# Midland Doherty

# REGIONAL RESOURCES LTD.: THE MIDWAY PROJECT

RECOMMENDATION: BUY

#### INTRODUCTION

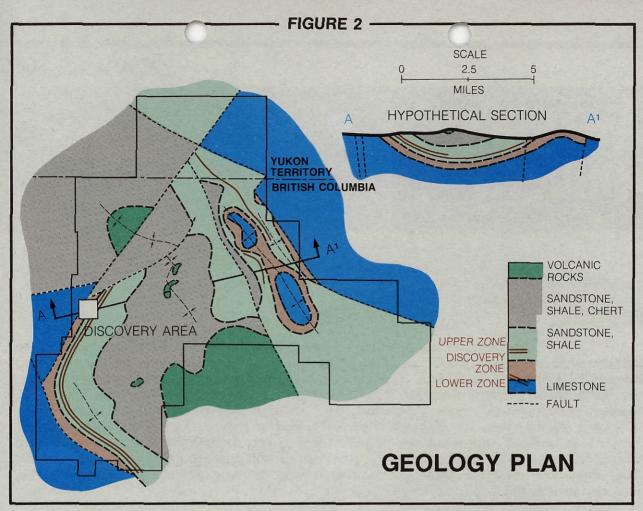
Strengthening precious metal prices during the past few years have led to renewed exploration by a number of senior and junior mining companies. Recently, Canada's two most exciting areas of mining exploration have been along the north shore of Lake Superior (the Hemlo gold camp and Falconbridge Copper's Winston Lake base metals property), and on the British Columbia-Yukon border (Regional Resources Ltd.'s Midway silver-zinc-lead and barite deposit). The Midway Project is one of the most significant new silver discoveries in recent Canadian mining history. We regard shares of Regional Resources Ltd. at \$5.50 as representing excellent value for investors desiring a long term exposure to silver at the exploration and development stage.

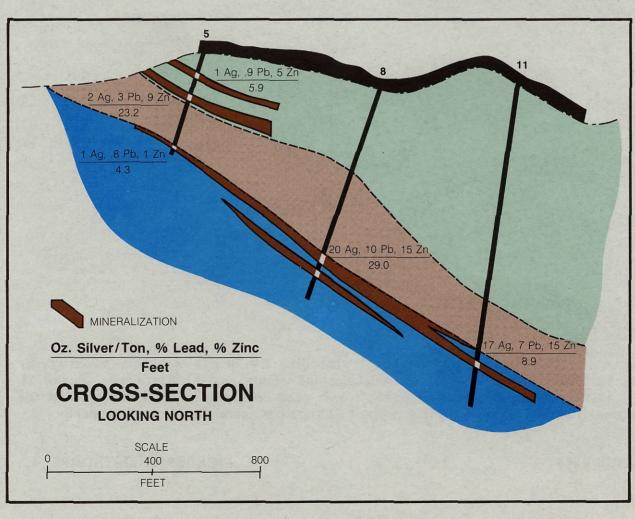
Figure: 1



#### LOCATION

The Midway property straddles the British Columbia-Yukon border approximately 80 km west of Watson Lake and 275km east of Whitehorse (Figure 1). It is accessible by means of a 23km bush road commencing from Mile 706 on the Alaska Highway. Two adjoining properties together form the Midway Property:





- i) the "Midway Property" originally staked by Regional Resources Ltd. on which the discovery is located.
- ii) the "Brinco Property" originally staked by Brinco Mining Limited.

#### HISTORY

Regional Resources Ltd. is a corporate vehicle organized by professional mining men to back grass roots mineral exploration. It acquired several properties in 1979 which resulted in an underwriting to support ongoing work programs. During 1980, the company funded a geological-geochemical reconnaissance program in the southern Yukon and northern British Columbia which revealed anomalous lead, zinc, silver, and barite values over the Midway area. Prospecting led to the discovery of stratiform barite and recognition of an environment similar to that of other shale-hosted base metal deposits. Further late-season prospecting uncovered a massive sulphide horizon near the old Silvertip property, a previously explored carbonate hosted silver-lead-zinc "vein" deposit. That exposure is the site of the Midway Discovery. Amax Canada Ltd. and other major mining companies were active in the area surrounding the discovery. Amax, recognized the potential and a deal was made in early 1981.

