Confidential - not to be circulated.

PROOF No. 11

This prospectus is not, and under no circumstances is to be construed as, a public offering of any of these securities for sale in the United States of America or in the territories or possessions thereof.

**NEW ISSUE** 

37

## \$4,500,000

# REXSPAR MINERALS & CHIMICALS LIMITED

(Incorporated under the laws of the Province of Ontario)

## 61/2% First Mortgage Sinking Fund Bonds

(Carrying a bonus of shares)

To be dated

1959

To mature March 1, 1963

#### PAYMENT AND REDEMPTION

Principal of and half yearly interest (September 1 and March 1) and redemption premium, if any, on the 6½% First Mortgage Sinking Fund Bonds be payable in lawful money of Canada at par at any branch in Canada of the Company's bankers (far northern branches excepted). The 6½% First Mortgage Sinking Fund Bonds will be issued as coupon bonds in denominations of \$500 and \$1,000 and multiples thereof registrable as to principal only and as fully registered bonds in denominations of \$1,000 and authorized multiples thereof.

The 6½% First Mortgage Sinking Fund Bonds will be redeemable (otherwise than out of sinking fund moneys or out of the Project Fund referred to in this prospectus) prior to maturity at the option of the Company in whole at any time or in part from time to time by lot, on not less than 30 days' notice at the principal amount thereof plus a premium of 5½% of such principal amount up to and including February 16, 1960, thereafter the premium decreasing 1½% of such principal amount for each year commenced or elapsed up to and including March 1, 1962; and thereafter and prior to maturity at the principal amount thereof; and redeemable out of sinking fund moneys and in certain cases out of the Project Fund at the principal amount thereof; together in each case with accrued interest to the date specified for redemption.

#### SINKING FUND

The Company will covenant in the deed of trust and mortgage pursuant to which all the 6½% First Mortgage Sinking Fund Bonds are to be issued to establish a sinking fund for the \$4,500,000 principal amount of 6½% First Mortgage Sinking Fund Bonds for the retirement of \$1,000,000 principal amount thereof on or before December 31, 1960, an additional \$1,000,000 principal amount thereof at maturity.

Trustee — The Montreal Trust Company
Registrars and Transfer Agents — Shares:
Chartered Trust Company, Halifax, Montreal, Toronto and Winnipeg
The Toronto General Trusts Corporation, Vancouver

We, as principals, offer the 6½% First Mortgage Sinking Fund Bonds if, as and when issued by the Company and accepted by us, subject to prior sale or change in price and subject to the approval of all legal matters on our behalf by Messrs. Common, Howard, Cate, Ogilvy, Bishop, Cope, Porteous & Hansard, Montreal, and on behalf of the Company by Messrs. Fasken, Robertson, Aitchison, Pickup & Calvin, Toronto, and by Messrs. Kennedy, Andrews & Taylor, Kamloops, B.C., on whose opinion as to title and security our Counsel and Counsel for the Company may rely.

PRICE • and accrued interest to yield • per cent

Carrying a bonus of shares per \$500 principal amount of 6½% First Mortgage Sinking Fund Bonds

Subscriptions will be received subject to rejection or acceptance in whole or in part and the right is reserved to close the subscription books without notice.

It is expected that 61/2% First Mortgage Sinking Fund Bonds and Shares interim or definitive form and will be available for delivery or on about •

No person is authorized by the Company or by us to give any information or to make any representation, other than those contained in this prospectus, in connection with the issue and sale of these 6½% First Mortgage Sinking Fund Bonds and bonus shares and if given or made, such information or representation cannot be relied upon as having been authorized by the Company or by us.

This prospectus is not, and under no circumstances is to be construed as, a public offering of any of these securities for sale in the United States of America or in the territories of possessions thereof.

#### **NEW ISSUE**

## \$2,000,000

# REXSPAR MINERALS & CHEMICALS LIMITED

(Incorporated under the laws of the Province of Ontario)

## 7% Sinking Fund Debentures Series A

Carrying Common Share Bonus

To be dated March 1, 1959

To mature September 1, 1963

#### SINKING FUND

The Company will covenant to establish a Sinking Fund for the retirement of \$1,000,000 principal amount of Series "A" Debentures on March 1st, 1963 and the balance of \$1,000,000 at maturity.

Trustee — The Montreal Trust Company

We, as principals, offer the 7% Sinking Fund Debentures Series "A" if, as and when issued by the Company and accepted by us, subject to prior sale or change in price and subject to the approval of all legal matters on our behalf by Messrs. Common, Howard, Cate, Ogilvy, Bishop, Cope, Porteous & Hansard, Montreal, and on behalf of the Company by Messrs. Fasken, Robertson, Aitchison, Pickup & Calvin, Toronto, and by Messrs. Kennedy, Andrews & Taylor, Kamloops, B.C., on whose opinion as to title and security our Counsel and Counsel for the Company may rely.

PRICE • and accrued interest to yield • per cent

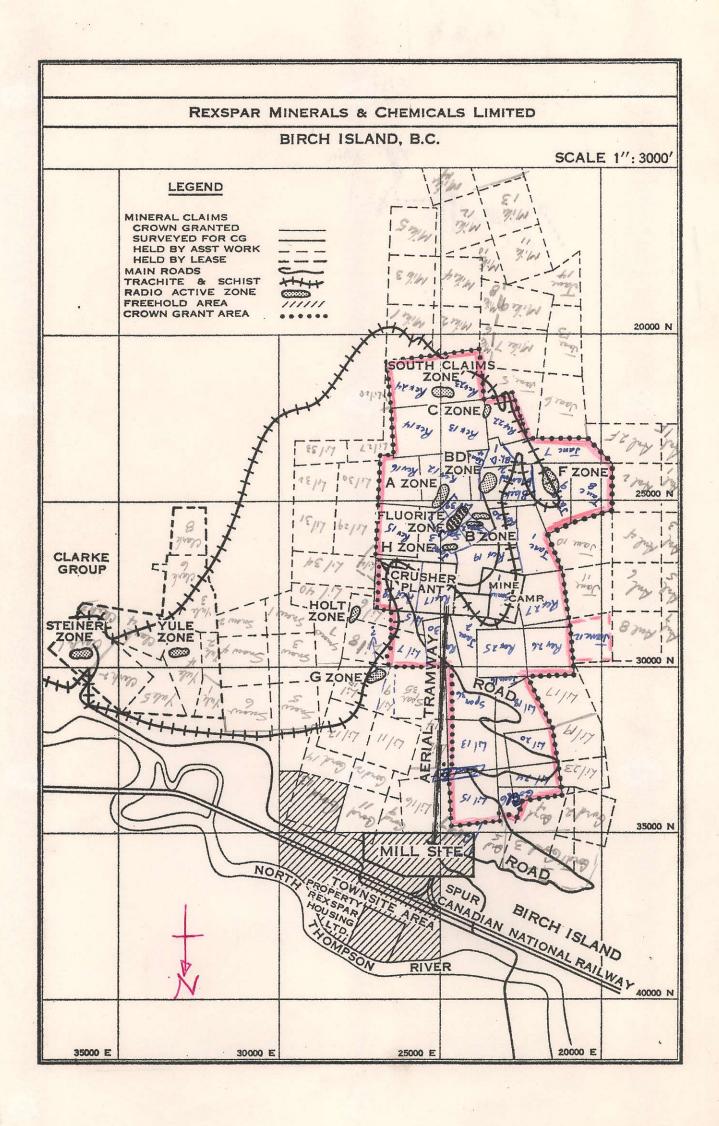
Carrying a bonus of shares per \$500 principal amount of 7% Sinking Fund

Debentures Series "A".

Subscriptions will be received subject to rejection or acceptance in whole or in part and the right is reserved to close the subscription books without notice.

It is expected that 7% Sinking Fund Debentures Series "A" and shares in interim or definitive form will be available for delivery on or about •

No person is authorized by the Company or by us to give any information or to make any representation, other than those contained in this prospectus, in connection with the issue and sale of these 7% Sinking Fund Debentures Series "A" and bonus shares and if given or made, such information or representation cannot be relied upon as having been authorized by the Company or by us.



#### REXSPAR MINERALS & CHEMICALS LIMITED

Montreal, Quebec, June 5, 1959

F. J. Brennan & Company Limited, 85 Prince William Street, Saint John, New Brunswick.

#### Dear Sirs:

With reference to the proposed issue of \$4,000,000 principal amount of 6½% First Mortgage Sinking Fund Bonds (herein sometimes referred to as the "First Mortgage Bond" or "Bonds") and \$2,500,000 of 7% Sinking Fund Debentures and 1,300,000 shares of Rexspar Minerals & Chemicals Limited (hereinafter sometimes referred to as the "Company"), we are pleased to subdit the following information.

#### THE COMPANY

The Company was incorporated in 1951 under the laws of the Province of Ontario to engage in the exploration for and the development, production and treatment of minerals.

#### **CAPITALIZATION**

(Upon completion of the proposed financing)

	Authorized	Outstanding
First Mortgage Bonds		·
61/2% First Mortgage Sinking Fund Bonds matur-		
ing March 1, 1963	\$4,590,000	\$4,500,000
7% Sinking Fund Debentures	3,500,000 (1)	2,000,000
Shares with a par value of \$1.00 each	$6,500,000 \mathrm{~shs}.$	$5,800,000  \mathrm{shs.}  (^2)$

<sup>(1)</sup> Additional Sinking Fund Debentures up to a principal amount of \$1.590.000 may be issued upon and subject to the restrictions to be set forth in the hereinafter mentioned Trust Deed.
(2) This includes the 1,300.000 shares accompanying the Bonds and Debentures offered by this prospectus.

#### **PROPERTY**

The Company's principal property is situated near the North Thompson River in the vicinity of Birch Island, British Columbia, about 380 miles north east of Vancouver and about 90 miles from Kamloops. It has rail and road facilities immediately available to it.

The property is outlined on the map forming part of this prospectus. It comprises the mill plant property which is owned free-hold by the Company and the mining area. The mining area comprises 124 contiguous mineral claims, including fractions, in the Kamloops Mining Division. Of these mineral claims, 40 are held under Crown Grant, 73 are held by location, and 11 are held under lease from Deer Horn Mines Limited subject to a royalty of fifty cents per ton of ore milled from the said 11 claims. The Company has located by drilling on certain of these mineral claims (hereinafter sometimes referred to as the "Contract Properties") indicated uranium-bearing ore bodies with respect to which the Company obtained the contract from Eldorado Mining and Refining Limited more particularly hereinafter referred to on pages 3 and 4 hereinafter referred to on pages 3 and 4.

#### **URANIUM**

Uranium-bearing ore was first indicated on the Contract Properties in 1949 through an examination of fluorite specimens. Detailed surface examination, stripping and trenching indicated a number of ore-bearing outcrops of sufficient merit to warrant further investigation by diamond drilling.

Surface diamond drilling to date totals 50,241 feet. Most of the development work has been done on three principal zones, known as the "A" Zone, the "B" Zone and the "BD" Zone. It is contemplated that mining from each of these zones will be done chiefly by open pit methods.

Underground development work to date includes 8,304 feet of diamond drilling, 1,709 feet of drifting and cross cutting and 471 feet of raising. It is estimated that the "A" Zone contains approximately 744,810 tons of ore with an average grade of 1.56 U<sub>3</sub>O<sub>8</sub>; that the "B" Zone contains approximately 227,628 tons of ore with an average grade of 1.66 U<sub>3</sub>O<sub>8</sub>; and that the "BD" Zone contains approximately 713,203 tons of ore with an average grade of 1.52 U<sub>3</sub>O<sub>8</sub>, in each case after application of the appropriate dilution factor for open pit or underground development, as the case may be, and after appropriate allowages for pillage for underground development. In the aggregate, the indicated towages from these three ance for pillars for underground development. In the aggregate the indicated tonnage from these three zones, both open pit and underground, is approximately 1,685,641 tons of ore.

Additional radioactive zones have been located on the Contract Properties by limited exploratory drilling and surface trenching.

#### OTHER ORE DEPOSITS AND THEIR POTENTIAL **FLUORSPAR**

The Company has on its property a major deposit of fluorspar estimated to contain approximately 2.000,000 tons of ore based upon results from 5000 feet of diamond drilling. The deposit is 300 feet wide, 100 feet thick, 500 feet long and open at one end. The Company's aireal tramway is adjacent to this deposit. The operation will be an open pit one. Mining and Transportation costs should therefore be very economical.

The fluorspar deposit way prove to be a valuable asset for the Company and may add considerably to the carnings of the Company. The ore body may be as much as 10% of the known deposits of the U.S.A. and a considerable part of the known economic deposits of fluorspar in Canada. This ore is the raw material for the manufacture of fluorine, freon gas used for refrigeration, hydrofluoric acid and fluorocarbonates — all the basis for the dayslopment of a chemical industry. bonates — all the basis for the development of a chemical industry.

Fluorine Chemistry has a challenging potential and is one of the more fertile areas of investigation in chemistry. Fluorine is now capable of bulk shipping. It is the most powerful oxidizing agent known, reacting with practically all inorganic substances. Organic products containing fluorine are exceptional ly resistant to high temperatures and corrosion. Itappears to be a superior rocket propellant because of its low atomic weight and its greater thrust.

The use of fluorine in high energy chemicals is still in its formative stages but fluorocarbons employed in aerosols and refrigerants are currently enjoying one of the steepest prosperity curves in industry, which is encouraging for our company, prossessed of so large a deposit of fluorspar. Total aerosol sales in the U.S. have increased over 30% per year since 1951. The same basic materials employed in aerosols are used in refrigerants with a growth factor of 15% per annum.

Acrosol sales in the U.S. are currently running at \$400,000,000 per year with projected sales for 1962 at one and one half billion dollars per year.

The push button aerosol bomb now packages and dispenses such diverse products as insecticides, lacquers, room fresheners, paints, cosmetics, dentifrices, laundry aids, plastic sprays, women's hair sprays, shaving lathers, room deodorants and household insecticides. A new and wider consumption is envisaged when propellants containing fluorine are cleared for use in food products. Progress is being made in eliminating present objections in what is obviously a vast potential market.

Fluorocarbon plastics are also a growing leld of chemical development. They are self lubricating and almost impervious to heat and acid corrosion. The uses for fluorocarbonates, the newest U.S. chemical material seem almost limitless. Intensive research along these lines is now under way by leading chemical companies.

The use of fluorine in water treatment is also growing. In 1951 only 94 communities in the U.S. fluorinated their water. In 1959: 1650 towns and cities provided fluorinated water to the public.

High test aviation gasoline and newer petro-chemicals are produced by the use of hydrofluoric acid as a catalyst.

Fluorspar is also used as a flux in the steel and aluminum industries as yet this is the largest constant use.

#### STRONTIUM SULPHATE

It is estimated that the Company will have a quantity of strontium sulphate, approximately one million tons. This comes in combination with the fluorspar. Upon separation, it will become a by-product, which may make this very attractive economically in competition with Barium whose consumption is growing annually, whilst known reserves are being depleted. Barium sells at approximately \$13.75 per ton in Nova Scotia.

The uses envisaged for Strontium Sulphate are the following: (1) as flares in Tracers (2) in the beet sugar industry (3) as filler in the paint and other industries (4) to desulphur iron contaminated with sulphur (5) in the electronic industry (6) as an alloy because of its high melting point 4300° F. and as a mudpack in the oil fields only a few hundred miles distant — as the specific gravity of strontium sulphate is 3.95 as against 4 of barium. This by-product opens up interesting possibilities for added earnings.

#### **PYRITES**

There are millions of tons of pyrites upon this property. This is source material for sulphuric acid—an important raw material in the chemical industry. This pyrite deposit may in the future represent an economic potential. Although no attempt is being made at present to evaluate this deposit.

#### RARE EARTHS

A spectographic analysis of our ore has shown the presence of a number of rare earth metals—(1) cerium, (2) samarium, (3) gadolinium, (4) dysprosium, (5) ytterbium, (6) lanthanum, (7) yttrium, (8) thorium. These would all be by-products running into millions of pounds. Development work on the Rare Earths to find new uses and applications is in process with Batelle Memorial Institute at the instance of 7 leading American Chemical Companies who have allotted \$140,000 for a 2 year research programme. It is now clear that there will be a market for their use in the electronic industry and as high temperature metal alloys.

