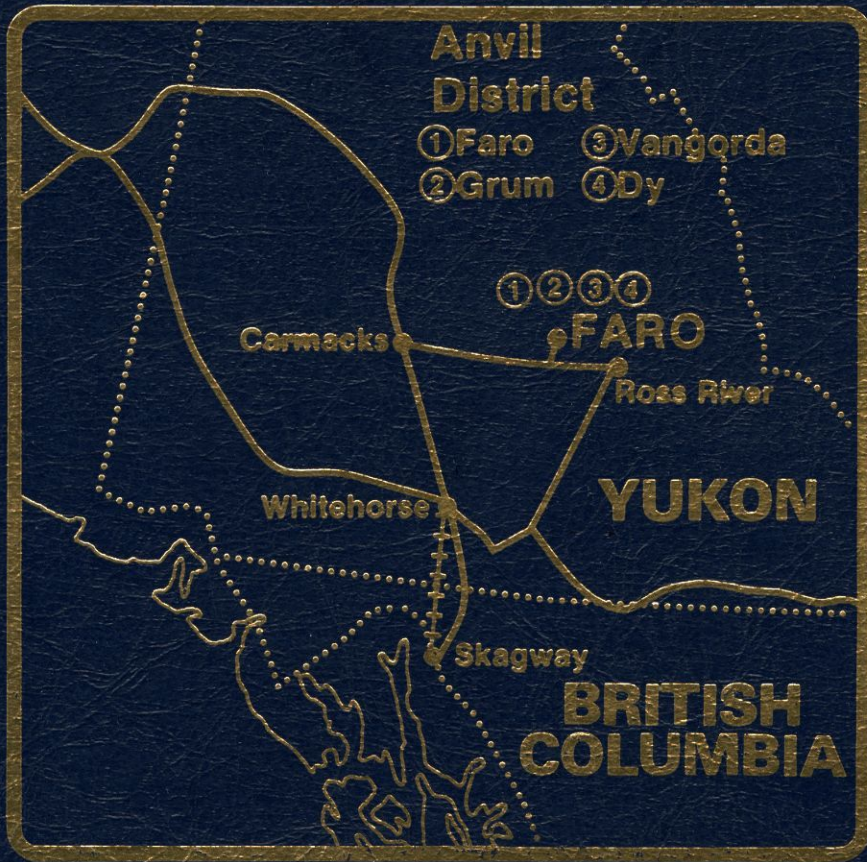


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CYPRUS ANVIL



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CYPRUS ANVIL MINING CORPORATION

Information for Prospective Purchasers

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March 1984

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INTRODUCTION

Divestiture Program

Dome Petroleum Limited ("Dome Petroleum") is seeking offers for its interest in Cyprus Anvil Mining Corporation ("Cyprus Anvil"). This proposed divestiture is part of Dome Petroleum's program of selling non-strategic assets to reduce debt and to enable it to concentrate on development of its core businesses. The circumstances leading up to this program have been well publicized. Dominion Securities Ames Limited is acting as Dome Petroleum's agent in seeking potential buyers for Cyprus Anvil.

Because of the significant tax pools available in Cyprus Anvil, it is likely that a potential purchaser will want to acquire 100% of Cyprus Anvil, to permit amalgamation and earlier use of these pools. Dome Petroleum owns 87 1/2% of the common shares of Cyprus Anvil. It is anticipated that an arrangement can be made with the owner of the remaining 12 1/2%, TCPL Resources Ltd. ("TCPL"), to facilitate the tendering of 100% of Cyprus Anvil shares to an acceptable offer.

General

This brochure describes the Cyprus Anvil zinc-lead-silver mine-mill complex located at Faro in the Anvil district in the south central portion of Yukon Territory, Canada. Cyprus Anvil's mining and milling operational capacity places it among the world's largest producers of zinc and lead-silver concentrates. Current proven and probable reserves are sufficient for over 16 years open pit production at planned rates and several further years production from underground reserves. Possible reserves and district potential are anticipated to extend operations for many more years.

Faro, the second largest town in Yukon, was built by the company to accommodate mine employees and their families. The town is connected by an all-weather highway to Whitehorse, the capital of Yukon. Concentrates were carried by truck 250 miles to Whitehorse and from there by rail 103 miles to the port of Skagway, Alaska, for shipment to smelters. The company's markets have been world wide, with most of its product going to customers in Japan.

Cyprus Anvil also owns significant reserves in the Akie District in northern British Columbia. The major ore body is Cirque, which could be developed for the late 1980's.