Amax acquired from Regional the right to earn a 49% interest in the Midway Property by agreeing to fund \$4.0 million of expenditures by February 28, 1984 and paying Regional \$600,000 in option payments. Amax may acquire an additional 11% interest in the Midway Property by paying Regional a further \$2.6 million and granting Regional a 4% net smelter return royalty upon becoming vested with the initial 49%. Regional will be the operator of the Midway Project at least until February 28, 1984. To date, approximately \$3.0 million of the \$4.0 million funding requirement has been expended and the \$600,000 option payments have been made.

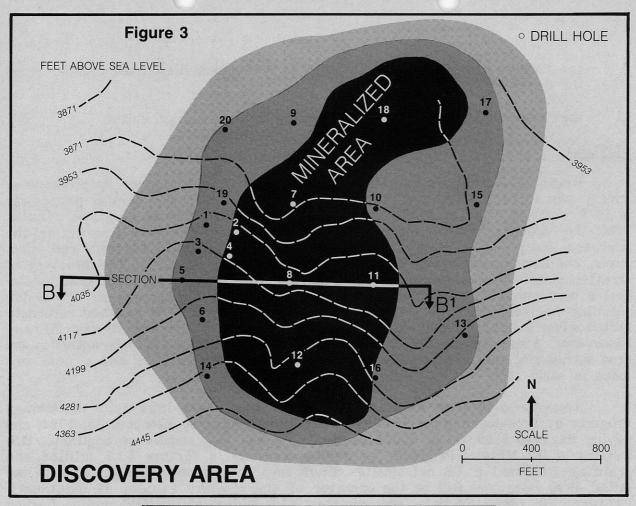
Procan Exploration Company (Procan) owns 50% of Amax's interest in the Midway Project. Procan is a partnership among Nelson Bunker Hunt, William Herbert Hunt and Lamar Hunt.

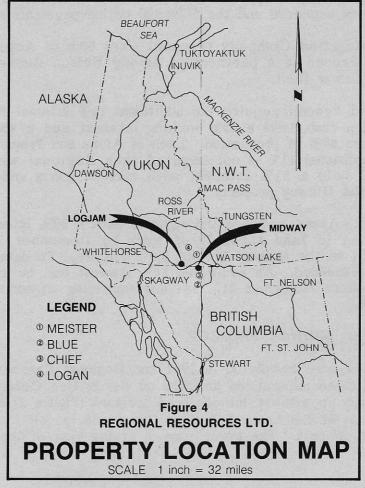
If Amax and Procan acquire the additional 11% interest Regional will have received \$3.2 million cash, have a 40% working interest and a 4% royalty of net smelter returns from 60% of production. Each of Amax and Procan will have a 30% interest. If the additional 11% is not acquired then Regional will have received \$600,000 and will hold a 51% interest with each of Amax and Procan holding a 24.5% interest in the Midway property.

In early 1982, Amax acquired the right to earn a 50% interest in the Brinco Property by agreeing to fund \$500,000 of work by December 31, 1984. Amax assigned this right to the Midway Project joint venture. To date, \$172,000 of the \$500,000 has been expended. An additional 10% interest can be earned by paying Brinco \$200,000 before December 31, 1984 and expending an additional \$500,000 by December 31, 1986.