Thorium at \$10,50 per lb. is now used as an alloy with uranium metal thereby cutting down the loss of uranium by 1% in the regenerating process in the re-actors. Lanthanum is used as a super-conductor in the electronic industry.

It is expected that there will be an ever increasing demand for rare earths. Whilst this cannot be evaluated at the present time. It provides the company with possible long term added earnings.

## SURFACE PLANT CONSTRUCTION PROGRAMME

As indicated by the map forming part of this Prospectus the total operation will consist of:the mine and nearby crushing plant, the aerial tramway which connects the crushing plant to the mill, and the mill itself. The chief components of the mill are the solvent extraction plant, grinding plant, steam plant, air compressors and the leaching plant.

Considerable work has been carried out in surface development and on transportation facilities and roads in preparation for plant construction. Topographical surveys of the mill site and other areas have been completed and maps supplied to design engineers.

Plant layout has been prepared, mill site cleared and stripped of topsoil, and the area graded preparatory to building construction. Sub-surface strata has been tested showing satisfactory conditions for building and machinery foundations.

A gravel pit has been opened up near the plant site and aggregate stockpiled for use in building

foundations. The grinding plant foundations, including necessary sumps, have been poured.

The main water supply line from the North Thompson River to the mill site has been surveyed, cleared, grubbed and 700 foot trench has been dug. In addition a short tunnel has been driven and a raise system laid out to tap running springs in the mine camp area for a year round water supply, replacing the existing long pipe line.

Railway siding trackage has been laid connecting the mill site with the Canadian National Rail-

way line. All deliveries of U<sub>3</sub>O<sub>8</sub> are to be made f.o.b. rail siding.

Access roads have been built, connecting with existing public roads both to the east and west of the mill site. Access roads have seen built, connecting with existing public roads both to the east and west of the mill site. Access roads have also been built to all aerial tramway tower sites. A 1½ mile section of the road between Birch Island and the mill site has been relocated to eliminate steep grades. A haulage road from the "A" Zone pit to the site of the crushing plant has been surveyed and roughed out by bulldozer. Roads to the "B" Zone and to the Company's limestone quarry have been located.

An aerial tramway route 70 feet in width has been surveyed and cleared for a total length of

9,000 feet from the site of the crushing plant to the mill site. A used aerial tramway has been purchased and is on site but has not yet been erected. The erection of the aerial tramway will be under the supervision of R.H. McLellan & Co. Ltd., Consulting Engineers.

The "A" and "B" Zone open pit areas have been cleared. Service buildings and employees tempor-

ary accomodation at the mine have been constructed.

Plans for the grinding plant, leaching towers, warehouse and office building have been prepared, as well as foundation plans for the leaching plant building and compressors.

#### PILOT PLANT

Pilot plant test work prior to 1957 indicated that conventional acid or carbonate leaching meth-

Pilot plant test work prior to 1957 indicated that conventional acid or carbonate leaching methods were not applicable to the Company's ores and accordingly work was directed towards developing what appeared to be the most suitable method, namely, an acid pressure leaching process. This work was carried on during the early part of 1957 when pilot plant testing of the Company's ore was done with satisfactory results at the Fort Saskatchewan plant of Sherritt Gordon Mines Limited. Further test work was carried out by the Department of Mines at Ottawa.

It was found that, in general, batch leaching of the ore, after suitable grinding, showed excellent extraction of uranium with short leaching times, but that corrosion and erosion of the equipment used were severe. A further pilot plant was set up at the Department of Mines at Ottawa, to determine what materials for use in the leaching towers would prove most resistant to corrosion and erosion. Through no fault of the Company, test work at this pilot plant was delayed due to late delivery of certain equipment. However, this work has now been completed and appears to have resolved satisfactorily the problems of corrosion and erosion and has also provided the Company's engineers with firm design factors for the leaching towers. By reason of the information obtained during the testing at this pilot plant, it is expected that the originally anticipated one year tune-up period for the Company's plant will be reduced to not more than six months. plant will be reduced to not more than six months.

#### **ELDORADO CONTRACT**

Under a contract (herein called the "Eldorado Contract") dated as of January 14, 1957, between Eldorado Mining and Refining Limited (herein called "Eldorado") and the Company, the Company has agreed to sell and Eldorado has agreed to purchase on the terms and conditions therein set forth uraniumbearing concentrates produced by the Company from the Contract Properties having a total UaOs content of 2,053,125 pounds to be delivered (subject to change from time to time by mutual agreement) in carload quantities f.o.b. railway cars on the railway siding closest to the Company's operating property. If deliveries of these concentrates having a total U<sub>3</sub>O<sub>8</sub> content of 2,053,125 pounds are made under the Eldorado Contract it is estimated that the gross revenue therefrom will be \$21,557,812. This estimate of gross revenue is based on a price of \$10.50 per pound. This is the price stipulated in the Eldorado Contract with respect to concentrates delivered prior to April 1, 1962. With respect to concentrates delivered subsequent to March 31, 1962 and prior to April 1, 1963 the price according to the Eldorado Contract shall be the lesser of:

(a) \$10.50, or

(b) \$8.00 U.S. or such higher price as may be published by the United States Atomic Energy Commission in revision of its domestic programme announced May 24th, 1956, for U<sub>3</sub>O<sub>8</sub> in concentrates, as applicable to contemporaneous deliveries under the said programme, plus \$2.77

The Eldorado Contract provides, amongst other things, in effect that (a) the Company shall use its best endeavours to commence deliveries of concentrates about March 1958 and shall complete such deliveries by March 31, 1963; (b) the Company shall deliver to Eldorado concentrates containing at least 97,800 pounds of U<sub>3</sub>O<sub>8</sub> during the period of six months beginning with the date when deliveries are first commenced and shall deliver concentrates containing approximately 34,315 pounds of U<sub>3</sub>O<sub>8</sub> each month thereafter until the total amount to be delivered under the Eldorado Contract shall have been delivered but in any event deliveries shall be completed not later than March 31, 1963; (c) the price payable under the Eldorado Contract is subject to adjustment in the manner provided therein to recognize in some degree the fluctuations which may occur in wage rates in the metal mining industry (other than gold); and (d) Eldorado has the option, to be exercised on or before March 31, 1961, to extend the Eldorado Contract and to purchase a quantity of U<sub>3</sub>O<sub>8</sub> in concentrates thereunder not in excess of an

amount determined by multiplying 1125 pounds by the number of days between the date of completion of deliveries of 2,053,125 pounds or March 31, 1963, whichever is earlier, and December 31, 1966.

In the event such option is exercised, deliveries will be at an approximate rate of 33,750 pounds per month, it being understood that the contract will be extended by a period, running in no case beyond December 31, 1966, sufficient to allow completion of deliveries at said monthly rate. In such event, the price per pound to be placed by Eldorado for U<sub>3</sub>O<sub>8</sub> in concentrates meeting the specifications of the United States. Atomic Energy Commission under its domestic uranium concentrate procurement programme announced May 24, 1956, shall be the price in United States currency which the United States Atomic Energy Commission guarantees under said programme to domestic producers for similar purchases, applicable to contracts for deliveries commencing on or soon after April 1, 1962 (which price is presently \$8 U.S. per pound)

A STANCE V

and shall be payable in U.S. funds. If such last mentioned contracts normally contain provision to allow the producers generally to benefit from possible subsequent increases in the said price, a similar provision will be included in the contract extension with the Company made by the exercise of this option. For concentrates failing to meet the above mentioned specifications, there will be an appropriate price adjustment.

Based on a recoverable grade of 1.33 pounds U<sub>3</sub>O<sub>8</sub> per ton, 1,540,229 tons of ore will be required to produce concentrates containing 2,053,125 pounds of U<sub>3</sub>O<sub>8</sub>, the subject of the Eldorado Contract.

#### Status of Contract

Reference has been made to the work done by the Company since the signing of the Eldorado Contract. Performance of this work, the Company considers, amounts to using its best efforts to commence delivery of concentrates within the terms of the Eldorado Contract. While there has been a delay in the commencement of deliveries the Company takes the view that the Eldorado Contract is a valid and subsisting contract under which it is obliged to sell and Eldorado is obliged to purchase uranium-bearing concentrates produced from the Contract Properties with a total U<sub>3</sub>O<sub>8</sub> content of 2,053,125 pounds. Eldorado has informed the Company that it will abide by the terms of the Contract, which Contract speaks for itself, but failure by Eldorado to comment on the letters written and reports made to it with reference to the steps taken by the Company to commence production must not be regarded as acquiescence by it in the Company's position. Completion of the Company's development and construction programme within the time contemplated by the Company will enable it to carry out its obligations under the Eldorado Contract. Eldorado has consented to the Company granting, conveying, assigning, transferring, mortgaging, pledging and charging as and by way of a specific mortgage, pledge and charge to and in favour of the Trustee, under the deed of trust and mortgage herein called the "Trust Deed" securing the Bonds, of all the right, title, interest and benefit of the Company in, to and arising out of the Eldorado Contract.

In the event that the Company is obliged to sell any of its concentrates in the free market, the Company considers that it will be in a favourable competitive position by reason of its expected low cost of production, estimates of which are set forth in the report of S.M. Manning, P.Eng., Mining Engineer, Appendix I on pages 12 and 13 of this prospectus.

#### PURPOSE OF ISSUE

The net proceeds from the sale of the Bonds and Debentures and the 1,300,000 shares covered by this prospectus will be used to finance the development of the Company's mine, construction of its plant and to provide working capital. In implementation thereof such proceeds amounting in the aggregate to \$5,894,200 will be paid into the Project Fund described on page 6 hereof. The details of the amounts involved are summarized below.

#### ESTIMATE OF ADDITIONAL CAPITAL COSTS

(for the period commencing January 1, 1959)

The Company has expended to December 31, 1958, \$211,034 on buildings, machinery and equipment, \$12,190 (including 825,000 shares issued at par) in the acquisition of mining properties and claims and \$1,305,803 on preproduction, exploration and development expenses, including administrative expenses and \$37,116 additional expenses to February 16, 1959. These expenditures are not included or reflected in the following estimates.

A detailed statement of the estimated additional capital costs required to develop, construct and bring the Company's mine and mill into production is set forth in the report on the milling plant by Wright Engineers Ltd., Appendix II, in the report on mining equipment by John W. Scott, the Company's mine manager, Appendix VI, in the report on leaching and solvent extraction plant by Ball, Craig, Short and Company Ltd., consulting engineers, Appendix IV and in the report on the aerial tramway by Robert McLellan & Co. Ltd., consulting engineers, Appendix V hereto. A summary follows:

McLellan & Co. Ltd., consulting engineers, Appendix V hereto. A summary follows:	·
Mining Equipment	\$ 73,000
Milling Plant and Equipment	
Leaching and Solvent Extraction Plant	
Aerial tramway	
Housing	30,000
Working capital, inventory and supplies	
	\$5,365,408
	<b>\$0,000,400</b>
SOURCE AND APPLICATION OF FUNDS (from January 1, 1959)	
Source of Funds:	
Gross proceeds to the Company from the sale of the 6½% First Mortgage Bonds, 7% Sinking Fund Debentures and 1,300,000 shares	\$5,877,300 33,032
Current assets, as per Pro-Forma Balance Sheet	\$5,910,332
Application of Funds:	
Capital costs, as estimated in the reports referred to above	\$4,965,408
Working capital, inventory and supplies	400,000
Expenditures for the period January 1, 1959 to February 16, 1959	15,133
Current liabilities, as per Pro-Forma Balance Sheet	96,476
Net estimated interest charges on 6½% First Mortgage Bonds, and Debentures February	00,270
16, 1959 to December 15, 1959 less estimated interest earned on Project Fund and	979 918
Debentures	373,315
Estimated financing expenses	60,000
	<b>\$5,927</b> ,232

#### ESTIMATED OPERATING COSTS PER TON AT VARIOUS TONNAGE RATES

Operating costs (before mining tax, interest, amortization of bond discount, write off of preproduction expenditures, depletion, depreciation and taxes on income) are estimated as follows:

Production rate — tons per day	750	1235
Mining costs	\$1.41	\$1.41
Milling costs	5.73	4.50
Overhead	.26	.16
	7.40	6.07

The above estimated operating costs are based on estimates contained in the engineering reports set forth in Appendices I - VI on pages 8 to 21 of this prospectus.

#### SHERRITT GORDON MINES LIMITED CONTRACT

By Agreement dated July 31, 1957 Sherritt Gordon Mines Limited (herein called "Sherritt") granted to the Company during the term of the Agreement a non-exclusive right and license to use in the leaching of its uranium ores any and all patents and processes owned or controlled by Sherritt in consideration whereof the Company agreed to pay Sherritt a royalty of 5 cents per dry ton (2,000 pounds) of ore milled, the treatment of which involved the use of any such licensed patents or processes. Sherritt agreed at the request and expense of the Company to advise on the design and construction of the leaching section of the Company's plant. Sherritt also agreed to assist the Company in the initial operations of the leaching section and, at the expense of the Company, to send experienced personnel to the plant for such periods not extending beyond two years following full commercial operation of the plant as the Company might reasonably request.

The Agreement, as amended by letter agreement dated July 15, 1958, is for a term ending upon the expiration of the patents owned or controlled by Sherritt and used by the Company pursuant to the agreement subject to earlier termination by Sherritt upon a breach of the agreement by the Company and failure of the Company to cure such breach upon 60 days' notice, or if the Company has not commenced and is not diligently proceeding with the construction of its plant by December 31, 1959.

#### CANADIAN PATENTS AND DEVELOPMENT LIMITED CONTRACT

By agreement dated January 8, 1957, Canadian Patents and Development Limited granted to the Company a non-exclusive license to use the processes covered by the claims of its patent entitled "Leaching Uranium from Sulphitic Materials" for the treatment of uranium bearing ores in the Company's plant for a royalty at the rate of 5 cents for each dry ton of ore treated at the plant, the treatment of which involved the use of such processes.

#### SUBSIDIARY

Rexspar Housing Limited, a wholly-owned subsidiary of the Company, has been incorporated under the laws of the Province of British Columbia to provide living accommodation for the Company's employees. The surface rights owned by the Company in a parcel of land comprising approximately 310 acres lying to the north of the Canadian National Railway line have been conveyed to Rexspar Housing Limited, of which 17 acres have presently been cleared and levelled for town-site purposes. It is the intention of Rexspar Housing Limited to arrange for the leasing, and subsequent sub-leasing to employees at cost, of trailers which the Company has ascertained are readily available. Rexspar Housing Limited will, at its expense, provide all essential services for such trailers. It is estimated that the cost of providing such services will be \$25,000 and will be paid for out of funds to be supplied to Rexspar Housing Limited by the Company. The Company has allocated \$30,000 out of the Projected Fund for such purpose.

#### CERTAIN PROVISIONS OF THE TRUST DEED

#### Security

The \$6,500,000 principal amount of  $6\frac{1}{2}$ % First Mortgage Sinking Bonds will be direct obligations of the Company, will be issued under a deed of trust and mortgage (herein called the "Trust Deed") to be dated as of February 16, 1959 and to be made between the Company and Montreal Trust Company, as Trustee, and will, in the opinion of Counsel, be secured by:

- (i) a first fixed and specific mortgage, pledge or charge on
  - (a) all the real and immoveable freehold properties, mineral claims and rights now owned by the Company referred to under the heading "Property";
  - (b) the moneys and/or securities from time to time comprising the Project Fund hereinafter summarized; and
  - (c) all the issued and outstanding shares of Rexspar Housing Limited, saving qualifying shares;
- (ii) a specific mortgage, pledge or charge on the Eldorado Contract and all the right, title, interest and benefit of the Company in, to and arising out of the Eldorado Contract, subject only to the Company's right to give prior security thereon to a chartered bank in respect of a future operating revolving credit referred to in paragraph (q) of the statutory information in this prospectus and interest thereon; and
- (iii) a first floating charge and all other property and assets of the Company now owned or hereafter acquired and not validly subjected to the foregoing mortgages, pledges or charges;

the whole subject to an exception as to the last day of the term of any lease or agreement therefor, to permitted encumbrances and minor title defects, to the Atomic Energy Control Act (Canada) and the regulations made thereunder, to the Company's right (subject as aforesaid) to deal with production of

Established in the

uranium-bearing concentrates and other minerals and proceeds from such concentrates and other minerals in the ordinary course of business and for the purpose of carrying on the same free of such specific mortgages, pledges or charges and floating charge until the security constituted by the Trust Deed shall have become enforceable and the Trustee shall have determined or become bound to enforce the same, and to the Company's right (subject as aforesaid) to give security on items included in (iii) under section 88 of the Bank Act (Canada) to a chartered bank (except that such security may not be given on ore which is not broken).