Ownership History

Cyprus Anvil was established in British Columbia on April 21, 1975 as a public company through the merger of Anvil Mining Corporation ("Anvil") and Dynasty Exploration Ltd. ("Dynasty"). The registered office of Cyprus Anvil is located at 355 Burrard Street, Vancouver, British Columbia and its principal office is at 333 - 7th Avenue S.W., Calgary, Alberta.

Dynasty was formed on April 23, 1964, to explore for and develop mineral deposits in the Yukon Territory. On March 31, 1965, Dynasty entered into a joint venture agreement with Cyprus Mines Corporation ("Cyprus Mines") of Los Angeles, California, to explore Dynasty's mineral claims located in the Vangorda Creek area in central Yukon, 130 miles northeast of Whitehorse. This exploration program resulted in the discovery of a 58 million tonne zinc-lead-silver ore deposit on a group of claims known as the Faro property. On December 1, 1965, Anvil was formed as a British Columbia corporation, both to continue an accelerated exploration program on the joint venture properties and to place the Faro ore bodies into production if feasible. Anvil was owned 40% by Dynasty and 60% by Cyprus Mines. Anvil initiated a detailed development and exploration program for the Faro property in 1966. Construction of mining and milling facilities for the Faro orebody commenced in June 1967, and regular production began in early 1970.

On April 21, 1975, Anvil and Dynasty amalgamated to form Cyprus Anvil, in order to combine the operational capabilities and cash flow of Anvil with the exploration expertise of Dynasty. As a consequence of the amalgamation, Cyprus Mines became the owner of 63% of Cyprus Anvil.

Standard Oil of Indiana acquired Cyprus Mines (and hence 63% of Cyprus Anvil) in 1979, but due to FIRA difficulties decided to sell its Cyprus Anvil shares in 1981. Hudson's Bay Oil and Gas ("HBOG") acquired all the shares of Cyprus Anvil with this purchase and its follow up offer to minority shareholders. Following its takeover of HBOG, Dome Petroleum acquired 100% of Cyprus Anvil in early 1982. Subsequently 12 1/2% of Cyprus Anvil was sold to TCPL. Effective June 1, 1983, Cyprus Anvil ceased to be a reporting company for purposes of the Company Act of British Columbia and the Securities Act.

Operations

Proven open pit reserves at Faro are sufficient for 7 years production at currently planned mining rates. Mining probable and possible reserves in down dip extensions of the orebody, by open pit and/or underground means, may extend the life of the Faro mine by 1 to 2 years.

In 1979 Cyprus Anvil acquired extensive mineral properties in the Anvil District from Canadian Natural Resources Limited and Kerr Addison Mines Limited (1). Several lead-zinc deposits occur on the acquired properties, of which the Grum, Vangorda and Swim orebodies are the most economically important. As well, Cyprus Anvil owns the Dy deposit, which is located between the acquired lands. The open pit reserves of the Grum and Vangorda deposits are sufficient for over 9 years production at currently planned rates. These deposits, other than Vangorda, are "open", with excellent potential for significant additions to reserves.

- (1) These properties are subject to a 5% net profits interest after recovery of all operating and capital costs plus interest.

In June 1980, the company initiated a two-stage program, designated the Vangorda Plateau Development Program, to increase the mill capacity and to develop the open pit portions of the Grum and Vangorda deposits by the mid-1980's. The mill expansion stage of the program included a doubling of grinding capacity, to obtain satisfactory recoveries and concentrate grades from Grum and Vangorda ore, a doubling of flotation capacity and the implementation of process control. The second stage of the program, which was designed to enable mining of the Vangorda Plateau deposits synchronously with the Faro deposit, has been modified. The current plan calls for sequential open pit mining of the Faro, Grum and Vangorda deposits and possibly the Swim deposit. Once the open pit reserves are depleted, underground mining is planned for the remaining reserves at Faro and Grum, as well as the underground Dy orebody. Prior to underground mining, the district will be thoroughly explored for other potential open pit deposits.

Shut-down and Start-up

Following the deterioration of lead and zinc markets, mining and milling operations were suspended in June 1982. Since Cyprus Anvil operations have a substantial impact on the economy of the Yukon, discussions with the Federal and Yukon Governments to restart the company's operations began in July 1982, resulting in a \$25 million aid package to Cyprus Anvil being announced by the Federal Government on April 20, 1983. Overburden removal operations resumed on May 24, 1983.

As a result of rising zinc and lead prices, significant increases in productivity demonstrated in the overburden removal operations, expected improvements in mill operations, anticipated reductions in power costs and the probability of reduced inland transportation costs, Cyprus Anvil has initiated a program to resume commercial production by late 1984. A final start-up decision will be made after inland transportation costs have been determined.