#### RESULTS TO DATE: MIDWAY PROJECT

Six drill holes were completed in 1981 and Regional Resources Ltd. as operators had identified three mineralized horizons on the British Columbia side of the property. The two uppermost mineralized horizons (Figure 2) are in interbedded shales and sandstones of the Lower Sylvester Group and exhibit the characteristics of a shale-hosted deposit. The lower zone is at the base of the shales and sand-





stones where they overlie carbonate (limestones) rocks of the McDame Group therefore exhibiting the characteristics of a Mississippi Valley-type deposit (carbonate-hosted). Diamond drilling in 1982 (15 holes, Figure 3) consistently returned lower zone intersections of high grade silver, zinc and lead mineralization over an area of 1,500 feet by 2,000 feet. Preliminary estimates of the geological reserve the power zone are in in the order of 3.5 million tons with an estimated average grade of 12 ounces per ton silver, 12.0% zinc and 6.0% lead. This deposit has not been fully delineated. It is still open to the north, south, and down dip and potential exists for greater tonnage. A diamond drilling program is planned for the 1983 field season (see Appendix 3). Drilling may be categorized as follows;

- 1. Fill in drilling of the lower zone for continuity of existing tonnage.
- 2. Drilling to the north and south of the discovery to expand known reserves.
- 3. Reconnaissance drilling to the west and south of the deposit.

Elsewhere on the property, a discovery of readily accessible high quality barite has been made but we do not consider its value in this report.

#### OTHER EXPLORATION PROPERTIES

During 1982, Logtung Resources Ltd. became a wholly-owned subsidiary of Regional Resources Ltd. No field exploration was undertaken at its Logjam Creek tungsten-molybdenum property (Figure 4) during 1982. Under option to Amax, who as operator, has expended in excess of \$5 million in bringing this project to the pre-feasibility phase, geological reserves of 254 million tons grading 0.104% tungsten trioxide and 0.050% molybdenum disulphide have been outlined. To date, Amax has paid Logtung \$1 million in option payments to earn a 60% interest in the project. To retain its position Logtung must reimburse Amax for 40% of all expenditures in excess of \$2 million. As Logtung does not intend to make this repayment, its 40% interest automatically converts to a 20% net profits royalty after payback with Logtung entitled to receive annual advance royalty payments of \$100,000 per year for ten years starting in 1984.

In addition to its interest in the Midway Project and the Logtung tungsten molybdenum properties, Regional owns several other prospects in the Midway area. Four of these are considered to hold excellent promise (Figure 4).

#### 1. MEISTER - Zinc, Lead, Silver

Located nine miles from the Alaska Highway, stratiform mineralization occurs within lithologies comparable to those of the Faro district to the north. Grab samples from a 500 foot zone have returned assays of 41.93% zinc, 0.08% lead and 5.2 ounces per ton silver.

Recently, Regional announced the optioning of its Meister property to Getty Canadian Metals Limited, a wholly-owned subsidiary of Getty Oil Company. Pursuant to the agreement, Regional will act as operator until such time as Getty earns a 50% interest via payments of \$1 million plus exploration expenditures of \$4.5 million through 1987. The \$1 million is payable in installments of \$200,000 in February 1983 (now paid), optional payments of \$100,000 in February 1984 and 1985 and \$300,000 in 1986 and 1987. Minimum cumulative property expenditures by Getty

required to maintain its interest are \$500,00 by December 31, 1983; \$1,000,000 by December 31, 1984; \$1,750,000 by December 31, 1985; \$2,500,00 by December 31, 1986 and \$4,500,00 by December 31, 1987.

Within 60 days after acquiring the 50% interest in the property Getty may assume an additional 10% interest by paying Regional \$200,000 and assuming all expenditures on the property until a production decision is made. If Getty does not exercise its option to acquire an additional 10% interest, then Getty will pay all exploration expenses on the property until a production decision is made at which time Regional must either reimburse Getty for 50% of the expenditures incurred between the time when Getty acquires the 50% interest and the production decision is made or revert to a 15% net profit interest. A program estimated to cost \$630,000 is proposed for 1983 which will include diamond drilling.

## 2. BLUE - Lead, Zinc, Silver

Mineralization is located within the same stratigraphic units as at Midway. Four showings along a five mile strike length contain material which grades up to 32.54% lead, 15.30% zinc and 0.5 ounces per ton silver.

#### 3. CHIEF - Lead, Zinc, Silver, Barite

Boulders of massive sulphide grading up to 10.05% zinc occur within an area of strong, coincident geophysical anomalies. Elsewhere, a 20 foot thick barite exposure of high purity and specific gravity has been located.