The first fixed and specific mortgage, pledge or charge above mentioned will be expressed to be applicable to all real and immoveable freehold properties, mineral claims and rights and leases hereafter acquired by the Company, subject to the Company's right (subject as aforesaid) to deal with production of uranium-bearing concentrates and other minerals and proceeds from such concentrates and other minerals as above mentioned and to be applicable to the shares hereafter acquired by the Company in subsidiaries.

The said floating charge and the covenants hereinafter referred to will in no way hinder or prevent the Company at any time and from time to time (until the security constituted by the Trust Deed shall have become enforceable and the Trustee shall have determined or become bound to enforce the same) from pledging, selling, alienating, leasing, assigning, charging on otherwise disposing of or dealing with the subject matters of such floating charge in the ordinary course of its business and for the purpose of carrying on the same or from pledging, assigning or giving security or securities on the subject matters of such floating charge (except on fixed assets) to any bank or banks under the Bank Act (Canada) or otherwise, or, in the ordinary course of business, to others for present or future debts or liabilities of the Company to such bank or banks or to such others (provided that such debts or liabilities do not constitute funded obligations) and any such pledge, assignment, security or securities shall rank in priority to the said floating charge.

#### Project Fund

The Trust Deed will provide for the deposit by the Company with the Trustee at the time of the delivery of the 6½% First Mortgage Bonds, Sinking Fund Debentures and said 1,300,000 shares of \$5,894,20. The Trustee will be required under the Trust Deed to invest the said proceeds in bonds, debentures or other evidences of indebtedness (hereinafter collectively referred to as the "deposited securities") authorized as trustee investments. The said deposited securities, together with any moneys from time to time held by the Trustee, shall comprise the Project Fund, shall form part of the specially mortgaged property and shall be withdrawable, subject to certain provisions to be contained in the Trust Deed, from time to time to reimburse the Company for payments theretofore made on account of or to provide the funds for

- (a) costs hereafter incurred by the Company for buildings, machinery and equipment and for other costs necessary to bring the mine and mill on the Company's property into production;
- (b) sums provided by the Company to Rexspar Housing Limited with respect to or for the purpose of providing living accommodation for the Company's employees;
- (c) interest falling due on the 6½% First Mortgage Bonds, and Sinking Fund Debentures in respect of the period from February 16, 1959 to December 15, 1959;
- (d) working capital and all mine and milling inventory and supplies;
- (e) current liabilities including expenditures from January 1, 1959 to February 16, 1959, and financing expenses.

Provided that the amounts which may be withdrawn for the purpose set forth in sub-paragraph (b) above shall not exceed \$30,000, and for the purpose set forth in sub-paragraph (c) above shall not exceed \$373,315, and for the purpose set forth in sub-paragraph (d) above shall not exceed \$400,000 (except that such amount may be increased by \$300,000 out of funds remaining in the Project Fund after payment of all costs contemplated by (a), (b), (c) and (e)) and for the purpose set forth in said paragraph (e) above shall not exceed \$258,992.

above shall not exceed \$258,992.

and provided further that any of the said deposited securities and/or moneys remaining in the Project Fund after the bringing of the Company's mine and mill into production and not required for the foregoing purposes will be applied by the Trustee towards the retirement of 6½% First Mortgage Bonds by call for redemption at the principal amount thereof together with accrued interest to the date specified for redemption provided that such call need not be made if the market value of such last mentioned securities and such moneys is less than \$25,000 and in such case the proceeds thereof may be used by the Trustee in purchasing for cancellation 6½% First Mortgage Bonds at a price not exceeding the redemption price current at the time of purchase in respect of 6½% First Mortgage Bonds redeemed at the option of the Company plus accrued interest and costs of purchase.

#### Sinking Fund

The Company will covenant in the Trust Deed to establish a sinking fund for the retirement of \$2,000,000 principal amount of 6½% First Mortgage Bonds prior to maturity as follows: \$1,000,000 principal amount thereof on or before December 31, 1960 an additional \$1,000,000 principal amount thereof on or before December 31, 1961, and \$2,000,000 principal amount thereof at maturity.

All 6½% First Mortgage Bonds purchased or redeemed by the Company, except 6½% First Mortgage Bonds purchased or redeemed out of sinking fund moneys, shall, notwithstanding the cancellation thereof, be available to the Company as a sinking fund credit against the sinking fund payments to be made in respect of the 6½% First Mortgage Bonds. Such sinking fund credit may, at the election of the Company, be applied (to the extent not therefore applied) in amounts sufficient to retire 6½% First Mortgage Bonds

in principal amounts of \$500 and multiples thereof in satisfaction in whole or in part of the required sinking fund payments payable thereafter. The Company may elect, on or before any sinking fund payment date, to apply a specified amount of 6½% First Mortgage Bonds forming part of such credit at the principal amount thereof plus accrued interest to such date, in satisfaction in whole or in part of sinking fund payment required to be made on such sinking fund payment date. To the extent that the credit so applied does not satisfy the whole of the sinking fund payment to be made on such sinking fund payment date, the Company shall pay the balance of such sinking fund payment in cash. Such cash paid to the Trustee is to be applied in retirement of 6½% First Montgage Bonds by call for redemption at the principal amount thereof together with accrued interest to the date specified for redemption. No such call need be made if the moneys then in the sinking fund and required to be paid into the sinking fund are less than \$25,000 in the aggregate and in such case such moneys may be used by the Trustee in purchasing for cancellation 6½% First Mortgage Bonds at a price not exceeding the principal amount thereof plus accrued interest and costs of purchase.

#### Certain Covenants

Among other covenants, the Trust Deed will contain covenants of the Company to the effect that, so long as any of the 6½% First Mortgage Bonds are outstanding:

- (a) except as stated under the heading "Security", the Company shall not create any encumbrance upon its assets of undertaking ranking prior to or pari passu with the security to be created by the Trust Deed;
- (b) the Company shall not issue or become liable on any funded obligations which mature or which require the making of sinking fund payments on or prior to June 15, 1963, subject to the provision for the issuance of Additional Bonds referred to below;
- (c) the Company shall not create, assume or become liable on any purchase money mortgage;
- (d) the Company shall not declare or pay any dividends on any of its shares at any time outstanding or redeem, reduce, purchase or otherwise pay off any of its shares at any time outstanding or make loans (except to employees) or purchase securities (except in Government of Canada securities maturing in not later than one year); and
- (e) the Company will not guarantee any indebtedness or dividends of or give any other guarantee on behalf of any person, firm or corporation;

provided that the foregoing covenants and the floating charge shall not apply to nor operate to prevent:

- (i) the assuming or giving of purchase money mortgages on additional property acquired by the company after February 16, 1959 up to but not exceeding 60% of the cost of the property so acquired; or
- (ii) the acquiring by the Company of additional property subject to any mortgage, lien, charge or encumbrance thereon at the time of such acquisition; or
- (iii) the extension, renewal or refunding of any mortgage, lien, charge or encumbrance permitted under sub-divisions (i) or (ii) hereof to the extent of the principal amount of the indebtedness secured by and owing under any such mortgage, lien, charge or encumbrance at the time of such extension, renewal or refunding; or
- (iv) (a) the making of loans, or
  - (b) the purchase of securities, or
  - (c) the guaranteeing of indebtedness, obligations or agreements incurred, undertaken or entered into,

in each case with respect to or for the express purpose of providing living accommodation for the Company's employees either directly or through Rexspar Housing Limited.

#### **Definitions**

Definitions of "funded obligations", "purchase money mortgage", "minor title defects" and "permitted encumbrances", among others, are set forth in paragraph (g) of the statutory information in this prospectus.

#### MANAGEMENT

John Wilfred Scott, the Company's Mine Manager, is a Mining Engineer, with the degree of B.A., B.A.Sc. in Mining at the University of British Columbia. Prior to his employment by the Company in 1954 he spent three years as the Engineer and Drill Superintendent with Yukon Consolidated Gold Corporation Ltd., one year with Demerara Bauxite Limited, one year with R.C.A.F. Underground Fuel Storage Construction, two years as Mining Engineer with Granby Consolidated Mining, Smelting and Power Co. Ltd., one year as Tunnel Superintendent with Miners Western Limited, two years with Pellaire Mines Ltd., two years with Scranton Mines Ltd. and two years with Emerald Glacier Mines Ltd.

Donald Marston Edwards, the Company's Mine Engineer is a Mining Engineer with the degrees of B.A., B.A.Sc. in mining at the University of BritishColumbia. For the five year period prior to his employment by the Company, he was on the engineering staff of Britannia Mining & Smelting Co. Ltd. His previous experience includes three years as engineer and shift boss with Reeves, MacDonald Mines Ltd., four years as Mine Superintendent in the Slocan Area of ViolaMac Mines Ltd. and two years as General Superintendent of Kennville Gold Mines Ltd.

Stanley Fraser Leaming, the Company's Mine Geologist, is a Mining Engineer with the degree of M.A.Sc. in geology at the University of Toronto. Prior to his employment by the Company in 1958, he spent two years with Upper Canada Mines Ltd., four years with Technical Mines Concultants Limited and one year with Prospector's Airways Co. Ltd.

#### REPORTS

Forming part of this Prospectus and appearing in Appendices I to VI on pages 8 to 13 inclusives, are reports of Samuel M. Manning, P.Eng., Mining Engineer, Wright Engineers Limited, A.H. Ross & Associates, Ball, Craig, Short and Company Limited, Robert McLellan & Co. Ltd. and J.W. Scott, the Company's Mine Manager.

#### **FINANCIAL**

Appended are a balance sheet and pro-forma balance sheet of the Company as at December 31, 1958 with supporting statements of exploration, development and administrative expenses and a report thereon signed by the Company's Auditor and by Gunn, Roberts and Co., Consulting Accountants.

Yours truly,

REXSPAR MINERALS & CHEMICALS LIMITED

> (Sgd) Philip Joseph, President.

#### APPENDIX I

#### INDEPENDENT ENGINEER'S REPORT

Rexepar Minerals & Chemicals Limited, Executive Offices, 550 Sherbrooke Street West, Montreal, Quebec.

The following report on the property of Rexspar Minerals & Chemicals Limited (hereinafter referred to as the "Company") is submitted after considering certain reports and making independent engineering investigations, as herein referred to:

#### Basis of this Report

This report is based on firsthand knowledge of the Company's property acquired as western representative of Technical Mine Consultants Limited, which investigated this and other properties, as I was in direct contact with the operation during the years 1954, 1955 and 1956. Since that time I have reviewed reports, records of work accomplished and other material supplied by the Company and I have reviewed reports of Wright Engineers Limited, A.H. Ross & Associates, Ball, Craig, Short & Company Limited, Robert McLellan & Co. Ltd. and J.W. Scott, the Company's Mine Manager, set forth as Appendices H to VI, inclusive, to this prospectus. The methods of mining, milling and transportation have been discussed with the Company's engineers and officers, with Mr. Harold Wright and Mr. Leonard Wright, both of Wright Engineers Limited, with Prof. F.A. Forward of the Department of Mining and Metallurgy of the University of British Columbia and with officials of Sherritt Gordon Mines Limited, which company did the initial leaching work.

The property first received attention in 1918 when fluorspar was discovered. Later, some attention was paid to a bog manganese deposit, and to some lead-zinc showings. Attention was again drawn to the property during the second world war when it was again investigated for fluorspar, and during 1942 and

property during the second world war when it was again investigated for fluorspar, and during 1942 and 1943 approximately 5,000 feet of diamond drilling was completed on this fluorspar showing. This indicated a large tonnage of low grade fluorspar ore on the Company's property.

The presence of uranium mineralization on the property was first suspected in late 1949 and confirmed in 1950. Active prospecting and development of the uranium showing continued in the eight following years consisting of surface prospecting, underground development and diamond drilling, together with continuous geological surveying and mapping of the underground workings and surface rock exposures.

As a result of this work, which is still in progress, three bodies of uranium ore known as the "A" Zone, "B" Zone, and the "BD" Zone, have been outlined, developed and proved, and several other radioactive areas have been discovered and are being tested.

The main property within which the aforementioned three proven uranium ore zones occur consists of 124 contiguous mineral claims and fractions covering an area which is roughly rectangular in shape and approximately 4½ miles long by 2 miles wide. Of the 124 claims and fractions, 40 claims and fractions are held under Crown Grant, 73 claims and fractions are held by location and the remaining 11 claims and

fractions are leased from Deer Horn Mines Ltd.

In addition 32 claims apart from the Company's main property with an interesting showing of silver-lead-zinc, are held under an option agreement and 36 claims and 12 fractions adjoining this area were staked this year on behalf of the Company.

#### Location and Accessibility

The property is located in the vicinity of Birch Island, B.C., a small farming community on the North Thompson River, through which runs the Canadian National Railway. Birch Island is 12 hours by train from Vancouver, B.C., and 2 hours by train, and 3 hours by a fair all-weather automobile road, from Kamloops, B.C.

The main property lies on the south side of the railway which, at Birch Island station, runs east and west along the south shore of the North Thompson River, and extends southerly from the railway for a distance of approximately 4½ miles. In a west-east direction the claims extend for a distance of

2 miles from the ridge west of Foghorn Creek easterly to Cedar Creek and beyond.

The ore bodies found and developed on the property lie about 2½ miles due south of Birch Island station and are reached from there by an all-weather truck and auto road 7½ miles in length traversing the Company's property.

#### Physical Features and Conditions

Elevations vary from 1,480 feet at Birch Island station to 5,000 feet at the south end of the property. The claims cover hills which slope moderately to the north except where creeks running nearly due north cut deeply into them. The moderate slopes are covered with gravel and small trees and lend themselves to easy and cheap road construction.

Precipitation and temperature records from 1932 to 1945 from Molliets sheep ranch at Vavenby, British Columbia, close to Birch Island, on an averaged yearly basis, are as follows:

> Snow (equivalent to rain) ..... 4.4 inches 16.8 inches

Average annual snowfall: 3.66 feet. Lowest recorded temperature: Minus 45° F. (Jan. 1943).

From the experience of the past few winters it is estimated that 3 to 3½ feet of snow might lie on the ground at camp level and that in the valley at the mill site, the depth of snow might be between 1 and 11/2 feet.

#### Mineralogy

A mineralogical report by the Radioactivity Division of the Department of Mines and Technical Surveys, Ottawa, Ontario, was made on two classes of rock, one dark coloured, the other light coloured, which comprised a three hundred and seventy pound bulk sample assaying  $0.082\%~U_3O_8$  (chemical method) and  $0.091\%~U_3O_8$  (radiometric method). This report states in effect that:

- 1. (a) The dark coloured rock is medium grained, predominantly biotite-rock.
  - (b) The light coloured rock is very fine grained rock in which feldspar and quartz are more abundant than mica.
- 2. The dark coloured rock is more schistose and more heavily pyritized than the massive light coloured rock.
- 3. The radioactivity is due to a uraniferous thorite and pitchblende. The thorite is more abundant and usually occurs in the dark coloured biotite-rock while the pitchblende is formed in the lighter more feldspathic rock.

The dark coloured biotite-rock containing the uraniferous thorite is the "ore-type" rock. Uraninite and metatorbernite also occur and it is reported that monazite and allanite are sometimes associated with the ore. These radioactive minerals are always associated with rutile. Uranium values are generally greatest where the pyrite is layered and where the pyrite and mica are fine grained.

#### Geology

The area was mapped geologically in 1930 by Dr. J. F. Walker, of the Geological Survey of Canada. His findings are in Summary Report 1930, Part A, published by the Geological Survey of Canada.

Dr. Walker states that the area which includes the Company's property is underlain by "metamorphosed sediments of the Pre-Cambrian age, cut by later granodiorite intrusives". Locally the trachyte is considered to be of Pre-Cambrian age and the overlying andesite of Triassic age.

Dr. Walker's report was used as a basis for geological mapping conducted from 1950 to 1956 inclusive by Mr. S. Leaming (presently the Company's Mining Geologist) assisted by Messrs. L. Gatenby and J. Landry, Geologists, under the supervision of Technical Mine Consultants Limited.