CHALLENGES AND OPPORTUNITIES

The key statistics for Cyprus Anvil set out in the next section indicate that over the last few years of operations Cyprus Anvil became a relatively high cost producer of zinc and lead. A review of operations by current management indicated the following key problem areas:

- o poor labour productivity as a result of workforce attitude, the collective agreement and management operating practices
- o loss of flexibility in production planning and unnecessarily high waste stripping as a result of earlier stripping shortfalls
- o poor utilization of equipment due to planning and maintenance problems
- o high concentrate and supplies transportation charges
- o high electrical power costs, resulting from cost allocations and surcharges by the Northern Canada Power Commission ("NCPC") which Cyprus Anvil believes were unfair and discriminatory, and from lack of internal controls on power use
- o non-completion of the mill expansion, resulting in increased labour costs and poorer than planned metallurgy
- o escalating townsite costs due to an expanded workforce and increased benefits
- o a fiscal regime which does not recognize all mine operating expenses.

The one-year suspension of waste removal operations and the continuing mill shut-down, while unfortunate, have provided an opportunity to address these problems. The areas where progress has been made and opportunities for future improvement are outlined below and discussed more fully in subsequent sections of this brochure:

- o In the fall of 1982, Cyprus Anvil negotiated and signed a two-year labour agreement which increased potential mining productivity by 20%, reduced absenteeism, improved management rights and held wage increases to 0% in the first year and 5% in the second.
- o In April 1983, Cyprus Anvil and Dome Petroleum implemented an agreement with the Federal government (the "Action Plan") on a shared-cost stripping program which called for the removal of 6.6 million bank cubic metres ('BCM') of waste by December 31, 1984. Among other benefits, this will result in reduced future stripping ratios, increased operational flexibility, and the opportunity to implement the operational improvements of the new labour agreement and changed work practices.
- o Cyprus Anvil has undertaken a series of programs to assist in higher production and lower costs. These include a review of information systems, daily performance reviews, efficiency studies and workforce motivation through the use of industrial consultants; The Company Spirit.
- o During 1983, as a result of the mine closure, the Yukon Territorial Government ('YTG') commissioned an inquiry into Yukon transportation by the Canadian Transport Commission ('CTC'); the key issue being whether or not the South Klondike highway should be opened for truck traffic, with the consequent demise of the historic White Pass and Yukon ("WP&Y") railway. Studies and submissions by Cyprus Anvil demonstrate costs savings in the order of \$10-14 million per year over truck-rail costs if trucking were permitted on the South Klondike highway all the way to Skagway, Alaska, and savings of up to \$7 million per year if trucking were permitted to Haines, Alaska. The preliminary recommendations of the CTC were pro-railway but it has accepted further submissions prior to its final report. Cyprus Anvil made a submission to refute those preliminary findings and is continuing to press its case with the CTC, the YTG, the Federal government and the Yukon public. The company's position is endorsed by the local unions and the Yukon Federation of Labour made a supportive submission to the CTC.

- o During 1983, a hearing was held by the National Energy Board ('NEB') on the revenue requirements and charges of the NCPC. It is anticipated that regulation of NCPC will result in a more appropriate allocation of costs of service, and hence lower power costs for Cyprus Anvil.

- o On-going metallurgical studies indicate that design recoveries of zinc and lead from Faro ore are achievable and improved recovery of other metals is possible. Since August 1983, an engineering review of the mill has been in progress. This work suggests that an expenditure of \$8 million prior to start-up will result in a 15% increase in throughput capacity to 4.1 million tonnes per year with a labour force of 145 to 155: 45 fewer than at shut-down.

- o Reduced manpower levels will permit continued closure of the single persons complex, at a saving of approximately \$3 million per year.

- o Cyprus Anvil has initiated discussions with YTG and the Federal Government to correct anomalies and inconsistencies in the interpretation of various tax statutes.