## 4. LOGAN - Zinc, Silver, Copper, Tin

A vein system is hosted in altered granodiorite. Sampling from "Main Vein" which has indicated dimensions of 2,500 feet by 5 feet have returned assays of up to 35.88% zinc, 10.87 ounces per ton silver and 1.42% copper. Sub-parallel veins contain up to 16.35 ounces per ton silver and 1.42% tin.

#### THE COMPANY

Regional Resources limited has an excellent balance sheet, with no debt and working capital in excess of \$2.8 million cash. There are presently 4,748,600 shares issued and outstanding and options for 280,000 are reserved for issuance to directors and for field exploration incentives at \$1.75 per share until May 31, 1987. Logtung Resources Ltd., a wholly owned subsidiary, owns 750,500 shares and therefore on a consolidated basis there are 3,998,100 issued shares. Shares of the company trade on the facilities of both the Vancouver and Toronto Stock Exchanges.

-1983		Recent Pric		
<u>High</u>	Low	April 1983		
\$6.80	\$4.75	\$5.50		

#### EVALUATION OF THE MIDWAY DEPOSIT

In order to assign a value to Regional's participation in the development of the Midway silver-zinc-lead deposit, a series of cash flow and net present value estimates were made. The following estimates and assumptions were incorporated in the analysis:

- 1. <u>Capital Costs and Financing</u>. Our projections assume a 1986 commencement of operations at 1500 tons per day and we estimate that capital costs for the project will be on the order of \$75 million in 1981 Canadian dollars. Details of this estimate are presented in Appendix 1. It is assumed that Regional's share of these costs will be debt-financed at an interest rate of 18%.
- 2. Operating Costs. We calculate operating costs will run between \$45-\$50 per ton of ore and shipping costs will be between \$90-\$100 per ton of concentrate, all in 1981 Canadian dollars.
- 3. <u>Inflation and Discounting</u>. Operating and shipping costs are assumed to rise at a rate of 10% per annum over the life of the mine. Cash flows are discounted at 15%. The Canadian/U.S. dollar exchange rate is set at \$1.22.
- 4. Ore Reserves. Separate calculations are made using pessimistic assumptions (i.e. no further reserves are found) 3 million tons grading 12 oz/ton silver, 12% zinc and 6% lead The optimistic assumptions suggest i.e. reserves are doubled during the 1983 field season to 6 million tons of similar grade ore.
- 5. Metal Prices. Lead and zinc prices are held constant in real dollars over the mine life. Two cases were run for silver, holding prices constant in real dollars and increasing 10% per year in real dollars. All metal price forecasts used are cyclical and in the interests of conservatism are assumed to be at cyclical lows during the initial two years of mining. Full details of metal price forecasts used in the analysis are presented in Appendix II.
- 6. <u>Mining Taxation</u>. We assume "status quo" in the Federal and Provincial Mining Legislation affecting this development.

Schedule 1, sets out a "Base Case" for the Midway Deposit. It assumes no additional tons are found but fill-in drilling confirms the present 3 million ton estimate. Metal prices are held constant in real dollars.

<sup>&</sup>lt;sup>1</sup>Capital costs are estimated from C.I.M.M. Spec. Vol. 25, 1982 "Mining and Mineral Processing Equipment Costs and Preliminary Capital Cost Estimations", and discussions with the management of Regional Resources Ltd. and Amax of Canada Ltd.