A petrographic report by the University of Toronto in early 1953 made on twenty-six specimens from the property indicate four or five groups of rocks as follows:

- (1) Tuffs with trachytic fragments embedded in biotite-sericite matrix possibly formed by the metamorphism of an argillaceous matrix of the fragments (mineralized zones);
- (2) Highly feldspathic, fine grained prophyritic trachytic tuffs with possibly one or two flows of the same composition (possibly simply large fragments);
- (3) Rocks consisting almost exclusively of biotite-sericite;
- (4) Rocks consisting chiefly of pegmatitic albite; and
- (5) Rocks consisting principally of silty argillite.

The basement rocks underlying the property outcrop north and south of the mineralized zones and extend northerly close to Birch Island. They consist chiefly of a schistose light coloured rock of which the chief mineral appears to be sericite. These rocks contain occasional argillaceous bands and lenses varying in thickness from 1 to 50 feet. At the top of the schists are several dark argillaceous lenses, one of which is 50 feet thick.

Overlying this argillaceous bed is a thick bed of trachyte and grey to blue fragmental trachyte varying in thickness from 50 to 400 feet. This bed contains a dark phase consisting of trachyte fragments in an argillaceous matrix which is locally known as the "fine pyrite-mica" or "ore-type" formation. All the uranium and fluorite deposits are contained in this formation as replacement lenses of various sizes and extent.

Capping the trachyte and outcropping on the south west limits of the property is a green-grey rock of andesitic composition, the schistose parts of which are called chlorite schists. Associated with the green-grey rocks are some whitish sericitic-carbonaceous rocks, possibly sediments.

The beds strike approximately north 30 degrees east with flat dips northwesterly and northeasterly with the hill. They have been gently folded and normally faulted.

#### Ore Occurrence

The ore occurs in lens shaped bodies in the "fine pyrite-mica" or "ore-type" rocks which consist of trachytic fragments in an argillaceous matrix. This "ore-type" rock is black, micaceous and pyritic and frequently contains some fluorite and celestite. These replacement ore deposits are thought to have been localized due to shearing and fracturing of the argillaceous matrix.

To date three uranium bearing ore bodies designated the "A", "B" and "BD" Zones have been outlined by closely spaced drill holes (50' to 100' apart) augmented by surface trenching and underground working. The "A" and "BD" Zones have been further developed by underground drifting and raising.

These ore bodies lie close to or on top of a northerly striking ridge and have been developed by diamond drilling and underground workings where the tree cover and gravel overburden are thin. They appear to occur fairly close to the perimeter of the trachytic bed. Because of the apparent occurrences of the ore bodies along the perimeter which is over 6 miles in length, it is thought other ore bodies might be found in these areas which are largely unexplored due to heavy overburden. These border areas therefore should be given further consideration.

The "A" Zone ore body lies on the east slope of the ridge at elevation 3800 feet. It strikes N 15° E and dips northwesterly at 30° into the hill and plunges northerly at a low angle. It is 700 feet long by  $\sqrt{250}$  feet wide with an average thickness of 50 feet.

The "BD" Zone are body is 500 feet long by 350 feet wide with an average thickness of 50 feet. It is 500 feet lower in elevation than the "A" Zone and lies 1600 feet westerly from it and on the west slope of the ridge. It strikes N 30° E and dips northwesterly.

The "B" Zone ore body consisting of two smaller lenses separated by 30 feet of low grade mineralization occurs on the west slope of the ridge 900 feet north of the "BD" Zone and 300 feet higher in elevation in a large mineralized mass. These two lenses roughly parallel each other and strike N 25° E with flat dips 15° to 20° northwesterly. The larger body is 400 feet long by 200 feet wide with an average thickness of 15 feet. The smaller tabular body is 290 feet long, 90 feet wide and 15 feet thick.

Exceptions to the general rules of ore occurrence are found in the "A" and "B" Zones. In the "A" Zone, ore grade values have been found in the normal trachyte, but in general this rock is much more highly sheared and fractured where such values occur. In the "B" Zone ore values have been found in areas where coarse pyrite and mica occur, contrary to the general rule.

#### Summary of total ore reserves

Indicated ore reserves calculated by the technical staff of the Company have been made available to me and agree closely with the tonnage and grade calculated by me allowing for new ore recently developed. Vertical sections have been prepared at 50 foot intervals normal to the long axis of the ore lenses for reserve calculations. Ten cubic feet of ore in place is considered equal to one ton of ore and has been used in the ore reserve calculations contained in this report.

Ore Zone	Open Pit	Underground	Tonnage	Pounds U <sub>s</sub> O <sub>s</sub>
"A"	709.343		709,343	1.618
"B" upper lens	150,680	40,920	191,600	1.610
lower lens	•	45,000	45,000	2.250
"BD"	645,152	40,673	685,825	1.580
TOTAL	1,505,175	126,593	1,631,768	1.619

Recovery which has been estimated by A. H. Ross & Associates to be 86% (1.392 pounds per ton) is 2,271,421 pounds  $U_3O_8$ . However, specific gravity tests made in 1955 gave 9.1 cubic feet per ton. On this latter basis the tonnage would be increased by 161,384 tons which at 1.392 pounds per ton (86% of 1.619 pounds) is 224,646 pounds  $U_3O_8$ .

Initially, mining will be by open pit methods, and eventually by underground methods. The open pit ore reserves should be diluted by 5% with material grading 0.4 pounds U<sub>3</sub>O<sub>8</sub> per ton for all pits. The grade of 0.4 is appropriate because the diluting material will consist generally of low grade ore, not entirely waste.

The total poundage of U<sub>3</sub>O<sub>8</sub> to be produced to fulfill the requirements of the contract between the Company and Eldorado Mining and Refining Limited (hereinafter referred to as "Eldorado") can be supplied by open pit methods.

#### Open Pit Reserve

Pit Tons	Grade lbs. U₃Os/Ton	Dilution 5% Ton	Grade lbs. U <sub>2</sub> O <sub>2</sub> /Ton	Total Tons Mined	Grade lbs. U <sub>2</sub> O <sub>8</sub> /Ton
"A" 709,343	1.618	35,467	0.40	744,810	1.560
"B" 150,680	1.610	7,534	0.40	158,214	1.570
"BD" 645,152	1.580	32,258	0.40	677,410	1.53 <b>2</b>
		•			-
1,505,175		75,259		1,580,434	1.55

At a recovery rate of 86%, the grade is 1.333 pounds  $U_3O_8$  per ton. 1,580,434 tons at 1.333 pounds  $U_3O_8$  per ton contains 2,106,718 pounds  $U_3O_8$ . The present contract with Eldorado referred to above is for 2,053,125 pounds  $U_3O_8$  requiring the milling of 1,540,229 tons so that the total deliveries required under the contract with Eldorado can be met by open pit mining without drawing from the underground tonnage.

## Open Pit Waste to Ore Ratio

The estimate of J. W. Scott, the Company's Mine Manager, as to the amount of overburden and waste rock which must be removed from the three ore zones are as follows:

Ore Zone	Overburden in cu. yds.		Waste Rock in cu. yds.
" <b>A"</b>	42,000		200,000
"B"	36,000	•	71,000
"BD"	350,000		<b>2</b> 50,000

Based on 1 cubic yard of overburden weighing 1.5 tons and 1 cubic yard of waste rock weighing 2.3 tons the overburden and waste rock which must be removed from the three zones and the ratios of waste to ore are as follows:-

Ore Zone	Waste in tons	Ra	tio waste to ore
"A"	523,000		.7:1
"B"	217,300		1.37:1
"BD"	1,100,000		1.62:1
			************
		Average	1.164:1

This average ratio of waste to ore of 1.16 to 1 is very good, compared to other open pit operations.

Surplus tonnage indicated, over and above the contract requirements, is 145,412 tons.

The surplus pounds of U<sub>3</sub>O<sub>8</sub> over and above the contract requirements, after applying appropriate allowance for pillars and dilution factors to the underground reserves, is 208,619 pounds.

#### Ore Potential and Other Possibilities

As mentioned above, the large area of trachyte warrants further investigation. Possible products from this mineralized formation in addition to uranium concentrates are pyrite concentrates and rare earth concentrates.

Three areas in the trachyte, known as the "H" Zone, South Claims Zone and "F" Zone have returned encouraging results from the little work so far done on them.

The "H" Zone which lies northerly from the "B" Zone in the same "pyrite mica" formation that contains the "B" Zone ore body. Ore grade assays over narrow widths have been obtained from several drill holes and one pit in the area.

Some of the "B" Zone drill holes returned values from coarse pyrite-mica material and it appears reasonable therefore to expect ore from similar material in the "H" Zone.

The South Claims Zone area has interesting indications. Prospecting by geiger counter followed by trenching has exhibited radioactive ore-type float. Two drill holes on the ridge south of the "A" Zone cut weakly radioactive ore-type material across fair widths which might be the source of the radioactive float.

The "F" Zone lies west of Foghorn Creek and directly opposite the "BD" Zone. Uranium bearing float of ore grade was found early in the prospecting period of open cutting and trenching but the ground is badly broken and later diamond drilling has been very inconclusive since core recovery has been poor. It is possible that all the float has come from an ore zone that has broken off and slid down the hill but further prospecting might find ore in place.

The fluorite deposit referred previously above is 700 feet long by 300 feet in width and was drilled and outlined in 1942 and 1943. It contains over 1,000,000 tons of ore averaging 20% florite and 15% celestite. Its occurrence is similar to that of the uranium deposits. Milling tests which have been underway for some time at the Colorado School of Mines Research Foundation are very encouraging. Tests are continuing.

Possible products from this deposit include fluorite concentrates (metallurgical and acid grades) and celestite concentrates.

Silver-lead-zinc deposits occur near the top of Foghorn Mountain on mineral claims recently optioned by the Company. The work done on these mineral claims to date is insufficient to correlate the deposits or indicate their potentiality. Some trenching is at present underway on these claims.

#### Mill

The Company's mill has been designed to use an acid pressure leach — solvent extraction processes.

A.H. Ross & Associates, Consulting Metallurgists, have been retained to co-ordinate the design and construction of the plant.

Professor F. A. Forward of the Department of Mining and Metallurgy of the University of British Columbia, is available for assistance in connection with the leaching process and its relation to the rest of the mill.

#### Capital Cost Estimates

Ball, Craig, Short and Company Limited, Consulting Engineers, have prepared an estimate of the capital cost of the leaching and solvent extraction plant and assay office with buildings and building services.

Wright Engineers Limited, Consulting Metallurgists, have prepared an estimate of the capital cost of the crushing and grinding circuits and compressor plant, the power and process steam plant, power distribution and service buildings and equipment.

Robert McLellan & Co. Ltd., Consulting Engineers, have prepared an estimate of the capital cost of the aerial tramway.

John W. Scott, the Company's Mine Manager, has prepared an estimate of the capital cost of the mining equipment and of supplying necessary essential services to the proposed trailer town-site.

The foregoing estimates are set forth in the reports, Appendices II to VI on pages 14 to 21.

I have estimated the cost of inventory and supplies at \$200,000.

The following is a summary of the estimated funds needed from January 15, 1959 to develop, construct and bring the Company's mine and plant into production:

Mining Equipment	\$	73,000
Milling Plant and Equipment		2,045,907
Leaching and Solvent Extraction Plant		2,632,601
Aerial Tramway		183,800
Housing		30,000
Inventory and Supplies		200,000
Working Capital		200.000
TOTAL	*	5.365.408

#### **PRODUCTION**

Data supplied by Wright Engineers Limited and by Ball, Craig, Short & Company Limited indicate that if construction of the mill starts by January 15, 1959, and proceeds diligently, production from the mill should commence by August 1, 1959. Also, Robert McLellan & Co. Ltd., indicate that production from the mine and aerial tramway can be in progress by that date.

The operating period, based on starting August 1, 1959, and terminating March 31, 1963, under the contract with Eldorado Mining and Refining Limited is 3 years, 8 months or 1320 days (360 days per year).

A milling rate of 750 tons per day has been fixed for an initial "tune-up" period of six months.

Once the plant is "tuned-up" the undersigned considers that it can without difficulty exceed its rated capacity and mill ore at an average rate of 1,235 tons per day. On the assumption that 750 tons per day will be milled for the first 6 months and 1,235 tons per day for the remaining 3 years, 2 months, the tonnage milled would be 1,542,900 tons which is slightly in excess of the 1,540,229 tons estimated to be required to meet the full Eldorado contract.

#### ESTIMATED PRODUCTION RATES

	ESTIMATED PRO	DUCTION RATES		
6 Months @ 75	0 Tons per day	Tons135,000	Tons (1,540,229 req'd.)	U <sub>2</sub> O <sub>8</sub> Pounds 2,053,125
_	5 Tons per day	•	1,542,900	2,056,685
,	ESTIMATED N	AINING COSTS		
pit mining. The Mizones. The estimate Construction Co. Lt	above the ore requirements to further Manager's estimate of costs in the costs of loading and hauling with the costs of Kamloops, B.C., is 35 cents breaking, loading and hauling w	for breaking waste rock vaste rock in accordance per cubic yard for a	x is \$0.85 per cubi ce with the bid of Il zones. Accordin	c yard for all J. B. Logan gly, the total
timated costs for lo	anager's estimated costs for brea bading and hauling ore in accord a for the "A" Zone, 35 cents for t costs for breaking, loading and h	ance with the bid of the "B" Zone and 45 ce	said J. B. Logan ents for the "BD"	Construction
"A" Z	one		\$0.85	,
"B" Z	one		\$0.70	
"BD"	Zone	4	\$0.80	
dance with the bid	foregoing and on the estimated of the said J. B. Logan Construct ag costs for the three zones are	ion Co. Ltd. of 35 cen	hauling overburd ts per cubic yard	len in accor- for all zones,
	cu. yds. of overburden @ \$ .35	non au vid		<b>9</b> 14 700
	cu. yds. of waste rock @ \$1.20			
Removal of 200,000	cd. yds. of waste fock @ \$1.20	per cu. yu		210,000
				\$254,700
As previously indic "A" Zone which giv	eated there are 744,810 tons of cress a cost per ton of ore for remove	ore after dilution obtain ring overburden and wa	nable by open pit ste rock of 254,700 744,810	mining in the = \$0.34.
	ton of ore:			
	oing as above			
	ng and Hauling			<b>21</b> 00
Engi	neering, Supervision and Sampling	g (estimated by J. W. )	Scott)10	erza ber ton
"B" Zone:				
Removal of 36,000	cu. yds. of overburden @ \$ .35	per cu. yd		\$11,600
•		· · · · · · · · · · · · · · · · · · ·		

As previously indicated there are 158,214 tons of ore after dilution obtainable by open pit mining in the "B" zone which gives a cost per ton of ore for removing overburden and waste rock of 96,800 = \$0.61.

Cost per ton of ore:		
Stripping as above	0.61	
Mining and Hauling		
Engineering, Supervision and Sampling (estimated by J. W. Scott)	.10 \$1.41	per ton

"BD" Zone:		
Removal of 350,000 cu. yds. overburden @ \$ .35 per cu. yd		
		\$422,500.
As previously indicated there are 677,410 tons of ore after dilution obtainable by the "BD" zone which gives a cost per ton of ore for removing overburden and waste roo	y open pit k of 422,50	mining in 0== \$0.62.
	677,410	-
Cost per ton of ore:		
Stripping as above	0.62	
Mining and Hauling		
Engineering, Supervising and Sampling (estimated by J.W. Scott)	<u> </u>	2 per ton
Average cost for complete open pit operation		
"A" Zone 744,810 tons at \$1.29	-	960,804.90
"B" Zone 158,214 tons at 1.41		223,081.74
"BD" Zone 677,410 tons at 1.52		029,662.20
1,580,434 tons at 1.40	- •	213,549.84
Average cost per ton $\div$ 2,213,549.84 = \$1.41 per t	on	
1,580,439		
ESTIMATED MILLING COSTS		
A. H. Ross & Associates estimate the costs of crushing, aerial tramming and m at the rate of 1235 tons per day to be \$4.50 per ton. They have informed me that the up as follows:-	illing when ir estimate	operating was made
At ra	te of 1235 tor	is per day
Labour and Salaries	.761	
Workmen's Compensation	.104 .305	
Chemicals	.955	
Power	.605	
Water	.030	
Heat	.331	
Maintenance	.682	
Analytical	.142	
	3.915	
Sales Tax	.13	
Aerial Tram	.14	
	4.185	***
Contingencies 5%	210	
	4.395	
Develties 10 cents non ton		
Royalties 10 cents per ton	.10	
	<b>\$4.495</b>	
	<b>\$4.50</b>	per ton *
ESTIMATED OVERHEAD		
THE THIRD CONTRACTOR OF THE PARTY OF THE PAR	te of 1285 to	ns per day
Surface \$23,750 yearly	\$0.053	
Administration: \$46,800 yearly	0.103	
	\$0.16	per ton
TOTAL ESTIMATED OPERATING COSTS	of 100F	
Mining Costs	ste of 1235 to:	is per day
Milling Costs	4.50	,
Overhead	0.16	'n
		per ton

Respectfully submitted,

Samuel McIntyre Manning, P.Eng.

