE GRADUALLY INCREASED OUR RESERVES ON TEXADA, FINALLY COMING TO THE CONCLUSION THAT THESE OF ALL THE DEPOSITS TESTED ARE BY FAR THE BEST IN QUALITY AND ACCESSIBILITY FOR OUR PURPOSES. OUR PRESENT HOLDINGS IN EXTENT ARE NOW ADEQUATE FOR ANY FORESEEABLE NEED IN THE FUTURE."

THE LIST OF OWNERS AND OPERATORS IN THE TEXADA LIMESTONE BELT IS A PRESTIGIOUS ONE AND IS LISTED HEREUNDER:

- OCEAN CEMENT COMPANY
- DOMTAR COMPANY
- LA FARGE CEMENT OF NORTH AMERICA
- IDEAL CEMENT COMPANY
- KAISER ALUMINUM ( TEXADA MINES )
- IMPERIAL LIMESTONE

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IN ADDITION, THE OREGON PORTLAND CEMENT COMPANY OF PORTLAND, OREGON AND THE LONE STAR CEMENT COMPANY OF SEATTLE ARE COMMITTED TO A COMPLETE LIMESTONE SUPPLY RESPONSIBILITY FROM PRODUCERS ON TEXADA. WITH THE EXCEPTION OF COLUMBIA CEMENT AT BELLINGHAM AND OCEAN AT BAMBERTON, THE ENTIRE CEMENT PRODUCTION INDUSTRY IN THE COLUMBIA RIVER, PUGET SOUND AND BRITISH COLUMBIA AREAS IS PERMANENTLY PREDICATED TO THE USE OF TEXADA STONE. IT IS INDICATED THAT OCEAN IS PLANNING TEXADA SUPPLY WITHIN A 5 TO 10 YEAR PERIOD. SOME SIXTEEN PULP AND PAPER MILLS, THREE STEEL MILLS, TWO LIME PLANTS, A CALCIUM CARBIDE PLANT AND A SCORE OF MISCELLANEOUS CONSUMERS ARE LONG TERM USERS OF TEXADA LIMESTONE. IN 1968 AND 1969, APPROXIMATELY THREE MILLION TONS WERE SHIPPED ANNUALLY, WITH ABOUT 70% GOING TO THE UNITED STATES EXPORT MARKET. IT IS A FAIR ESTIMATE TO PROJECT A COMBINED MOVEMENT OF SIX MILLION TONS BY 1975. EFFECTIVE JANUARY 1, 1968 THE U. S. DUTY ON LIMESTONE, FOR CEMENT USE, WAS ENTIRELY REMOVED AND THE DUTY ON CHEMICAL GRADES WILL BE REDUCED TO A FINAL LEVEL OF \$0.10 PER TON BY JANUARY 1, 1970. THE RESULT OF THIS RECENT TARIFF AGREEMENT HAS BEEN A VERY DISTINCT ENHANCEMENT IN THE VALUE OF TEXADA LIMESTONE.

PROPERTY STATUS ON TEXADA IS PROBABLY THE MOST COMPLEX IN BRITISH COLUMBIA BY REASON OF AN EIGHTY YEAR HISTORY OF MINING ACTIVITY. ORIGINAL DISTRICT LAND LOTS, CROWN GRANT MINERAL CLAIMS AND REVERSIONS, LIMESTONE LEASES AND RECORDED MINERAL