# SCHEDULE 1 BASE CASE

		1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	
Silver	\$US	11.00	17.85	17.22	10.34	8.45	17.72	28.75	27.74	16.65	13.60	28.53	46.31	
Zinc	\$US	0.38	0.43	0.45	0.41	0.43	0.55	0.69	0.72	0.66	0.69	0.88	1.11	
Lead	\$US	0.25	0.29	0.32	0.29	0.25	0.28	0.39	0.52	0.57	0.52	0.45	0.49	
Reserves	Million Tons	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	
Exchange	\$US/\$Cdn	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	
Tons/Day		0	0	0	1500	1500	1500	1500	1500	1500	1500	1500	1500	`
Tons Left	Million	3.69	3.69	3.69	3.20	2.70	2.21	1.71	1.22	0.72	0.23	0.00	0.00	)
Cast/Ton	\$Cdn	56.37	62.01	68.21	75.03	82.54	90.79	99.87	109.86	120.84	132.93	146.22	160.84	
Revenue	Million \$Cdn	0.00	0.00	0.00	83.54	72.82	126.46	194.10	196.70	139.91	123.16	92.28	0.00	
Op Cost	ŧ	0.00	0.00	0.00	37.14	40.86	44.94	49.44	54.38	59.82	65.80	32.90	0.00	
Cash Flow	u	0.00	0.00	0.00	46.40	31.96	81.51	144.66	142.33	80.09	57.36	59.38	0.00	
RGL Share	7.	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	
RGL C.F.	#	0.00	0.00	0.00	23.66	16.30	41.57	73.78	72.59	40.85	29.26	30.28	0.00	
Prov.Tax	#	0.00	0.00	0.00	0.00	0.12	7.24	15.76	18.58	9.32	5.89	6.23	0.00	
Fed.Tax		0.00	0.00	0.00	0.00	0.00	2.89	14.83	16.21	10.76	7.33	7.67	0.00	
Tax Load	Ħ	0.00	0.00	0.00	0.00	0.12	10.54	32.66	37.06	21.58	14.25	14.97	0.00	
Tax Rate	7.	0.00	0.00	0.00	0.00	0.11	0.27	0.46	0.54	0.58	0.55	0.55	0.00	
Cap Costs		0.00	26.03	28.64	0.00	4.00	5.00	5.00	5.00	3.00	3.00	3.00	3.00	
Interest	ts.	0.00	4.69	9.84	5.58	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
NetCashFlo	¥ "	0.00	-4.69	-9.84	-5.58	-2.76	16.33	41.12	35.53	19.26	15.01	15.31	0.00	
-PerShare		0.00	-1.17	-2.46	-1.40	-0.69	4.08	10.28	8.88	4.82	3.75	3.83	0.00	)

It is highly likely that total expenditures by Amax should reach \$4.0 million by February 29, 1984. Amax may acquire a further 11% equity, for a total of 60%, by paying Regional \$2.6 million and granting the latter company a 4% net smelter return as royalty. In our Base Case we have assumed that Regional retains a 51% interest in the property. Analysis employing the 40% interest, 4% N.S.R. did not significantly impact the Net Present Value per Regional share.

NPV 15%

-PerShare

Million \$Cdn

\$Cdn

32.03

8.01

#### DISCUSSION

The "Base Case" yields a net present value per Regional share of \$8.01. The results of doubling the tonnage and/or inputting a silver price with 10% real growth are presented below:

	RESERVE TONNAGE 3 Million	6 Million	
SILVER PRICE		·	
Constant 10% Real Growth	\$8.01 \$15.80	\$18.42 \$46.89	

TABLE 1: NPV per share under varying silver price and reserve base conditions

The net present values increase dramatically if the firm is able to continue adding to reserves or if silver prices exceed the rate of inflation. Furthermore, analysis revealed that, holding all other variables constant, the silver price must decline to \$4.00 per ounce (U.S. constant dollars) for the net present value of the project to be less than zero.

Regional's participation in the Midway deposit appears to be sufficient grounds alone for purchase of its common shares. The share price is less than its portion of the NPV of the Base Case projection which assumes no further exploration success, no real growth in metal prices and lower than current metal prices during the first two years of operation.

#### SUMMARY

The Midway deposit is one of a number of excellent exploration discoveries made in the past few years. To a certain extent, it has been overshadowed by the dramatic events at Hemlo, Ontario and more recently by drilling success in Washington State. The share prices of most companies involved in these two plays appear to incorporate high "expectations" either for exploration success or metal prices. We find shares of Regional Resources to represent excellent value at current levels both in an absolute and a relative sense. In our opinion, either political, metal price, and exploration conditions must deteriorate significantly for the shares to be worth less than current market prices. The single reservation we have towards purchase at this time is the imminence of a Provincial election in British Columbia and the possibility of a shift towards harsher regulations governing that province's mining industry. Regional Resources qualifies under the criteria we look for in a junior resource development company; an excellent development project, several promising new properties under investigation, a healthy balance sheet and competent management which has structured its deals to preserve shareholder equity.