West Vancouver, B.C. January 5, 1959.

<sup>\*</sup>It is to be noted that this estimate of costs contains no provision for neutralization of the tailings' effluent prior to waste disposal in the North Thompson River. In their report, A. H. Ross & Associates indicate that the ground conditions in the tailings' disposal area are such that it may be possible to meet the effluent requirements of the Federal Department of Fisheries without resorting to neutralization.

#### CERTIFICATE OF QUALIFICATION

- I, Samuel McIntyre Manning of the Village of West Vancouver, in the Province of British Columbia, hereby certify:
- 1. THAT I am a mining engineer with business address at 2642 Nelson Avenue, West Vancouver, B.C.
- 2. THAT I have been a Professional Mining Engineer of the Province of British Columbia since 1934, am in good standing, and have been practising my profession for thirty-three years.
- 3. THAT I have not received, nor do I expect to receive, any interest directly or indirectly in the properties or securities of Rexspar Minerals & Chemicals Limited.
- 4. THAT the accompanying report is based on first hand knowledge of the property, for, as western representative of Technical Mine Consultants Limited, this property came under my jurisdiction, and I was in direct contact with the operation during the years 1954, 1955 and 1956. Since then I have reviewed the records of the work accomplished by Rexspar Minerals & Chemicals Limited in the past two years to September, 1958, and I have reviewed the reports of Wright Engineers Limited, A.H. Rooss & Associates, Ball, Craig, Short & Company Limited, Robert McLellan & Co. Ltd. and John W. Scott, the Mine Manager, which reports are set forth as Appendices II to VI, inclusive, to this Prospectus.

West Vancouver, B.C.

Samuel McIntyre Manning, Prof.Eng.

January 5, 1959.

#### APPENDIX II

#### CONSULTING ENGINEER'S REPORT

WRIGHT ENGINEERS LIMITED 850 West Hastings St. Vancouver 1, British Columbia

Rexspar Minerals & Chemicals Limited, Executive Officers, 550 Sherbrooke Street West, Montreal, Quebec.

January 5, 1959

Dear Sirs,

In accordance with your request, we have prepared the following report which, in our opinion, presents fairly a synopsis of our detailed report dated September 22, 1958, entitled "Estimate of 1170 T.P.D. Uranium Concentrator for Rexspar Minerals & Chemicals Limited, Birch Island, B. C.", setting forth the tonnage and cost estimates for the crushing plant, grinding plant, water supply, compressor plant, process steam plant, standby power, power distribution and the service buildings and equipment of your Company.

Our estimate does not cover the leaching plant, solvent extraction plant, mine assay office, mine equipment, aerial tram, or townsite with respect to which estimates are being furnished you by others. Equipment has been sized based on metallurgical reports and test data supplied by others.

The estimate is based on current cost of materials, labour and facilities and on the availability

of the second hand equipment as quoted to us.

The British Columbia S.S. & M.A. Tax is calculated at 5% of the total equipment cost plus 5% of half the building and installation cost.

The Steam Plant estimate, along with auxiliary power to take care of any power breaks, has been prepared with the cooperation of Mr. A.C.R. Yuill, P.Eng. The Power Distribution System estimate is by Mr. M.A. Thomas, P.Eng.

This estimate does not include any allowance for rolling stock or neutralization of tailings. No

provision has been made for initial operating supplies as it is understood that an all-inclusive allowance has been made by S.M. Manning in his report (Appendix I).

Our detailed report mentioned above may be summarized as follows:

#### **ESTIMATE** — TONNAGE

The Company's mill has been designed with a rated capacity of 1170 tons per day. The estimate set forth below is based on an anticipated average operating capacity of 1235 tons per day which we consider can be maintained without difficulty after an appropriate tune up period.

Mill = 1,235 tons/day average = 8,645 tons per week.

Mill live ore storage 2.84 days minimum at 1235 = 3,510 tons.

Additional reserve dead storage at mill by bulldozer as required.

Aerial tram = 60 tons/hour, 480 tons/shift, 1,440 tons/day.

Crushing Plant operates alternatively five and six days per week, one shift per day.

Quarry operates to same schedules as Crushing Plant.

Crushing Plant = 1,572 tons per shift.

Theoretical Tram Surge Bin = 1,572 - 480 + (4) 1572 - 1,440) = 1620 tons.

Tram Surge Bin = 2,000 tons allowing 380 tons for tram shut-down other than the 10% allowance factor on the 60 tons per hr. Figure used. factor on the 60 tons per hr. Figure used.

#### Quarrys

275 tons per hour, 7 hours/shift net; 1 shift per day; equals 1,572 tons per day.

Coarse Ore Bin (pocket for truck discharge 40-50 ton capacity).

Two-stage Crushing Plant in closed circuit with screens producing minus 3/4 product. 225 tons

per hour. Tram Surge Bin -- 2,000 tons

Aerial Tram — 60 tons per hour, 24 hours per day, 5 to 6 days per week.

Fine Ore Storage at Mill — 3,500 live tons.

Grinding — 1,235 tons per day average, 3 shifts per day, grind to 65% minus 200 mesh.

as we difficulty by Lady in

#### **ESTIMATE COST**

Crushing Plant (220 tons per hour)		
Equipment (f.o.b. Site)  Construction and Installation (including tram storage bin)  Engineering and Supervision 7%	\$236,650.00 145,770.00 26,770.00	, .
Contingencies 10%	38,240.00	\$447,430.00
Grinding Plant		
Equipment  Construction and Installation (including shop buildings)  Engineering and Supervision 7%  Contingencies 5%	\$235,890.00 120,204.00 22,126.00 15,807.00	394,027.00
Water Supply (including fire lines)		
Equipment and Installations  Engineering and Supervision 7%  Contingencies 10%	\$ 89,175.00 6,242.00 9,542.00	104,959.00
High Pressure and Low Pressure Air Compressing Plant		
Equipment Construction and Installation Engineering and Supervision 7% Contingencies 10%	\$167,417.00 177,890.00 24,172.00 34,531.00	404,010.00
Steam Power and Process Steam Plant		
Building, Equipment and Installation  Engineering and Supervision  Contingencies  Additional Water Supply Requirements	\$278,000.00 30,000.00 20,000.00 64,000.00	392,000.00
Power Distribution System		
Equipment and Installation Miscellaneous Outside Lighting	\$149,000.00 14,000.00 3,000.00	166,000.00
Service Buildings and Equipment		
Buildings, furniture and equipment	\$ 69,300.00 4,851.00	74,151.00
Micellaneous		
Access Roads, Grading, Sewage System, Tailings Line and Telephone exchange (including contingencies) Engineering and Supervision 7%	\$ 19,000.00 1,330.00	20,330.00
TOTAL		\$2,045,907.00

Respectfully submitted,

WRIGHT ENGINEERS LIMITED

L. F. Wright, P. Eng., Vice-President.

Vancouver, British Columbia, January 5, 1959.

#### CERTIFICATE OF QUALIFICATION

- I, Leonard Franklin Wright, of the City of Vancouver in the Province of British Columbia do hereby certify that:
- (1) I am a Metallurgical Engineer and reside at West Vancouver, British Columbia and am Vice-President of Wright Engineers Limited.
- (2) I am a graduate of the University of British Columbia with the degree of Bachelor of Applied Science in Metallurgical Engineering and of the University of Utah with the degree of Master of Science in Metallurgical Engineering and a member of the Association of Professional Engineers of the Province of British Columbia and have been practising my profession for twenty years.
- (3) I have no personal interest nor does Wright Engineers Limited have any interest either directly or indirectly in the properties or securities of Rexspar Uranium and Metals Mining Co. Limited and do not expect to receive any such interest.
- (4) The detailed report prepared by Wright Engineers Limited dated September 22, 1958, a synopsis of which appears above, is based partly on contract bids, partly on the prevailing price and availability of new and used machinery to be ordered and partly on our recent experiences in the actual cost of similar structures and installations, and to the best of my knowledge and ability is an accurate estimate of cur portion of the project cost.

Dated at Vancouver, B.C.

L.F. Wright, P.Eng.

January 5, 1959.

#### METALLURGIST'S REPORT

A. H. ROSS & ASSOCIATES 62 Richmond Street West Toronto, Ontario

January 5, 1959.

Rexspar Minerals & Chemicals Limited, Executive Offices, 550 Sherbrooke Street West, Montreal, Quebec.

#### Dear Sirs:

The following is our report on the various aspects pertaining to the metallurgical treatment of the ores from the property of Rexspar Minerals & Chemicals Limited.

#### URANIUM

#### General Mineralogy

The ore is a fine-grained siliceous rock consisting mainly of feldspar and mica. Abundant pyrite and considerable fluorite is present. Small amounts of rutile, bastnasite, apatite, siderite, and celestite also occur.

The uranium bearing minerals are very fine-grained uranothorite, pitch-blende, uraninite, and metatorbernite. Monazite and allanite are also reported to occur in the ore. A large proportion of the radioactive constituents occurs in intimate intergrowths with rutile and is very finely disseminated in gangue.

#### Metallurgical Testwork

From 1951 to 1956 laboratory metallurgical studies were conducted at various periods at the Radioactivity Division, Department of Mines and Technical Surveys, Ottawa; and also in the Department of Mining and Metallurgy of the University of British Columbia under the direction of Professor F.A. Forward. This testwork was undertaken on diamond drill core rejects and on bulk samples of mine ore.

This testwork has shown that conventional acid or carbonate leaching are not applicable to the Rexspar ore. On the other hand, the acid-pressure leach process developed at the University of British Columbia yielded excellent extractions. This latter method is characterized by a number of further advantageous features such as the low leaching reagent cost resulting from the fact that only water and air are used in the leach.

From September 1956 to April 1957, further laboratory investigational work was undertaken with the acid-pressure leach process at the Radioactivity Division, Department of Mines and Technical Surveys, Ottawa. This work was also directed toward finding the most applicable method of recovering uranium from leach liquors to final product. Representative bulk samples of mine ore were used for these test purposes.

During the period January 29th to February 22nd, 1957, approximately 12 tons of bulk mine ore were processed in a small pilot plant leaching tower at the plant of Sherritt Gordon Mines Limited, Fort Saskatchewan, Alberta. Uranium bearing liquor from the run was shipped to the Radioactivity Division, Department of Mines and Technical Surveys, Ottawa.

During the period January - April 1958, a pilot plant leaching tower was erected and operated at the Radioactivity Division, Department of Mines and Technical Surveys, Ottawa. Approximately 10 tons of bulk mine ore from the A and BD zones were sent to Ottawa for this work.

The following conclusions are available from the limited amount of Sherritt Gordon pilot plant work:

- (a) Excellent extractions of uranium were obtained from batch leaching of the ore.
- (b) Corrosion and erosion were indicated to be severe; however the duration of the run was too short to allow definite conclusions on corrosion to be drawn.

The investigational work conducted at the Department of Mines, Ottawa, subsequently has shown the following:

- (a) Satisfactory performance was obtained during the test period with a number of materials of construction that had been chosen for test purposes in the leaching section of the plant; with the result that the problems of corrosion and erosion appear to be resolved.
- (b) A solvent extraction process is the preferred method of recovering uranium from leach liquors; and results with this technique are reported to be satisfactory.

#### Mill Design

Although limited in duration, the laboratory and pilot plant work has been satisfactory from the standpoints of metallurgy and equipment engineering.

With a view to eliminating possible corrosion problems with the shells of the leaching towers, it is now planned to use steel towers lined with a special type of rubber; the tower interiors will be further protected with acid resistant brick. Moreover, the use of rubber hose in place of alloy piping in various areas of the leaching section is expected to reduce the corrosion-erosion factors.

For plant design activities, Rexspar will have available some of the most experienced organizations in the field of hydro-metallurgy. These include the engineering staff of Sherritt Gordon Mines Limited, Wright Engineers Limited, Ball, Craig, Short and Company Limited, Professor F.A. Forward and A. H. Ross & Associates.

The opinions and advice of the staff of Sherritt Gordon Mines Limited have been accepted in interpreting the leach test results and in the preparation of the leach section of the flowsheet from an engineering standpoint.

The proposed method of processing the Rexspar ore may be described as an acid pressure leach-solvent extraction flowsheet. This project will represent the first plant scale application of the acid-pressure leach process in the uranium field. Similar general types of leaching techniques have been put into operation in the United States in recent years.

Solvent extraction plants are now in successful operation in the uranium raw material field in the United States and Eldorado Mining and Refining Limited have recently brought a solvent extraction plant into operation at their mine at Port Radium, N.W.T.

Rexspar's proposed treatment plant is being designed with a rated capacity of 1,170 tons of ore per day but an anticipated average operating capacity of 1,235 tons per day can, in our opinion, be maintain without difficulty after an appropriate tune-up period to ultimately process an average of 1170 tons of ore per day.

#### Operating Costs and Uranium Recoveries

The following estimates have been prepared with proper regard to the various factors associated with the present status of metallurgical and engineering design knowledge on the project.

It is our opinion that to some extent, the initial six months of operation of the plant must be considered to be a development period required to finalize the details of various phases of engineering design and metallurgy.

The following is our estimate of average daily tonnage and mill operating costs:

	Approximately first 6 months of operation	Subsequent months of operation
Average mill entry-tons per day	750	1,235
Total operating cost per ton for crushing, aerial training and milling	<b>\$</b> 5.73	<b>\$4.50</b>

The above costs do not contain any provision for fire insurance, realty tax, or other mine and head office overhead, nor for provincial mining tax, financial costs in the way of interest and depreciation, depletion, preproduction expenses and taxes on income; applicable process royalties and provincial sales taxes are included.

The estimates of operating costs are premised upon generation of electricity by a steam power plant to be erected at the mill.

The Federal Department of Fisheries has stipulated that the tailings' effluent must be neutralized prior to waste disposal in the North Thompson River. However, the ground conditions in the tailings' disposal area are such that it may be possible to meet the effluent requirements of the Department without resorting to neutralization; operating experience is required in order to be able to confirm this possibility.

The above costs contain no provision for this operation. Based upon the use of purchased lime during the first six months of operation and thereafter employing burned lime from manufacturing facilities to be installed at the Rexspar property, it is estimated that neutralization will add \$0.70 per ton to the above operating costs. This is based on the purchase of burnt lime and the use of the neutralization equipment provided for in the estimate of Ball, Craig, Short and Company Limited. This cost per ton would be considerably reduced if the Company were to procure its own burnt lime from a quarry presently leased to it but this would involve additional capital expenditures.

John W. Scott, Mine Manager has advised that the anticipated average grade of mill feed is 1.55 pounds of uranium oxide  $(U_3O_8)$  per ton. Based upon this grade, an average mill recovery of about 86% of the uranium is indicated in the form of an acceptable chemical precipitate.

#### Conclusion

The technical risks that exist in the Rexspar program are similar to those encountered and eventually overcome in other operations of a like nature in the last few years. It is our opinion that Rexspar would also find the possible technical difficulties to be surmountable, as has been the case in these other operations.

#### **FLUORSPAR**

#### General Mineralogy

The fluorspar deposit is reported to contain substantial quantities of pyrite, celestite, sericite and feldspars with quartz a minor ingredient.

Feldspars exhibit a relatively coarse-grained texture, being veined, surrounded and partly replaced by a mixture of fluorite, celestite and mica. This mixture ranges from medium to very fine grained in texture, being substantially finer than 325 mesh in places. Although some relatively large fluorite grains occur free from celestite, in many places the two minerals are intimately intergrown.

The gangue minerals are finely disseminated throughout the fluorspar grains.

The orebody contains minor amounts of calcite, galena, sphalerite, bastnaesite, uranium, gold and silver.