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CLAIMS, WITH VARIOUS SUPERIMPOSITIONS, MAKE IT A CONFUSING AREA. THE ORIGINAL CROWN GRANT DISTRICT LOTS AND CROWN GRANT MINERAL CLAIMS CARRY THE LIMESTONE RIGHTS IN PERPETUITY WITHOUT ROYALTY TO THE CROWN. THE CROWN WILL NOT SELL TITLE TO ITS VACANT LIMESTONE LAND BUT WILL ISSUE LEASE GENERALLY TWENTY ONE YEAR TERM, AT \$10.00 LEASE RENTAL PER ACRE PER YEAR PLUS A ROYALTY OF \$0.10 PER CUBIC YARD, IN PLACE, FOR LIMESTONE REMOVED OR, AT A FACTOR OF 2.25 TONS PER CUBIC YARD, THE ROYALTY PAYABLE WOULD BE .044 PER SHORT TON. RECORDED MINERAL CLAIMS ON VACANT CROWN LAND GIVE THE RIGHTS TO PRECIOUS AND BASE METALS BUT NOT LIMESTONE. HOWEVER, SUCH STAKINGS CONTROL THE GROUND AND PRECLUDE ANY APPLICATION FOR LIMESTONE LEASE UNLESS SPECIFICALLY APPROVED BY THE MINERAL CLAIM HOLDER. HENCE THE HOLDER IS IN THE POSITION OF REFUSING OTHERS BUT ABLE TO CONSENT TO HIS OWN APPLICATION AT ANY TIME. THE COST OF HOLDING A RECORDED MINERAL CLAIM IS \$100.00 ASSESSMENT WORK OR THE SAME AMOUNT ANNUALLY, BY CASH-IN-LIEU OF WORK. CLAIMS CAN BE GROUPED AND WORK, SUCH AS DIAMOND DRILLING, DONE ON ONE CLAIM CAN BE APPLIED TO THE ENTIRE GROUP AND PREPAID TO ANY NUMBER OF YEARS AHEAD. FOR INSTANCE \$10,000.00 SPENT ON A GROUP OF TEN CLAIMS COULD BE REGISTERED TO PREPAY ASSESSMENT FOR TEN YEARS. IN SHORT, IT IS CONSIDERED ADVISABLE TO HOLD LIMESTONE GROUND UNDER RECORDED MINERAL CLAIMS STATUS AS BEING THE MINIMAL COST APPROACH TO MAINTAINING GOOD TITLE UNTIL THE GROUND IN QUESTION IS REQUIRED FOR PRODUCTION.

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T E X A D A I S L A N D L I M E S T O N E

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THE LIMESTONE SYSTEM IS SHOWN ON THE ATTACHED MAPS AS WELL AS A REASONABLE INDICATION OF EXISTING OWNERSHIPS. THE MATERIAL IN THE AREA FROM STURT BAY TO BLUBBER BAY, ON THAT NORTH-EAST PORTION OF THE ISLAND, IS HIGH IN MAGNESIA AND IS NOT CONSIDERED A COMMERCIAL STONE. THIS WAS THE REASON FOR THE ABANDONMENT OF THE B. C. CEMENT ( OCEAN ) QUARRY AT BLUBBER BAY AND THE MARBLE BAY QUARRY AT STURT BAY. THE DOMTAR PROPERTIES ARE BASICALLY CROWN GRANT, THE LA FARGE HOLDINGS ARE CROWN GRANT AND LEASE, THE IDEAL PROPERTIES ARE ABOUT HALF LEASE-HOLD AS ARE THOSE OF OCEAN CEMENT. IMPERIAL LIMESTONE IS ENTIRELY LEASE-HOLD AND HAS OPERATED AS SUCH FOR ABOUT TWENTY YEARS. THE PHILOSOPHY OF PRESENT GOVERNMENTS AT FEDERAL, PROVINCIAL AND MUNICIPAL LEVEL IS TOWARDS THE RETENTION OF TITLE IN THE CROWN AND ENCOURAGEMENT OF LEASE-HOLD TENURES. THIS HAS BECOME A FIRM PART OF CANADIAN POLICY AND IS FULLY RECOGNIZED BY EVERY LEVEL OF THE INVESTMENT AND BUSINESS COMMUNITY AS A VALID BASE FOR PERMANENT PLANNING AND COMMITMENT. IN A PERIOD OF SIX YEARS BETWEEN 1962 AND 1968 THE PROPERTY OWNERSHIP STRUCTURE ON TEXADA CHANGED DRASTICALLY AS THE MAJOR COMPANIES CONSOLIDATED THEIR PLANNING AND ACQUIRED REMAINING CROWN GRANTS, RECORDED MINERAL CLAIMS OVER ALL POTENTIAL PRODUCTION AREAS

*too many of these*

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AND IN CURRENT ANALYSIS, ALMOST COMPLETELY CONTROLLED THE LIMESTONE BELT TO THE EXCLUSION OF ANY ADDITIONAL OPERATORS.

THESE COMPANIES, OF NATIONAL AND INTERNATIONAL STATURE, WILL NOT BE INCLINED TO DISPOSAL OF PROPERTY BECAUSE OF THE DOMINANT DEMAND OF THEIR TYPE OF INDUSTRY, WHICH REQUIRES RAW MATERIAL INSURANCE OVER 100 YEAR TERM.