KEY FINANCIAL AND OPERATING STATISTICS

	<u>1982*</u>	<u>1981</u>	<u>1980</u>	<u>1979</u>	<u>1978</u>	<u>1977</u>
Total Revenues (\$000s)	5,561	157,390	199,718	235,462	140,221	126,459
Net Income (Loss) (\$000s)	(46,923)	(10,634)	23,180	38,290	6,985	4,934
Per share (\$)	(6.04)	(1.38)	3.02	5.01	0.92	0.65
Shareholders' Equity (\$000s)	130,319	117,914	129,740	112,125	79,122	73,274
Per Share (\$)	16.77	15.18	16.89	14.67	10.42	9.62
Cubic Metres Moved (000s)						
Ore	396	663	680	680	797	750
Waste	3,250	8,020	6,505	5,529	7,336	5,777
Ore Milled (tonne 000s)	1,644	2,752	2,825	2,823	3,280	3,116
Average Grade Milled						
Lead %	2.80	2.90	3.12	3.26	3.17	2.74
Zinc %	4.70	4.80	4.68	5.28	5.14	4.88
Concentrate Produced (dry tonnes)						
Lead	58,900	111,628	116,490	117,491	134,328	100,390
Zinc	121,150	202,000	195,814	222,073	246,375	220,831
Bulk	-	-	13,548	28,631	32,931	36,855
Concentrate Grade						
Lead %	57.80	55.10	56.86	61.39	60.48	64.11
Zinc %	49.20	49.50	48.33	50.38	50.41	50.29
Payable Metal Sold						
Lead (Pounds 000s)	74,660	123,681	144,068	167,175	167,535	145,670
Zinc (Pounds 000s)	120,233	173,892	200,484	242,554	213,112	226,355
Silver (Ounces 000s)	865	1,688	2,092	1,601	1,745	1,254
Average Prices During Year (Canadian)						
Lead (per pound)	30.20¢	38.70¢	48.1¢	62.4¢	34.3¢	30.1¢
Zinc (per pound)	46.40¢	51.50¢	42.4¢	42.1¢	31.5¢	34.7¢
Silver (per ounce)	\$8.60	\$10.40	\$23.87	\$12.84	\$6.12	\$4.88

* Mining & milling operations were suspended on June 4, 1982.

CYPRUS ANVIL MINING CORPORATION

CONSOLIDATED BALANCE SHEET

December 31, 1983

\$(000's)

ASSETS

Current Assets

Cash and short-term deposits		550
Accounts receivable		8,996
Concentrate settlements receivable		-
Concentrate inventory		247
Supplies at cost		13,452
Prepaid expenses		306
		<u>23,551</u>

Mineral properties	51,825	
Accumulated amortization	<u>763</u>	51,062

Fixed Assets, at cost	196,361	
Accumulated depreciation	<u>52,087</u>	144,274

Deferred costs	91,743	
Accumulated amortization	<u>17,730</u>	74,013
		<u>292,900</u>

LIABILITIES

Current Liabilities

Bank advances		9
Accounts payable and accrued liabilities		6,082
Income taxes and Yukon royalty payable		6,630 (1)
Current portion of long-term debt		→ 130,240 (2)
		<u>142,961</u>

Long-term debt

Canada	5,642 (3)	
Dome Petroleum	-31,534	
Other	<u>4,127</u>	41,303

Deferred income taxes		2,287
Minority interest in subsidiary company		50
		<u>186,601</u>

SHAREHOLDERS' EQUITY

Capital stock		5,985
Contributed surplus		67,995
Retained earnings		32,319
		<u>106,299</u>
		<u>292,900</u>

- Notes:
- (1) This is the maximum amount payable on prior years' taxes and royalties in dispute. Cyprus Anvil has made submissions which, if accepted, would substantially reduce these amounts and possibly eliminate the liability.
 - (2) The bank loan bears interest at the bank prime rate plus 1/2 of 1%, payable monthly. Principal repayments under the agreement were scheduled at \$6.5 million quarterly, commencing March 31, 1983. The company was required to maintain specified financial ratios and its ability to dispose of or pledge assets was restricted. The bank loan is now in default because of overdue repayments and breach of technical covenants and is now payable on demand. Interest on the loan is being paid currently out of advances from Dome Petroleum. The lenders, Dome Petroleum, and the company are continuing negotiations for the purpose of an eventual restructuring of the debt. It is anticipated that agreement can be reached with the banks to re-term all or a part of the loan, subject to conditions to be negotiated, upon sale of Cyprus Anvil to a purchaser acceptable to the banks.
 - (3) The loan from the Federal Government is interest free and shall be repaid with 25% of the positive cash flow (as defined, including allowance for interest payments on bank debt, corporate taxes and royalties) generated from the operations at the Faro mine, prior to, or simultaneously with, repayment of bank indebtedness. Advances by Dome Petroleum under the Action Plan are repayable on the same conditions.

ORE RESERVES

Recently, proven and probable geologic reserves were estimated to be 106 million tonnes. Open pit mineable ore reserves were estimated to be 63 million tonnes and underground mineable reserves were estimated at over 20 million tonnes. A summary of geologic reserves is set out below, and details of mineable reserves by deposit are outlined in Appendix I.