#### Metallurgical Testwork

In April 1957 a laboratory metallurgical investigational program was begun at the Colorado School of Mines Research Foundation. This research centre has undertaken a large amount of metallurgical work for the fluorspar mining industry in the United States. The work for Rexspar is being conducted on drill core samples.

The program at the Colorado School of Mines Research Foundation has produced some measure of encouragement, and metallurgical test work is continuing.

Respectfully submitted,
A.H. ROSS, P.Eng.

#### CERTIFICATE OF QUALIFICATION

- I, Alvin Henry Ross, of the Township of North York, in the Province of Ontario, do hereby certify that:
- (1) I am a Chemical Engineer and reside at 5 Oxbow Road, Willowdale, Ontario.
- (2) I am a graduate of Queen's University, Kingston, Ontario, in Chemical Engineering (1936) and I am a registered Professional Engineer of the Association of Professional Engineers of Ontario and have been practicing my profession continously for more than twenty years.
- (3) I have no personal interest, either directly or indirectly, in the properties or securities of Rexspar Minerals & Chemicals Limited, nor do I expect to receive any such interest.
- (4) I am the sole owner of the engineering firm of A.H. Ross & Associates which firm holds no interest, either directly or indirectly, in the properties or securities of Rexspart Minerals & Chemicals Limited and does not expect to receive any such interest.
- (5) The statements contained in this report are based upon the following:
  - (a) Personal observation of test results carried out on the ore of Rexspar Minerals & Chemicals Limited at the Radioactivity Division, Mines Branch, Department of Mines and Technical Surveys, Ottawa, during the period September 1956 February 1957.
  - (b) Reports of examinations, tests, and studies made by engineers of the following staffs:
    - i) Radioactivity Division, Mines Branch, Department of Mines and Technical Surveys,
    - ii) Research & Development Division, Sherritt Gordon Mines Limited, Fort Saskatchewan, Alberta.
      - These reports are based upon work performed from 1951 October 1958 on samples of ore from the property of Rexspart Minerals & Chemicals Limited.
  - (c) Personal studies of reports, flowsheets and technical data prepared by engineers on the Rexspar staff and by its consulting design engineers.
  - (d) Studies of field and operating reports pertaining to uranium metallurgical operations in other parts of the world.

A.H. Ross, P.Eng.

Willowdale, Ontario, January 5, 1959.

APPENDIX IV

#### CONSULTING ENGINEER'S REPORT

BALL, CRAIG, SHORT AND COMPANY LIMITED
5385 Yonge Street
Willowdale, Ontario

Rexspar Minerals & Chemicals Limited, Executive Offices, 550 Sherbrooke Street West, Montreal, Quebec. January 5, 1959.

Dear Sire.

In accordance with your request, we have prepared the following report which, in our opinion, presents fairly a synopsis of our report dated August 26, 1958 entitled "Estimate of Capital Cost, 1170 Tons Per Day, Uranium Leaching and Solvent Extraction Plant and Assay Office for Rexspar Minerals & Chemicals Limited, Birch Island, B. C." setting forth the estimated capital cost of the uranium leaching and solvent extraction plant proposed to be built by you at Birch Island, B. C. The plant covered by this estimate would be fed with an average of 1,235 tons per day of ore ground to 65 percent minus 200 mesh and would produce dried and drummed uranium oxide. We consider that the proposed plant will be able to maintain an average operating capacity of 1,235 tons per day without difficulty.

The estimate includes all buildings, equipment and facilities required, provided that the following services are provided for the plant:

- 1. Site services to this plant.
  - a) Domestic and service water.
  - b) Fire protection water.
  - c) Electrical power 2300/3/60.
  - d) 275 PSIG compressed air.
  - e) 50 PSIG compressed air.
  - f) 275 PSIG steam.
- 2. The piping of ground ore to this plant.
- 3. The disposal of sewage and tailings from this plant.
- 4. General site grading, roads, railroad siding, and fences.
- 5. Housing facilities.
- 6. Operating supplies and spare parts.
- 7. Inventory of caustic, acid, kerosene, solvent, etc.
- 8. Main office, shops and warehouse.

The estimate is based on the flow sheet information furnished to us by A. H. Ross & Associates and upon equipment and materials sized and selected in conjunction with them. It is also based on firm contract bids where these have been received, on prevailing prices of labour, equipment and materials where bids have not yet been received, and upon our recent experience with similar plants.

A summary of the estimate is as follows:

Buildings and Building Services	\$ 263,572	
Section A — Dewatering & Preheating	142,975	
Section B — Leaching	669,677	
Section C — Washing Thickeners	259,295	
Section D — Clarifying	74,447	
Section E — Filters	188,845	
Section F — Solvent Extraction	269,778	
Section G — Neutralizing	76,600	
Section H — Precipitation & Drying	70,552	
Miscellaneous (including mine eng. office)	181,360	\$2,197,101
Contingency (5%)		110,000
Allowance for accellerated construction		100,000
Allowance for B. C. Sales Tax		81,500
Engineering Supervision and Overhead		144,000
TOTAL		\$2,632,601

#### Respectfully submitted,

Ball, Craig, Short & Company, Limited

Per:

K.N. Craig, P.Eng. Secretary-Treasurer.

### CERTIFICATE OF QUALIFICATION

- I, KEITH NEWMAN CRAIG, of the Township of North York, in the Province of Ontario, DO HEREBY CERTIFY THAT:
- 1. I am a Mechanical Engineer and reside in Etobicoke Township, Ontario, and am Secretary-Treasurer of Ball, Craig, Short and Company Limited.
- 2. I am a graduate of the University of Toronto with the degree of Bachelor of Applied Science in Mechanical Engineering, and a member of the Association of Professional Engineers of the Province of Ontario and have been practising my profession for nine years.
- 3. I have no personal interest, nor does Ball, Craig, Short and Company Limited have any interest either directly or indirectly in the properties or securities of Rexspar Minerals & Chemicals Limited, and do not expect to receive any such interest.
- 4. The estimate prepared by Ball, Craig, Short and Company Limited, dated August 26, 1958, and the synopsis thereof dated January 5, 1959 are based partly on firm contract bids, partly on the prevailing price of materials and equipment to be ordered and partly on our recent experience in the actual cost of similar structures and installations, and to the best of my knowledge and ability is an accurate estimate of our portion of the project cost.

K. N. CRAIG, P. Eng.

Willowdale, Ontario, January 5, 1959.

#### CONSULTING ENGINEERS' REPORT

# ROBERT McLELLAN & CO. LTD. 689 Denman Street Vancouver 5, B.C.

January 5, 1959

Rexspar Minerals & Chemicals Limited, 550 Sherbrooke Street West, Montreal, Quebec.

#### Dear Sirs:

The following is our estimate of the cost requirements to complete and operate the aerial tramway purchased by you at a capacity of 70 tons per hour.

#### ESTIMATED COST TO COMPLETE TRAM

Machinery, cables, electrics and controls	\$ <b>59,480</b>
Steel	11,850
Installation, including buildings	64,000
Power line and telephone	15,000
Engineering	10,000
Supervision	5,000
20% contingency on installation	12,800
S.S. & M.A. Tax	3,470
Freight	2,200
•	\$ 183,800

The following is our estimate of the direct operating costs per ton exclusive of insurance, administrative, write off and financing charges based on a 5½ day week and a total of 1,600,000 tons transported.

#### OPERATING COST PER TON

#### Labour

Tram Foreman Upper Terminal Operating Engineers Lower Terminal Operators (Mechanics) Occasional offshift maintenance Extra winter maintenance and cable changing 15% fringe benefits	1.39¢ 3.57¢ 3.57¢ .33¢ .50¢ 1.08¢ 10.44¢
Traction line replacement Track cable replacement Mechanical replacements Miscellaneous lubricants, etc.	.5¢ .8¢ 1.3¢ 

TOTAL OPERATING COST approximately 14¢ per ton.

It is assumed that the tram is running at 90% efficiency and that the extra time is spent on regular shift maintenance. Approximately 140 H.P. will be produced.

Respectfully submitted,

ROBERT McLELLAN & CO. LTD.

per R.N. McLellan.

#### CERTIFICATE OF QUALIFICATION

- I, Robert McLellan, of the City of North Vancouver, in the Province of British Columbia, do hereby certify that:
  - 1. I am a consulting engineer residing at 4053 Sunnycrest, North Vancouver, B.C.
- 2. I graduated in mechanical engineering at the University of British Columbia with the degree of B.A.Sc. (1946).
- 3. I am a member of the Association of Professional Engineers of British Columbia and Alberta and have been practising my profession continuously for more than five years.
- 4. I have not received any interest, nor do I expect to receive any interest directly or indirectly in the properties or securities of Rexspar Minerals & Chemicals Limited ("Rexspar").
- 5. Robert McLellan & Co. Ltd. has no other interest and does not expect to receive any other interest directly or indirectly, in the properties or securities of Rexspar.
- 6. This letter dated 26th June, 1958, is based on personal visits to the property since September 1956, inspection of the used tramway equipment, purchased by Rexspar and detailed studies of the engineering problems involved.

January 5, 1959.

R. N. McLELLAN.

#### MINE MANAGER'S REPORT

JOHN W. SCOTT, Birch Island British Columbia

Rexspar Minerals & Chemicals Limited, Executive Offices, 550 Sherbrooke Street West, Montreal, Quebec.

#### Dear Sirs:

The following is my estimate of the cost of mining equipment for the open pit mining operation to be conducted on the "A", "B" and "BD" Zones of the Company's property:

Total	\$73,000.
bits hose etc.	9,000.
I Service Truck & Equipment	4,000.
2 600 cfm Rotary Compressors	38,000.
2 G.D. Air Trac Drills	\$22,000.

In connection with the construction of essential services for the trailer camp to be situate on the townsite property owned by Rexspar Housing Limited, I have estimated the cost of providing necessary water, sewage and electrical connections for trailers at \$25,000.

Respectfully submitted,

J. W. SCOTT.

#### CERTIFICATE OF QUALIFICATION

- I, John Wilfred Scott, of the village of Birch Island, in the Province of British Columbia, do hereby certify that:
- (1) I am a mining engineer residing at Birch Island, B.C. and am employed as resident manager of Rexspar Minerals & Chemicals Limited.
- (2) I graduated in mining engineering at the University of British Columbia with the degree of B.A.Sc. (1938).
  - (3) I have been practising my profession continuously for twenty years.
- (4) I have not received any interest nor do I expect to receive any interest, directly or indirectly, in the properties or securities of Rexspar Minerals & Chemicals Limited.
- (5) The estimates contained in my report are based on my personal knowledge and detailed studies of the proposed mining operation at the property of Rexspar Minerals & Chemicals Limited during my employment as Mine Manager and on studies of costs and operating procedures at similar open pit mining operations with which I have been connected previously or which I have visited and examined in detail in the past three years.

John W. SCOTT, Resident Manager.

Birch Island, B.C. January 5, 1959.

## REXSPAR MINERALS & CHEMICALS LIMITED

(Incorporated under the laws of the Province of Ontario)

#### BALANCE SHEET AND PRO FORMA BALANCE SHEET, DECEMBER 31, 1958

ASSETS		Pro Forma
CURRENT ASSETS:	Balance Sheet	
Accounts receivable	\$ 5,697	\$ 5,697
Supplies	1,887	1,887
PROJECT FUND:  Proposeds of the sale of \$4,000,000 \$15.00 Find Manager Sinking Found and 700 Sinking	7,584	7,584
Proceeds of the sale of \$4,000.000 61/2% First Mortgage Sinking Fund and 7% Sinking Fund Debentures and 1,300.000 shares of the company's capital stock to be applied		
in accordance with the terms of the Trust Deed (Note 1 (a))		5.877.300
MINING PROPERTIES AND CLAIMS:		
Mining properties and claims located in the Kamloops Mining Division, British		
Columbia, acquired for 825,000 shares of the company's capital stock issued at par and \$12,190 cash	837,190	837,190
Payment on option to lease mining claims (Note 2)	1,600	1.600
Fixed Assers at cost:	838,790	838,790
Buildings, machinery and equipment	211.034	211,034
DEFERRED EXPENDITURES:	***************************************	
Exploration and administrative expenditures deferred	1,305,803	1,305,803
Prepaid expenses	25,448 4,349	25,448 4,349
Organization expense	4,049	812,700
work dividuals and distributions the second	1,335,600	2.148.300
Investment, at cost	1471	1.471
<del></del>	2,394,479	9.084.470
Liabilities		
CURRENT LIABILITIES:		
Bank overdraft	20,686	20.686
Accounts payable and accrued liabilities	75,790	75,700
Estimated financing expenses		60,000
Funded Dept (Note 3):	96,476	156,476
6½% First Mortgage Sinking Fund Bonds to mature March 1, 1963		\$4,000,000 2,500,000
· /o oldering Fund Depending		\$6,500,000
CAPITAL STOCK (Note 4):		<b>3</b> 0,300,000
Authorized — 6,500,000 shares of \$1 each		
825,000 shares for mining claims	825,000	
5,000 shares for buildings 3,670,000 shares for cash \$3,670,000	5,000	
	1 400 000	
· · · · · · · · · · · · · · · · · · ·	1,468,603	9 999 999
4,500,000 shares 1,300,000 shares for cash (pro forma) 1,300,000	2,298,003	2,298,003
Deduct discount		130,000
5.800,000 shares (pro forma)		2,428,003
abandan /kra ontman/	\$2,394,479	\$9.084.479
Approved on behalf of the Board:	90007,710	20,001,110

PHILIP JOSEPH. Director

HUGH G. MacGREGOR, Director

#### NOTES TO BALANCE SHEET AND PRO FORMA BALANCE SHEET

1. PRO FORMA BALANCE SHEET:

The pro forms balance sheet gives effect as at December 31, 1958 to the following:

(a) The issue and sale of \$4,000,000 principal amount of 6½% First Mortgage Sinking Fund Bonds to mature March

1, 1963 and the issue and sale of 7% Sinking Fund Debentures together with the issue and sale of 1,300,000

shares of the capital stock of the company for a combined consideration of \$5.877,300, which has been apportioned in the pro forms balance sheet as \$5,747,300 from the sale of the bonds and \$130,000 from the sale of the shares.

(b) Expenses estimated at \$60,000 in connection with the above sale.

2. Payment on option to lease mining claims:

Under the terms of the option agreement the company is required to pay \$10,000 on or before January 15, 1959 in order to exercise its option to lease the claims, which payment is to be applied on account of royalties as, if and when royalties accrue (see note 5).

3. FUNDED DEFT:
Under the terms of the trust deed under which the 6½% First Mortgage Sinking Fund Bonds and Sinking Fund
Debentures will be issued, the company is required to make sinking fund payments as follows:

Payment due

Amount Payment due For Bonds December 31, 1960 December 31, 1961 For Debentures 1,000,000 1,000,000 1.000,000 March 1, 1963

- 4. CAPITAL STOCK:

  (a) The trust deed under which the 6½% First Mortgage Sinking Fund Bonds will be issued will provide that the company shall so long as any of the said Bonds are outstanding not declare any dividends on any shares of its capital stock (other than a dividend payable in shares of the company's capital stock) nor effect any reduction of or redeem any of its capital stock unless, after giving effect to such action, the consolidated net current assets of the company and its subsidiaries are not less than 50% of the principal amount of all bonds outstanding or \$1.500,000 whichever is greater.

  (b) As at September 30, 1958, the company had agreed to sell 100,000 shares of its capital stock for \$40,000 cash (payment received October 2, 1958); and 100,000 shares were under option at 60¢ per share exercisable by November 30, 1958 (payment received November 28, 1958). Effect to these transactions has been given in the pro forms balance sheet.
- 5. Royalties payable:

  (a) If the company exercises its option to lease mining claims (note 2) a royalty of 50 cents per ton of ore mined is payable to the lessors on uranium ore assaying up to 3½ pounds of U<sub>2</sub>O<sub>2</sub> per ton, with provision for increased amounts should the assays be higher; other ores and minerals are subject to a royalty of 5% of net sale value.
  (b) A royalty of 50 cents per ton is payable on ore mined on claims held under lease from Deer Horn Mines Limited.
  (c) Royalties of 5 cents per ton of ore treated are payable to each of two patent holders.
- 5. Subsidiary company:

  The accounts of the wholly-owned subsidiary company, Rexspar Housing Limited, have not been consolidated because that company has not yet commenced business.