# **APPENDIX 1**

### Estimated Capital Costs Midway Deposit

	Midway Deposit
Mining	
Parameters	
Tons per Day	1500
Depth of Shaft - Feet	1250
Stope Width - Feet	.15
Mining Method	Cut and Fill
Dip of Orebody -Degrees	30
Mining Dilution Factor -%	23
Mine Grade - % Zinc	12
- % Lead	6
- Oz. Silver	12
Cost Estimates - \$1981	Million
Rectangular Shaft-190Sq.Ft.	1.91
Mine development	9.73
Hoist	1.62
Headframe	0.68
Compressor	0.64
Mining& Maint Equipment	4.48
Feasibility	1.26
Super & Admin	3.18
Total Mining	31.51
Processing Plant	
Parameters	
Site	Steep, Blasting Required
Support	Solid Rock
Climate	Severe
Grind	Medium-Soft
Process	Flotation- Simple Base
LL OFE33	i incacion aimbic pasc
Facilities	Bunkhouse
Facilities Water Power Type	Bunkhouse
Facilities Water	Bunkhouse Plentiful <5 miles
Facilities Water Power Type	Bunkhouse Plentiful <5 miles Diesel
Facilities Water Power Type Power Load – KW	Bunkhouse Plentiful <5 miles Diesel 4515
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead %	Bunkhouse Plentiful <5 miles Diesel 4515 53
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc %	Bunkhouse Plentiful <5 miles Diesel 4515 53 53
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead %	Bunkhouse Plentiful ⟨5 miles Diesel 4515 53 53 0.95
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc %	Bunkhouse Plentiful ⟨5 miles Diesel 4515 53 53 0.95 0.95
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles	Bunkhouse Plentiful ⟨5 miles Diesel 4515 53 53 0.95 0.92 0.89
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate	Bunkhouse Plentiful ⟨5 miles Diesel 4515 53 53 0.95 0.92 0.89 362
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet Costs Estimates \$ 1981	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet Costs Estimates \$ 1981 Clear, Excavate	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet Costs Estimates \$ 1981	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet Costs Estimates \$ 1981 Clear, Excavate	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn. 1.27 1.10 2.47
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn. 1.27 1.10 2.47
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn. 1.27 1.10 2.47 7.41
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn. 1.27 1.10 2.47 7.41 2.84
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken Power, Lines	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn. 1.27 1.10 2.47 7.41 2.84 5.35
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn. 1.27 1.10 2.47 7.41 2.84 5.35 1.66
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn. 1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply Plant Services	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn. 1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90 1.02
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply Plant Services Access Housing	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.  1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90 1.02 5.23 7.88
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply Plant Services Access	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn. 1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90 1.02 5.23
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply Plant Services Access Housing	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.  1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90 1.02 5.23 7.88
Facilities Water Power Type Power Load - KW Concentrate Brade-Lead % -Zinc % Mill Recoveries -Lead % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply Plant Services Access Housing Feasibility, Super, Admin	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.  1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90 1.02 5.23 7.88
Facilities Water Power Type Power Load - KW Concentrate Grade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply Plant Services Access Housing	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.  1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90 1.02 5.23 7.88 8.01
Facilities Water Power Type Power Load - KW Concentrate Brade-Lead % -Zinc % Mill Recoveries -Lead % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Grind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply Plant Services Access Housing Feasibility, Super, Admin	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.  1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90 1.02 5.23 7.88 8.01
Facilities Water Power Type Power Load - KW Concentrate Brade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Brind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply Plant Services Access Housing Feasibility, Super, Admin  Total Mill & Ancillary	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.  1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90 1.02 5.23 7.88 8.01
Facilities Water Power Type Power Load - KW Concentrate Brade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Brind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply Plant Services Access Housing Feasibility, Super, Admin  Total Mill & Ancillary	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.  1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90 1.02 5.23 7.88 8.01
Facilities Water Power Type Power Load - KW Concentrate Brade-Lead % -Zinc % Mill Recoveries -Lead % -Zinc % -Silver % Tons/Day Concentrate Road Construction -Miles Bridge Construction -Feet  Costs Estimates \$ 1981 Clear, Excavate Foundation Crush, convey Mill Buildings, Brind, Storage Flotation, Filter, Thicken Power, Lines Tailings, Environmental Water Supply Plant Services Access Housing Feasibility, Super, Admin  Total Mill & Ancillary Total Mine & Mill	Bunkhouse Plentiful <5 miles Diesel 4515 53 53 0.95 0.92 0.89 362 12 80 Millions Cdn.  1.27 1.10 2.47 7.41 2.84 5.35 1.66 0.90 1.02 5.23 7.88 8.01 45.14