THE ONLY MAJOR PROPERTY STILL AVAILABLE ON TEXADA HAS HAD A HISTORY OF BEING KNOWN AS OUTSTANDING IN THE QUANTITY AND QUALITY OF LIMESTONE CONTAINED WITHIN ITS BOUNDARIES BUT HAS INHERITED A SUCCESSIVE PATTERN OF INADEQUATE OR PROMOTIONAL OWNERS WHO HAVE FAILED TO REALIZE THE POTENTIAL EXISTING OR TO PUT IT INTO THE HANDS OF AN EXPERIENCED PRODUCTION COMPANY.

LONG TERM PLANNING AND INTRICATE ACCUMULATION OF PROPERTY HAS RESULTED IN THE ASSEMBLY OF A FIRST CLASS MAJOR LIMESTONE PROPERTY ON A BASIS OF COMPLETE CONTROL OF GROUND AT MINIMAL HOLDING EXPENSE. IT IS THE LAST SUCH SITUATION AVAILABLE ON TEXADA AND IT IS OFFERED FOR SALE BY THE SOLE OWNER WHO FOR REASON OF AGE AND INTEREST IN DISPOSAL PRIOR TO POSSIBLE TAX LAW CHANGES, IS WILLING TO OFFER THE ENTIRE HOLDINGS, AS LISTED.

YOUR CONSIDERATION AND COMMENT WILL BE APPRECIATED.

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PROPERTY

CLAIM HOLDINGS. THE PROPERTY IS ADVANTAGEOUSLY LOCATED AND IS A LOGICAL TERMINUS FOR ANY PRODUCTION ACTIVITY. THIS UPLAND PARCEL PROVIDES A STRATEGIC KEY LOCATION FOR OPERATIONAL UTILIZATION AND DEEP WATER-FRONT DEVELOPMENT ON MALASPINA STRAITS. MOREOVER, IT IS A DESIRABLE PIECE OF SHORE-LINE REAL ESTATE WITH A RUNNING STREAM AND HAS CONNECTION BY ROAD TO THE TOWN OF VANANDA.

THE WILL 2, 3, 4, 5, 6 AND THE KELLY JO FR. COVER THE LIMESTONE AREAS ON DISTRICT LOTS 418 AND 458-A THEREBY ESTABLISHING THE OWNER AS SOLE CANDIDATE FOR ANY ENSUING LIMESTONE LEASE OR LEASES. AREA UNDERLAIN BY LIMESTONE IS ESTIMATED TO BE ABOUT 160 ACRES. THE MOLLY, JOE AND WILLY CLAIMS ARE FOR ACCESS CONTACT TO TIDE-WATER AND FOR UTLIMATE PROPERTY SECURITY. IT IS PROBABLE THAT A CONVEYOR BELT SYSTEM FROM THE LIMESTONE TO THE LOADING POINT WILL BE THE MOST EFFECTIVE METHOD OF MATERIAL HANDLING. RECENT PROVINCIAL LAND POLICY ALLOWS FOR A RIGHT-OF-WAY LEASE TO BE CONVERTED INTO CROWN GRANT TITLE ON THE BASIS OF PERMANENT IMPROVEMENTS SHOWING COMPLETION OF INTENT. THEREFORE, THE MINERAL CLAIM HOLDINGS ALLOW FOR LEASE OF RIGHT-OF-WAY WHICH IS CONVERTIBLE TO CROWN GRANT, UNDER CERTAIN CONDITIONS. SIMILARLY, ANY AREA ON THE MINERAL CLAIM HOLDING, REQUIRED FOR PLANT OR PRODUCTION SITE USE MAY BE INITIALLY LEASED AND SUBSEQUENTLY PURCHASED AT A NOMINAL PRICE PER ACRE, WHEN AGREED DOLLAR COMMITMENTS ON PERMANENT IMPROVEMENTS IN PHYSICAL PLANT HAVE BEEN ACCOMPLISHED.