#### REXSPA., MillERALS & CHEMICALS LIMITEL

# STATEMENT OF EXPLORATION AND ADMINISTRATIVE EXPENDITURES DEFERRED

For the period from incorporation on May 4, 1951 to December 31, 1958

	Incorporation		
	on May 4, 1951	Jan. 1, 1958	
	Dec. 31, 1957	Dec. 31, 1958	<b>Balance</b> Dec. 31, 1958
Exploration and Development Expenditures:		***************************************	<del></del>
Surface exploration	<b>\$</b> 135,285.13	\$ 9,013.08	\$ 144,298.21
Diamond drilling	319,463.75		319,463.75
Adit, drifts, raises and portal preparation	91,530.93		91,530.93
Milling tests	68,408.54	2,835.13	71,243.67
Outside exploration	2,920.07	14,560.09	17,480.16
Other development expenses	4,176,25	2,237.25	6,413.50
	621,784.67	28,645.55	650,430.22
Administrative and Corporate Expenses: Other Expenses at the Property:			
Mine management and maintenance	48,887.88	341.45	49,229.33
Mine office salaries and expenses	43,031.68	21,240.36	64,272.04
Engineering fees and expense	56,762.06	60,713.86	117,475.92
General camp expenses	28,583.59	7,445.41	36,029.00
Cookery expenses	32,796.28	6,338.68	39,134.96
Repairs to buildings, roads, and walks	14,547.90	4,920.21	19,468.11
Travelling expenses	9,525.05	2,748.62	12,273.67
Truck expenses	9,025.11	3,249.60	12,274.71
Insurance	6,510.51	2,127.81	8,638.32
Roads, clearing, etc.	28,845.53	163.68	29,009.21
Telephone and telegraph	4,508.85	1.414.60	5,923.45
Taxes and licenses	3,418,77	1.653.17	5,071.94
Bank charges	717.61	265.26	982.87
Equipment and other rentals	442,52	600.00	1,042.52
Medicals, first aid, etc.	314.92	47.10	362.02
Fire protection	85.69	240.80	326.49
Miscellaneous	1,188.15	56.87	1,245.02
	289,192.10	113,567.48	402,759.58
Management fees	80,566.00	40,000.00	120,566.00
Travelling expenses	21.827.03	7,101.66	28,928.69
Legal, audit and accounting fees	16,800.80	27,990.00	44,790.80
Telephone, telegraph and postage	9.882.00	102.42	9,984.42
Listing fees and expenses	6,330.42	1.759.68	8,090.10
Registrar and transfer agent's fees	6,675.26	3,281.32	9,956.58
Advertising	5,615.06	417.19	6,032.25
Printing and stationery	5,724.99	1.200.80	6,925.79
Taxes and licenses	1.036.28	CR. 14.74	1,021.54
Bank charges	144.75	346.92	491.67
Interest	172.10	156.37	156.37
Other administrative expenses	15,610.68	57.87	15,668.55
	170,213.27	82,399.49	252,612.76
Total Expenditures Deferred	\$1,081,190.04	224,612.52	1,305,802.56
		-	

### AUDITORS' REPORT

To the Directors of

Rexspar Minerals & Chemicals Limited:

We have examined the balance sheet and pro forma balance sheet of Rexspar Minerals & Chemicals Limited as at December 31, 1958 and the statement of exploration and administrative expenditures deferred for the period from incorporation on May 4, 1951 to December 31, 1958. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as was considered necessary in the circumstances.

In our opinion the accompanying balance sheet and statement of exploration and administrative expenditures deferred, supplemented by the notes thereto, present fairly the financial position of the company as at December 31, 1958.

In our opinion the accompanying pro forma balance sheet, supplemented by the notes thereto, also presents fairly the financial position of the company at the same date, after giving effect to the transactions set forth in Note I.

A. M. DAVIS, Chartered Accountant, Auditor

GUNN, ROBERTS and Co., Chartered Accountants.

Toronto, Canada, February 1959.

A CHARLETTE TO

## STATEMENT OF ESTIMATED OPERATIONS AND OPERATING RESULTS

(Based on milling of 750 tons per day for first six months and 1235 tons per day thereafter)

		Aug. 1 - Dec. 31 1959	Jan. 1 - Dec. 31 1960	Jan. 1 - Dec. 31 1961	Jan. 1 - Dec. \$1 1962	Jan. 1 - June 15 1963	2,053,125 ibs. of U <sub>z</sub> O <sub>s</sub> under Eldorado Contract
	Pounds U <sub>3</sub> O <sub>3</sub> Produced	149,962	573,256	592,652	168,054		569,200 (g)
	Pounds U <sub>3</sub> O <sub>8</sub> Delivered (a)	149,962	407,457	411,780	411,780 (e)	102,945 (f)	· 569,200
	Gross Operating Revenue (b)	\$1,574,606	\$4,278,303	\$4,323,690	\$4,323,690	\$1,080,922	<b>\$5,976,600</b>
	Gross Cash received (c)	\$1,102,224	\$4,210,224	<b>\$</b> 4,323,690	\$4,323,690	\$1,621,384	<b>\$</b> 5,976,600
	Less Operating Costs	\$ 832,500	\$2,640,328	\$2,698,722	\$ 765,257	Nil (h)	<b>\$2</b> ,591,933
	Net Revenue	\$ 269,724	\$1,569,896	\$1,624,968	\$3,558,433		\$3,384,667
7	Interest on Bonds	(d)	\$ 455,000	\$ 367,500	\$ 280,000	\$ 52,500	Ņil
	Accumulated Net Revenue	\$ 269,724	\$1,384,620	\$1,642,088	\$3,920,521	\$2,489,405	·
	Bonds Redeemed	Nil	\$1,000,000	\$1,000,000	\$3,000,000	\$1,500,000	Nil
	Bonds Outstanding	\$6,500,000	\$5,500,000	\$4,500,000	\$1,500,000	Nil	Nil
	Cash Profits remaining		\$ 384,620	\$ 642,088	\$ 920,521	<b>\$1,349,40</b> 5 (i)	<b>\$</b> 3,384,667 <b>\$</b> 4,734,072

<sup>1.</sup> The estimated monthly Production after the six month tune up period will be 49,588 lbs. which is 15,072 lbs. U<sub>2</sub>O<sub>2</sub> per month in excess of the monthly deliveries of 34,315 lbs. U<sub>2</sub>O<sub>2</sub> to be made.

Additional operating results from delivery of balance of the

<sup>2.</sup> The EXCESS production, to April 15, 1962 of \$94,623 lbs. U<sub>2</sub>O<sub>2</sub>, will enable the Company to make regular monthly deliveries of \$4,515 lbs. U<sub>2</sub>O<sub>2</sub> until March 31, 1963.

<sup>3.</sup> The Net Revenue from such production will be adequate to retire the \$6,500,000 Bond Issue and pay interest thereon. The Company will have from April 1962 to March 31, 1963 in which to produce the additional 569,200 lbs. U.O. to complete the Eldorado Contract.

<sup>a) 34,315 lbs. U<sub>s</sub>O<sub>s</sub> per month after tune up period.
b) Assuming Contract price of \$10.50 per lb. of U<sub>s</sub>O<sub>s</sub>.
c) Assuming 45 day delay in payment for deliveries.
d) 1959 interest paid out of Project Fund.
e) Including stockpile.
f) Out of stockpile.
i) Includes working capital and estimated recoverable inventors.</sup> inventory.

h) Assuming all deliveries are from stockpile.

g) (See note 3).

#### REXSPAR MINERALS & CHEMICALS LIMITED

#### STATUTORY INFORMATION

- (a) The full name of the Company is Rexspar Minerals & Chemicals Limited (hereinafter called the "Company"). The address of the head office of the Company is Room 1007, 36 Toronto Street, Toronto, Ontario.
- (b) The Company was incorporated under Part XI of The Companies Act (Ontario) by letters patent dated May 4, 1951. By supplementary letters patent dated August 29, 1957, the authorized capital of the Company was increased from \$3,500,000 to \$6,500,000 by the creation of 3,000,000 shares with a par value of \$1.00 each.
- (c) The names in full, present occupations and home addresses in full of the officers and directors of the Company are as follows:

	Officers	
President	PHILIP JOSEPH,	
	Executive	
<b>a</b>		Westmount, Quebec.
Secretary-Treasurer		44.75
	Insurance Manager	29 Roseiawn Crescent,
Assistant Canadana	25	Town of Mount Royal, Quebec
Assistant-Secretary	MARVIN AIZER,	water and a second second
	Office Manager	1457 Aylmer Street,
		Montreal, Quebec.
	Directors	
Francis James Brennan, O.B.E.	Executive	33 Seely Street,
, , , , , , , , , , , , , , , , , , , ,		Saint John, New Brunswick.
Francis Gordon Church	Securities Salesman	4840 Bonavista Place
		Montreal, Quebec.
Person Loannes non a con	Executive	, <b>-</b>
THILLP SUSEPH, PH.D., LL.B.	Executive	205 Edgehill Road, Westmount, Quebec.
_		• •
RUSSELL WILLIAM KENNEDY	Barrister	
		Kamloops, British Columbia.
HUGH GRAHAM MACGREGOR	Insurance Manager	29 Roselawn Crescent
		Town of Mount Royal, Quebec.

No person received payment for promotional services as such in connection with the incorporation of the Company and accordingly there is no promoter unless one or more of the vendors of mining claims to the Company referred to in (i) (ii) hereof are taken to have been promoters.

(d) Alexander Mortimer Davis, Chartered Accountant, 55 St. James St. West, Montreal, is the auditor of the Company. Messrs. Gunn, Roberts and Co., Chartered Accountants, 7 Queen Street East, Toronto, have been retained by the Company as consulting accountants for the purpose of this prospectus.

(e) Montreal Trust Company will be the registrar for the 6½% First Mortgage Sinking Fund Bonds (hereinafter called the "Bonds") of the Company and registers upon which coupon Bonds may be registered as to principal and upon which fully registered Bonds shall be registered as to principal and interest and upon which transfers of Bonds so registered shall be recorded will be kept by the said registrar at its offices or agencies in the Cities of Halifax, Montreal, Toronto, Winnipeg and Vancouver. Chartered Trust Company at its offices or agencies in the Cities of Halifax, Montreal, Toronto, Winnipeg and Vancouver is the registrar and transfer agent for the shares of the Company.

(f) The authorized share capital of the Company consists of 6,500,000 shares with a par value of \$1.00 each of which, 4,500,000 shares have been issued and are outstanding as fully paid up. Reference is made to paragraph (n) hereof as to the allotment for issue of a further 1,300,000 shares.

(g) There are no bonds or debentures of the Company outstanding or proposed to be issued except \$4,500,000 principal amount of Bonds and \$2,000,000 Debentures which are to be issued and secured under a deed of trust and mortgage (hereinafter called the "Trust Deed") to be dated as of 1959 and to be made between the Company and Montreal Trust Company, as Trustee. Particulars of the security for the Bonds are set forth under the heading "Certain Provisions of the Trust Deed" on pages and of this proposition of the Trust Deed" on pages and of this provisions of the Trust Deed" on pages. of this prospectus and certain other particulars appertaining to the Bonds and Debentures are set forth on pages • and • of this prospectus to which reference is hereby expressly made.

In addition to the provisions of the Trust Deed to which reference has been expressly made, the Trust Deed will contain definitions of the following terms substantially to the following effect:

"Development Programme" means the programme presently being undertaken by the Company on

its properties in the Province of British Columbia for the purpose of producing uranium-bearing concentrates for sale under the Eldorado Contract to provide sufficient ore for the mill hereinafter referred to, the erection of a mill, including a leaching plant, on the said properties with all necessary machinery and equipment, surface plant and related structures to provide a rated capacity of 1,170 tons of ore per day, with an anticipated average operating capacity, following a six month "tune-up" period, of 1,235 tons of ore per day, and the provision of living accommodation for employees and all mine and mill stores and supplies up to and including the Delivery Date and at the completion of the said programme wor-

king capital of \$204,149.
"Eldorado Contract" means the contract, dated as of January 14, 1957, between the Company and Eldorado Mining and Refining Limited, providing for the sale by the Company of uranium-bearing con-

"Delivery Date" means the date upon which the first regular delivery of uranium-bearing con-

"Minor title defects" means title defects or irregularities which in the opinion of Counsel are of a minor nature and in the aggregate will not materially impair the use of the property for the purposes for which it is held by the Company or materially affect the security for the Bonds including, without limiting the generality of the foregoing, irregularities or deficiencies in the recorded evidence of title to real or immoveable property of more than ten years standing which in the opinion of Counsel can be cured by proceedings within the power of the Company or which, whether or more or less than ten years standing, in the opinion of Counsel, are not serious nature under the facts and circumstances of the case.

"Permitted encumbrances" means at any particular time any of the following encumbrances:

- (i) lien for taxes, rates, assessments or governmental charges or levies not at the time due and delinquent or the validity of which is being contested at the time by the Company in good faith by appropriate proceedings;
- (ii) the lien of any judgment rendered against the Company which the Company shall be contesting in good faith and in respect of which there shall have been deposited with the Trustee cash in an amount sufficient to pay such judgment or a surety bond satisfactory to the Trustee in an amount sufficient for such payment;
- (iii) undetermined or inchoate liens and charges incidental to current construction or current operations which relate to obligations not due or delinquent or which have not at such time been filed and of which written notice has not been served upon the Company pursuant to law;
- (iv) the excess of the amount of any taxes, rates, assessments or governmental charges or levies for which final assessments have not been received over and above the amount of such taxes, rates, assessments or governmental charges or levies as estimated by a responsible officer of the Company;
- (v) any mortgage, hypothec, charge, lien or encumbrance payment of which has been provided for by deposit with the Trustee of an amount in cash sufficient to pay same in principal and interest until the date of its maturity;
- (vi) reservations, limitations, provisoes and conditions expressed in any original grants from the Crown including, without limiting the generality of the foregoing, reservations of timber, sand and gravel and of land for roads but not including reservations of uranium-bearing ore.

"Purchase money mortgage" means a mortgage or other encumbrance given to secure a portion of the purchase price, or to secure monies borrowed to pay a portion of the purchase price, of additional property or an existing mortgage or other encumbrance assumed on property so acquired.

"Subsidiary" means any corporation or company of which more than 50% of the outstanding shares carrying voting rights at all times (provided that the ownership of such shares confers the right at all times to elect at least a majority of the board of directors of such corporation or company) are for the time being owned by or held for the Company and/or any other corporation or company in like relation to the Company and includes any corporation or company in like relation to a subsidiary.

There will be included in the Trust Deed provisions for the release, on certain terms and subject to certain conditions, of property from time to time covered by the first fixed and specific mortgage, pledge and charge or the floating charge referred to under the heading "Security" on page • of this prospectus and the Trust Deed will provide that the Trustee shall from time to time whenever so requested in writing by the Company and without receiving any payment or other consideration therefor except such, if any, as may be received by the Company, consent to the grant of any easement or easements in, over, along and upon any part or parts of the lands subject to the lien of the Trust Deed for the purpose of constructing, operating, maintaining, repairing and replacing any public or other utilities or services including but without limiting the generality of the foregoing, electric power utilities, sewers, tailings disposal systems, telephone lines and water mains, systems and pipes and all conduits, poles, wires, mains, pipes and other equipment appertaining thereto.

(h) Certificates representing in the aggregate 752,000 shares in the capital stock of the Company with a par value of \$1.00 each are held in escrow by Chartered Trust Company, 34 King Street West, Toronto, Ontario. All of the said shares are held subject to release only with the written consent of the board of directors of the Company and the Ontario Securities Commission and subject further to transfer, hypothecation, assignment or other alienation within the escrow only with the written consent of the said Commission.

(i) The shares sold for cash to date and the total cash received therefor are as follows:

5	shares	at	\$1.00	each		8	5.
200,000			W			•	10,000.
200,000				each	***************************************		40,000.
1,000,000	shares	at					250,000.
600,000	shares	at	.30	each			180,000.
200,000	shares	at	.35	each			70,000.
269,995	shares	at			***************************************		107,998.
100,000	shares	at	.45	each			45,000.
500,000	shares	at			***************************************		250,000.
100,000				each	***************************************		60,000.
200,000					***************************************		160,000.
200,000			.90	each	***************************************		180,000.
100,000	shares	at	1.15	each	***************************************		115,000.
3.670.000						\$	1.468.003.