#### APPENDIX 2

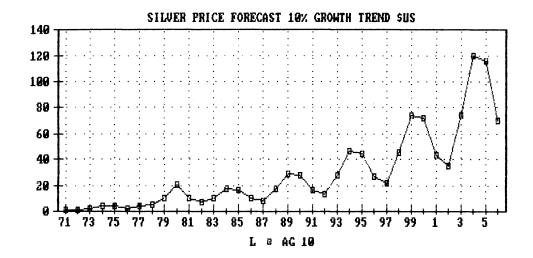
### METAL PRICE FORECASTS

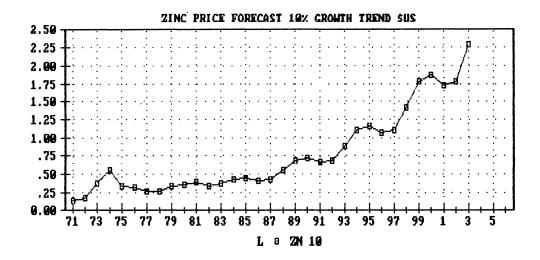
Metal price forecasts must accommodate the inevitable cyclicality inherent in metal prices caused by inflationary conditions and expectations normal world economic cycles. The projections used in this report use forecast prices based on sine curve with amplitudes and periods corresponding to each metals' historical pattern. The cyclical pattern of each metal is then superimposed on a growth trend deemed appropriate for the particular metal but in all cases the trough of a cycle is made to coincide with the initial two years of production to determine whether the project can withstand the associated reduced revenues. Actual prices used in our analyses are presented in tabular and graphic form below.

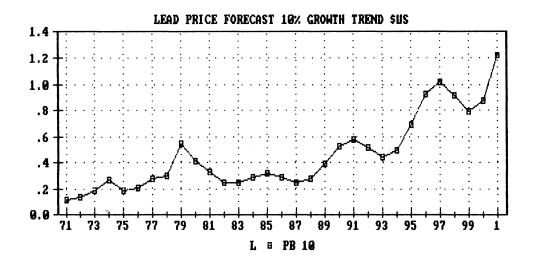
	Silver 10%	Zine 10%	Lead 10%
1971	1.54	0.14	0.12
1972	1.69	0.17	0.14
1973	2.34	0.38	0.19
1974	4.71	0.56	0.27
1975	4.42	0.34	0.19
1976	2.42	0.32	0.21
1977	4.63	0.27	0.28
1978	5.42	0.27	0.30
1979	11.11	0.34	0.55
1980	20.87	0.35	0.41
1981	10.52	0.39	0.33
1982	8.00	0.34	0.25
1983	11.00	0.38	0.25
1984	17.85	0.43	0.29
1985	17.22	0.45	0.32
1986	10.34	0.41	0.29
1987	8.45	0.43	0.25
1988	17.72	0.55	0.28
1989	28.75	0.69	0.39
1990	27.74	0.72	0.52
1991	16.65	0.66	0.57
1992	13.60	0.69	0.52
1993	28.53	0.88	0.45
1994	46.31	1.11	0.49
1995	44.67	1.16	0.69
1996	26.81	1.07	0.92
1997	21.91	1.11	1.02
1998	45.95	1.42	0.92
1999	74.58	1.79	0.79
2000	71.94	1.87	0.87
2001	43.18	1.72	1.22
2002	35.28	1.78	1.64
2003	74.00	2.29	1.80
2004	120.11	2.88	1.63
2005	115.86	3.01	1.40
2006	69.55	2.78	0.00