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THEREFORE, THE CURRENT PROVINCIAL GOVERNMENT POLICY WOULD PERMIT ACQUISITION OF FEE SIMPLE OR INDEFEASIBLE TITLE ON PLANT SITE WHEREVER SITUATED ON THE MINERAL CLAIMS AS WELL AS SIMILAR TITLE TO A RIGHT-OF-WAY CONNECTING TO THE EXISTING FEE SIMPLE WATER FRONT AREA AT PARCEL "C". THE BASIC LIMESTONE PRODUCTION AREA WOULD REMAIN AS A LEASE. THE 17 MINERAL CLAIMS ARE CONTIGUOUS AND ARE GROUPED SO THAT EXPLORATORY DRILLING COSTS OR ROAD CONSTRUCTION COSTS MAY BE FILED AGAINST THE GROUP AND THEREBY PERMIT PRE-PAYMENT OF THE \$100.00 ANNUAL PER CLAIM ASSESSMENT. THE ENTIRE GROUP OF 17 CLAIMS ARE PREPAID AND IN GOOD STANDING UNTIL JUNE, 1971.

LOTS 418 - 458 - A

THE GEOLOGY OF TEXADA ISLAND LIMESTONE IS ABLY DESCRIBED IN BULLETIN NO. 40 "CALCAREOUS DEPOSITS OF SOUTHWESTERN BRITISH COLUMBIA" WHEREIN THE DEPOSITS ARE CATEGORIZED AS BEING IN THREE MEMBERS, EACH SEVERAL HUNDRED FEET THICK, WITH THE FIRST AND LOWERMOST BEING COMPOSED ALMOST EXCLUSIVELY OF HIGH CALCIUM LIMESTONE. ALL THE DEPOSITS ARE COMPLICATED BY INTRICATE DYKE STRUCTURES. DEPTH OF THE DEPOSITS IS NOT KNOWN ALTHOUGH THE MARBLE BAY MINE WAS STILL IN LIMESTONE AT 1700 FEET WHEN ABANDONED AND A VERTICAL DIAMOND DRILL HOLE WAS COMPLETED BY ONE OF THE COMPANIES, IN FIRST MEMBER GROUND AT 700 FEET.

LOTS 418 - 458 - A

LOTS 418 AND 458 -A ARE DISTINCTLY IN THE FIRST MEMBER CATEGORY AND ARE LESS ENCUMBERED BY INTRUSIVE DYKES THAN THE PROPERTIES PRESENTLY BEING OPERATED BY OTHERS. THE PHYSICAL EVIDENCE IN THE TERRITORY AS A WHOLE IS ALMOST CONCLUSIVE THAT THE LIMESTONE WOULD EXTEND AT LEAST 500 FEET IN DEPTH OR ABOUT SEA-LEVEL. THE QUANTITY CAN CONSERVATIVELY BE ESTIMATED AT 150 MILLION TONS AND THE CHEMICAL GRADE WOULD AVERAGE A MINIMUM OF 95% CALCIUM CARBONATE WITH LESS THAN 1% MAGNESIUM OXIDE AND LESS THAN 2% SILICA. VERY SUBSTANTIAL QUANTITIES OF 97% AND 98% CALCIUM CARBONATE STONE WOULD BE ENCOUNTERED FOR DISPOSAL INTO CHEMICAL MARKETS. THE ATTACHED REPORT AND DIAMOND DRILL RESULT IS MINIMAL IN SCOPE BUT INDICATIVE OF THE DEPOSIT. THE OWNER FEELS THAT THE CONFIDENCE AND SUBSTANTIAL INVESTMENT OF OTHER MAJOR OPERATING COMPANIES IN THE IMMEDIATE AREA IS SATISFACTORY EVIDENCE OF THE IMPORTANCE OF THE TERRITORY AS A WHOLE. THERE IS NO DOUBT THAT A LARGE VOLUME HIGH QUALITY PROPERTY EXISTS BUT A MORE THOROUGH PROGRAM TO DEFINE THE SPECIFIC REQUIREMENTS OF A PARTICULAR INDUSTRY WOULD BE NECESSARY PRIOR TO COMMENCING OPERATIONS.

THE TERRAIN IS SUITABLE FOR THE ESTABLISHMENT OF A MODERN FACILITY FOR QUARRYING, CRUSHING, CONVEYING AND BARGE LOADING AT MODERATE CAPITAL COST FOR ACCOMPLISHMENT OF LOW PRODUCTION UNIT RESULT.