No commission was paid or is payable in respect of the sale of the foregoing shares.

- (j) To the date hereof no securities other than the shares referred to in paragraph (i) hereof have been sold for cash. Reference is made, however, to paragraph (n) hereof for certain particulars of the underwriting agreement relating to the sale of Bonds and shares with a par value of \$1.00 each in the capital stock of the Company.
  - (k) No shares have been issued or cash paid to any promoter for promotional services as such.

(l) (i) and (ii) A The Company holds 149 mineral claims and fractions in the Kamloops Mining Division as follows:

(1) 40 mineral claims and fractions are held under Crown Grants:

Claim Numbers					Name o	f Vendor			Consideration Paid to Vendor
Rex	12 13	M.C. M.C.		**************	E. H. F 3820 Ca	Cellner, mbie St., Var	ncouver		780,000 fully paid shares
"	14	M.C.	5404	***********	"		u		
et .	15	M.C.	5400 5401	******			46		
46 .	16 17	M.C. M.C.	$\begin{array}{c} 5401 \\ 5398 \end{array}$	*****	44		"		
46	18	M.C.	53 <b>9</b> 9		44		16		
ii .	19	M.C.	5396		"		16		
4	20	M.C.	5397		41		"		
"	22	M.C.			··		"		
"	23 24	M.C.	$\begin{array}{c} 5478 \\ 5477 \end{array}$		44		44		
"	<b>2</b> 5	M.C.	5393	~~~~~~	44		"		
"	26	M.C.	5392	**************	"		"		
46	27	M.C.			44		tt tt		
u	30	M.C.							
Spar	1	M.C.	5390		44		"		
44	2	M.C.		******					
Smuggler	1	M.C.	5389	*******	"		66		
Black Diamond	1	M.C.			Robert	Johnon,			50,000 fully
if 11	. 2	M.C.	5387		Birch Is	land, B. Coli	mbia		paid shares
(including 2 buil			****		Ok. Towar	Las Camarana			
Spar	36			~~~	Staked	by Company	Y		
Gord	6		5493 $5487$	****	11	"			
_	8			*************	+4	44			
Jane "	]	FR.	5409 5205	******	"	"			
"	$\frac{2}{3}$		$5395 \\ 5410$		"	"			
"	4		5405		u	"			
"	7	$\mathbf{F} \mathbf{R}$ .	5480		"	"			
	8		5482	*************	"	"			
" "	9		5481		"	"			
	16				44	"			
Lil	5			************	44	44			
"	7 13			*	46	16			
"	15				44	44			
"	18	M.C		*******	"	"			
"	20			************	"	44			
"	$\begin{array}{c} 24 \\ 39 \end{array}$				"	44			
(0) 100				ctions staked	by the Co	mnany ere l	eld by	location	
(2) 109 Mike			B15061	cuons staked		mipany are i	M.C.	107238	
Wilke			B15062		"	ĩ	FR.	B 2547	
(t			B15063	***************************************	"	2	M.C.	122305	
44			B15072		"	2	FR.	B 2548	***********
<i>(</i>		M.C.	B15073		"	3 4	M.C. M.C.	133575 147461	** ************
"	_	M.C. M.C.	B 2148 B 2149	***************************************	"	. 5	M.C.	147462	
"		M.C.	B 2150		44	6	M.C.	147463	*******
"			B 2151		ii.	7	M.C.	147464	
11	10	M.C.	B 2152	***************	14	8	M.C.	B 2546	*****
и и		M.C.	B 2153		C	9.5	M.C.	A86210	
u		M.C. M.C.	B 2154 B 2155		spar	35	M.C.	100210	
44		M.C.	B15074		$\operatorname{Gord}$	1	M.C.	B33301	
					"	2	FR.	B33302	
Jane	<b>5</b>		B 2549	***********	"	3	M.C. M.C.	B33303	***********
£6 ££	· 6		B 2550 B 2558		44	4 5	M.C.	B33304 B33305	
44	11		B 2556		"	7	M.C.	B33307	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
44	12	FR.	B 2554	***************************************	44	9	M.C.	B33309	
"	13	FR.	B 20023			10	M.C.	B33310	
44	14	FR.	B 20024	***********	44 44	11	M.C.	B33311	***************************************
¥ ±1	o د	74 C	D 0100		"	12 13	M.C. M.C.	B33312 B33313	
Lil "		M.C. M.C.	B 2139 B 2140	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	**	14	M.C.	B33314	
44		M.C.	B 2141	**************					
cs .	√ 11	M.C.	B 2142	*******		1	M.C.	B37651	
**	✓ 12	M.C.	B 2143	***************************************	44 44	2	M.C.	B37652	
	. 14	M.C.	B 2145			3	M.C.	B37653	
tt et		M.C.	B 2147	*******************************	"	• 4	M.C.	B37654	

" "	17 M.C. A90026 19 M.C. A90030		5 M.C. B376556 M.C. B37656
u	23 M.C. B15067 27 M.C. B15097	(4	7 FR. B37657 8 FR. B37658
u	28 M.C. B15098	****************	
46 46	29 M.C. B19821 30 M.C. B19822	Don	1-8 inclusive
"	v 31 M.C. B19823	Jill	1-8 inclusive
"	32 M.C. B19824 33 F.R. B19827	Joe	1-8 inclusive
56 56	34 F.R. B15077 40 F.R. B20018	Alpha	1 Fraction
ee .	v 4 M.C. B 2135	***************************************	
	√ 6 M.C. B 2137	Alpha	2 Fraction
Beta	1-3 inclusive	Pete	1-5 inclusive
Cliff	1-4 inclusive		

B. The Company owns in fee simple of the following parcels of land situate in the Kamloops Land Registration District:

		Kamloo	Number ps Divisio District	on 	Vendor		Consideration
Lot	6	D.L.	1419	plan 1951	Birch Island Community Club Birch Island, British Columbia	),	\$2,000.00
		D.L.	4496		Mrs. A. Kjelsrud, Birch Island, British Columbia		\$2,150.00
Part		D.L.	754A		A. Schlichter, Birch Island, British Columbia	•	\$8,000.00
Part		D.L.	2618		Crown	***************************************	\$ 640.00

C. The Company holds 11 mineral claims in the Kamloops Mining Division under a lease dated August 8th, 1958, from Deer Horn Mines Limited, 335 Bay Street, Toronto. The lease is for a term expiring August 8, 1976 and is subject to the payment to the Lessee of fifty cents (50c) per ton for all ore milled from the leased claims. The Company has covenanted to maintain the leased claims in good standing throughout the term of the lease. The leased mineral claims are described as follows:

Clark	Group	√ <b>1</b>	Yule	1	
64	"	· <b>2</b>	44	2	
"	16	. <b>3</b>	"	3	fractional
46	"	. 4	<b>64</b> .	4	fractional
"	"	6	и ,		fractional
46	44	8		•	

D. The Company holds 32 mineral claims in the Kamloops Mining Division under a working option and option to lease dated June 1, 1958, from Douglas Masterton and William Gabry, both of Vavenby, British Columbia. The consideration paid to the optionors was \$1,600. The option provides for the expenditure by the company of a minimum of \$5,000, on preliminary exploration work which by an amending agreement dated December 31, 1958 between the parties must be completed before March 15, 1959 and the payment of a further \$10,000, to the optionors on or before that date if the option is to be extended to January 15, 1960. If the option remains in good standing the Company shall have the right to lease the mineral claims for the purpose of working same for a term which, by an amending agreement dated August 30, 1958, between the parties, expires June 5, 1979. The lease shall provide for the payment of royalties to the optionors on uranium ore mined dependant on the assay value of the ore of from 50c per ton mined to 7½% of the head assay value of the ore mined, and on other ores, of 5% from the net from the sale of such ores.

The mineral claims are described as follows:

Hope 1-8 inclusive
Mil 1-8 inclusive
Val 1-4 inclusive
Tom 1-4 inclusive
Jim 1-8 inclusive

The shares in the capital stock of the Company issued to the vendors of property purchased by the Company as indicated above were issued as follows:

	Address	Free Shares	Escrowed Shares
Јоѕерн Н. Нівзинови	11 Adelaide St. West Suite 902, Toronto, Ontario.	68,750	554,000
EDWARD H. KELLNER	701 Angus Drive, Vancouver, British Columbia	 9,250	25,920

OLE JOHNSON	Chu Chua, British Columbia		20,000
HAROLD FREEMAN	530 Rogers Bldg., 470 Granville Street, Vancouver, British Columbia		8,640
Dr. M. E. Fox	530 Rogers Bldg., 470 Granville Street, Vancouver, British Columbia		8,640
WM. ELLIOTT	255 Hemlock Street, Powers Addition, Kamloops, British Columbia		12,800
L. Hertzberg	Lakeview Mansions, Harrow Street, Vancouver, British Columbia		23,040
OLE BESNER	4430 Cypres Street, Vancouver, British Columbia		23,040
A. E. SJOQUIST	323 Seymour Street, Kamploops, British Columbia		25,920
ROBERT JOHNSON	Birch Island, British Columbia		50,000
		78,000	752,000

The said escrowed shares are held subject to the terms and conditions set out in paragraph (h) hereof.

(iii) Barry Explorations Limited and Edinburgh Investments Ltd., 550 Sherbrooke Street West, (1) (iii) Barry Explorations Limited and Edinburgh Investments Ltd., 550 Sherbrooke Street West, Montreal, Quebec, is the only person, firm or corporation known to the signatories hereof to own more than a 5% interest in the shares received by the foregoing vendors.

(m) Particulars relating to all properties of the Company now owned, including the means of this prospectus to all of which reference is hereby expressly made.

Limited, as underwriters, the Company has agreed to sell and the said underwriters have agreed to buy the \$6,500,000. principal amount % First Mortgage Bonds referred to in this prospectus and 1,300,000 shares with a par value of \$1.00 each in the capital stock of the Company for an aggregate consideration of \$6,056,700. and accrued interest on the principal amount of the 6½% First Mortgage Bonds from February 16, 1959, to the date of delivery, payable in cash (Canadian funds) to the Company all upon the terms and conditions set out in the said agreement, the said purchase and sale to be closed by February 27, 1959. Out of the said aggregate consideration the underwriters will receive \$162-500 for services as fiscal agents.

The said underwriters may have associated with them other dealers for the public distribution of the 6½% First Mortgage Bonds and Sinking Fund Debentures in which event the said dealers may acquire 6½% First Mortgage Bonds, Sinking Fund Debentures and shares at a net price less than the then offering price to the public-

The names of every person having an interest directly or indirectly to the extent of not less than 5% in the capital of the said underwriters and the addresses of the said underwriters are as set forth on page ..... of this prospectus to which reference is hereby expressly made.

(o) The details of future development and exploration plans of the Company's management showing how it is proposed to expend the proceeds from the issue and sale of the Bonds and the said 1,300,000 shares are as set forth on pages 2 to 5 inclusive, of this prospectus and under the headings "Project Fund" on page 6 of this prospectus to all of which reference is hereby expressly made.

(p) The Company has been incorporated for more than one year.

(q) No indebtedness is to be created or assumed by the Company except as hereinafter stated, which is not shown on the Pro Forma Balance Sheet of the Company as at December 31, 1958, in this prospectus. The Company may arrange a future operating revolving credit from a chartered bank which may be secured in priority to the floating charge under the Trust Deed and on the Eldorado Contract in priority to the specific charge thereon under the Trust Deed. Reference is also made to the Company's wholly-owned subsidiary referred to under the heading "Subsidiary" on page 5 of this prospectus and particularly to Rexspar Housing Limited which was incorporated for the purpose of providing living accommodation for employees of the Company. The cost of providing essential services for such living accommodation will be paid for by Rexspar Housing Limited out of funds supplied by the Company.

\$30,000 has been allocated by the Company for such purpose.

(r) (i) Particulars of the principal business in which each director and officer of the Company has been engaged during the past three years, the length of time, position held and name of company

or firm are as follows:

MERVIN AIZER ...... Office Manager of Drummond Holdings Limited, Montreal, Quebec.

Franci. James Brennan, o.B.E.	President of F. J. Brennan & Company Limited, Saint John, New Brunswick.						
Francis Gordon Church	Securities Salesman with Canadian Alliance Corporation from Nov. 1955 to May 1957. Securities salesman with Jackson, McFadyen Securities Limited from May 1957 to date.						
PHILIP JOSEPH, PH.D., LL.B.	President of Five Fifty Sherbrooke West Corporation Limited, Montreal, Quebec.						
RUSSELL WILLIAM KENNEDY	Barrister and Solicitor, has practised as a partner in the firm of Kennedy and Andrews and Taylor, Kam- loops, British Columbia.						
HUGH GRAHAM MACGREGOR	a branch manager with Crown Life Insurance Company, Montreal, Quebec.						
(ii) No director or officer of the Company property acquired or to be acquired by the Company	has ever had any interest direct or indirect in any y.						
(iii) No remuneration has been paid or is fiscal year to directors or officers of the Company	estimated to be paid or payable during the current						
(s) No dividends have been paid by the C	Company.						
(t) The signatories hereto have no knowledge of any persons except Barry Exploration Limited, 550 Sherbrooke Street West, Montreal, Quebec, who by reason of beneficial ownership of securities of the Company or any agreement in writing are in a position to or are entitled to elect or cause to be elected a majority of the directors of the Company.							
dated as of January 14, 1957, under the terms of terms of such contract, uranium-bearing concentrate value of approximately \$21,557,812. are set out undof this prospectus to which reference is hereby expected to the set of the set	(u) Particulars of the contract between Eldorado Mining and Refining Limited and the Company dated as of January 14, 1957, under the terms of which Eldorado has agreed to purchase, subject to the terms of such contract, uranium-bearing concentrates from the Company to a total estimated contract value of approximately \$21,557,812, are set out under the heading "Eldorado Contract" on pages 3 and 4 of this prospectus to which reference is hereby expressly made. Certain material facts concerning the said contract may not be disclosed in this prospectus owing to security reasons.						
Particulars of the contract between Sherritt Gordon Mines Limited and the Company dated July 31, 1957, relating to the use by the Company of patents and processes owned or controlled by Sherritt Gordon Mines Limited are set out under the heading "Sherritt Gordon Contract" on page 5 of this prospectus to which reference is hereby expressly made.							
Particulars of the contract between Canadian Patents and Development Limited and the Company dated January 8, 1957, relating to the patent owned by Canadian Patents and Development Limited entitled "Leaching Uranium from Sulphitic Materials" are set out under the heading "Canadian Patents and Development Limited Contract" on page 5 of this prospectus to which reference is hereby expressly made.							
(v) There are no other material facts known to the signatories hereto.							
Dated January,							
The foregoing constitutes full, true and plain disclosure of all material facts in respect of the offering of securities referred to above as required by Section 38 of The Securities Act (Ontario) and Section 38 of The Securities Act, 1954 (Saskatchewan) and Section 13, subsection (3) (f), of the Security Frauds Prevention Act (New Brunswick) and Section 45 of The Securities Act, 1955 (Alberta) and under the Quebec Securities Act, and there is no further material information applicable other than in the financial statements or reports where required or exigible.							
DIRECTORS							
Рипле Јоѕери	Hugh Graham MacGregor						
FRANCIS JAMES REENNAN ORE	Francis Gordon Church						

RUSSELL WILLSAM KENNEDY

To the best of our knowledge information and belief, the foregoing constitutes full, true and plain disclosure of all material facts in respect of the offering of securities referred to above as required by Section 38 of The Securities Act, (Ontario) and Section 38 of The Securities Act, 1954 (Saskatchewan) and Section 13, subsection (3) (f), of the Securities Frauds Prevention Act (New Brunswick) and Section 45 of The Securities Act, 1955 (Alberta) and under the Quebec Securities Act, and there is no further material information applicable other than in the financial statements or reports where required or exigible. In respect of matters which are not within our knowledge we have relied upon the accuracy and adequacy of the foregoing.

#### **UNDERWRITER**

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		by	•	••••••••••••••••••••••••••••••••••••••	••	***********	

The following are the names of every person having an interest, either directly or indirectly, to the extent of not less than five per centum in the capital of F. J. Brennan & Company Limited, 85 Prince William Street, Saint John, New Brunswick:

FRANCIS J. BRENNAN, O.B.E. E. MANNING BAGNALL