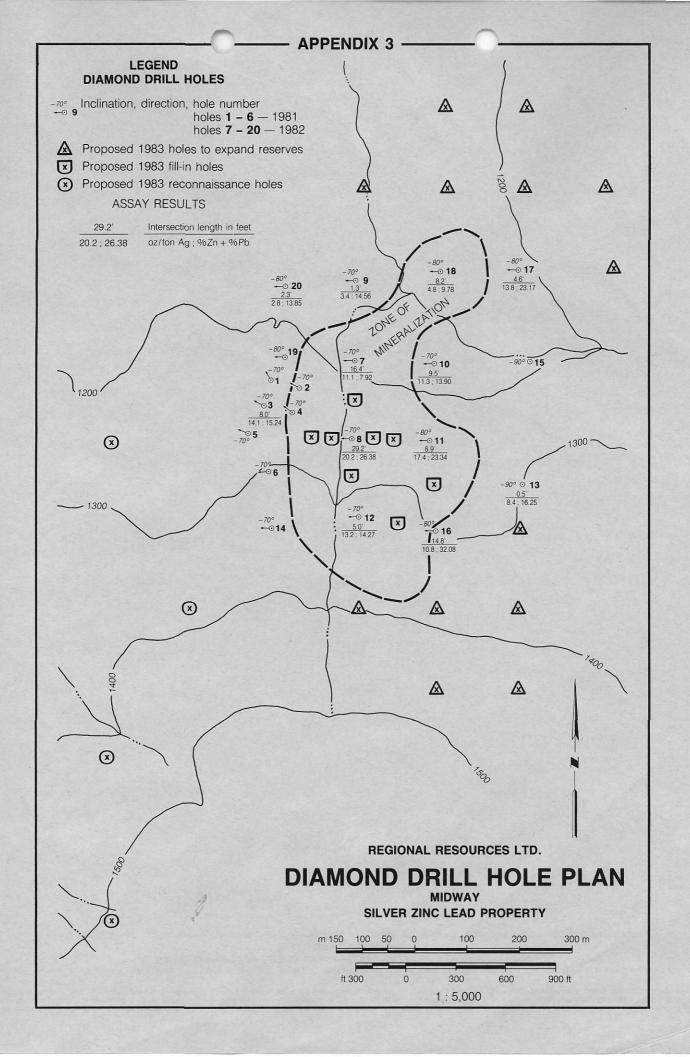
All Values \$U.S. Funds

# **METAL PRICE FORECASTS**









\*DAVID B. WELDON, \*P.N. HOLTBY, \*J.H. ELIOT, \*D.H. PAGE, \*J.R. BARTON, \*I.A. FALCONER, \*M. GAASENBEEK, \*W.J. O'CONNOR, JR., \* G.F. RYLEY, L.E. WHITE \*EXECUTIVE COMMITTEE

MEMBERS: ALL CANADIAN STOCK EXCHANGES, INVESTMENT DEALERS ASSOCIATION OF CANADA

OFFICES: ONTARIO - NEW BRUNSWICK - NOVA SCOTIA - QUEBEC - MANITOBA - SASKATCHEWAN - ALBERTA - BRITISH COLUMBIA - UNITED STATES - UNITED KINGDOM - W. GERMANY

The information contained herein is based on sources which we believe reliable but is not guaranteed by us and may be incomplete. Any opinion expressed herein is based solely upon our analysis and interpretation of such information and is not to be construed as an offer or the solicitation of an offer to buy or sell the security mentioned herein. This firm and/or its individual officers and/or its representatives and/or members of their families may have a position in the securities mentioned and may make purchase and/or sales of these securities from time to time in the open market or otherwise.