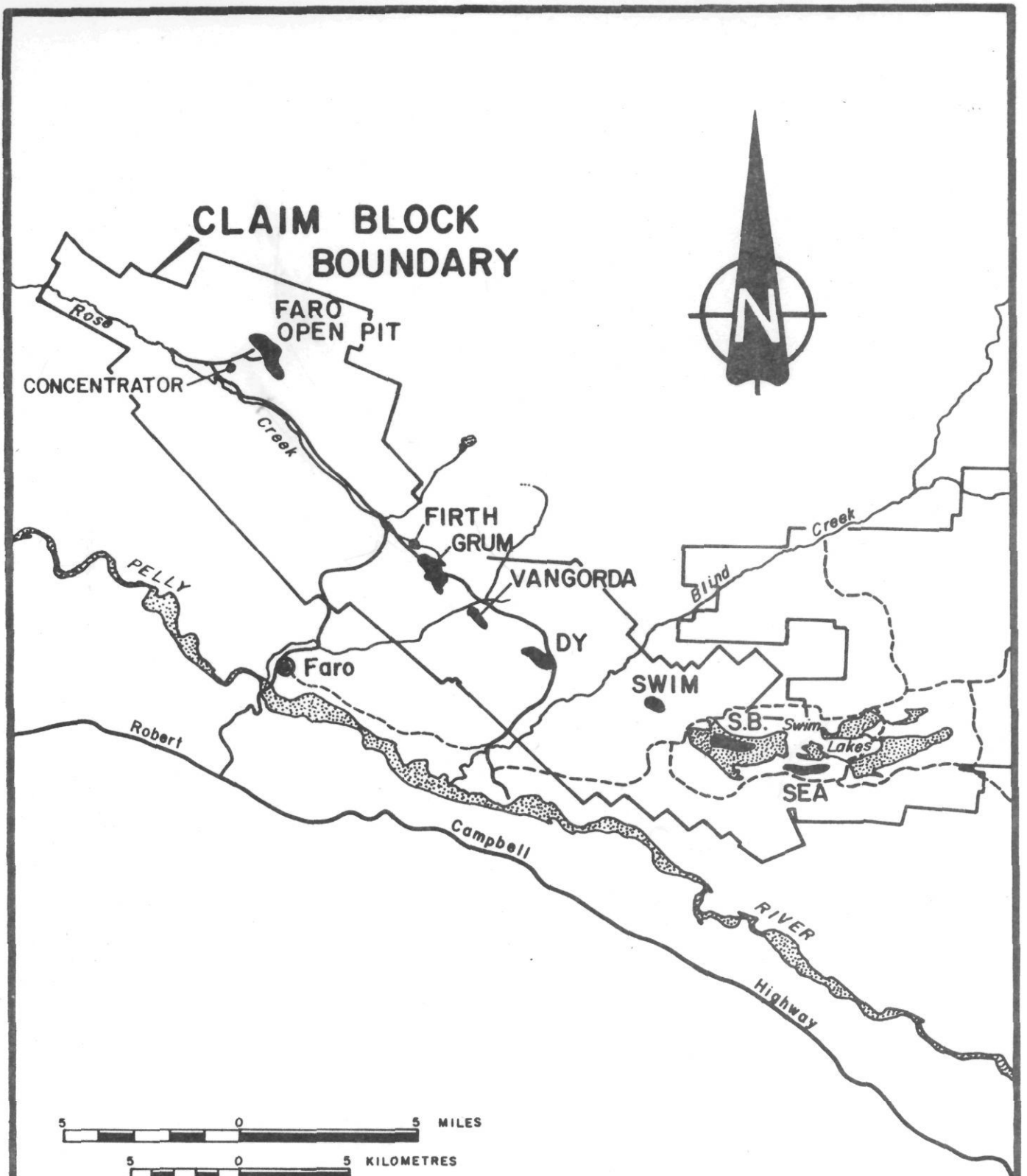
Drilling during 1983 added 203,000 tonnes grading 3.7% lead and 4.5% zinc to Faro open pit reserves and has partially delineated a down dip extension of the Pit 3 orebody. To date 1,950,000 tonnes of possible ore grading 5.2% lead and 7.3% zinc have been delineated in this area to the southwest of the pit and the feasibility of mining, by enlarging and deepening Pit 3 or by underground methods, is being examined. Mine staff anticipate that drilling during 1984 will add up to a further 2,000,000 tonnes to the southwest of Pit 3 and up to 2,000,000 tonnes to the northwest of Pit 1.

The Grum deposit is open in two directions, the Dy deposit is open in three directions and the Swim deposit requires a lot more work. Drilling programs presently planned for 1985 and thereafter are expected to increase both geologic and mineable reserves.

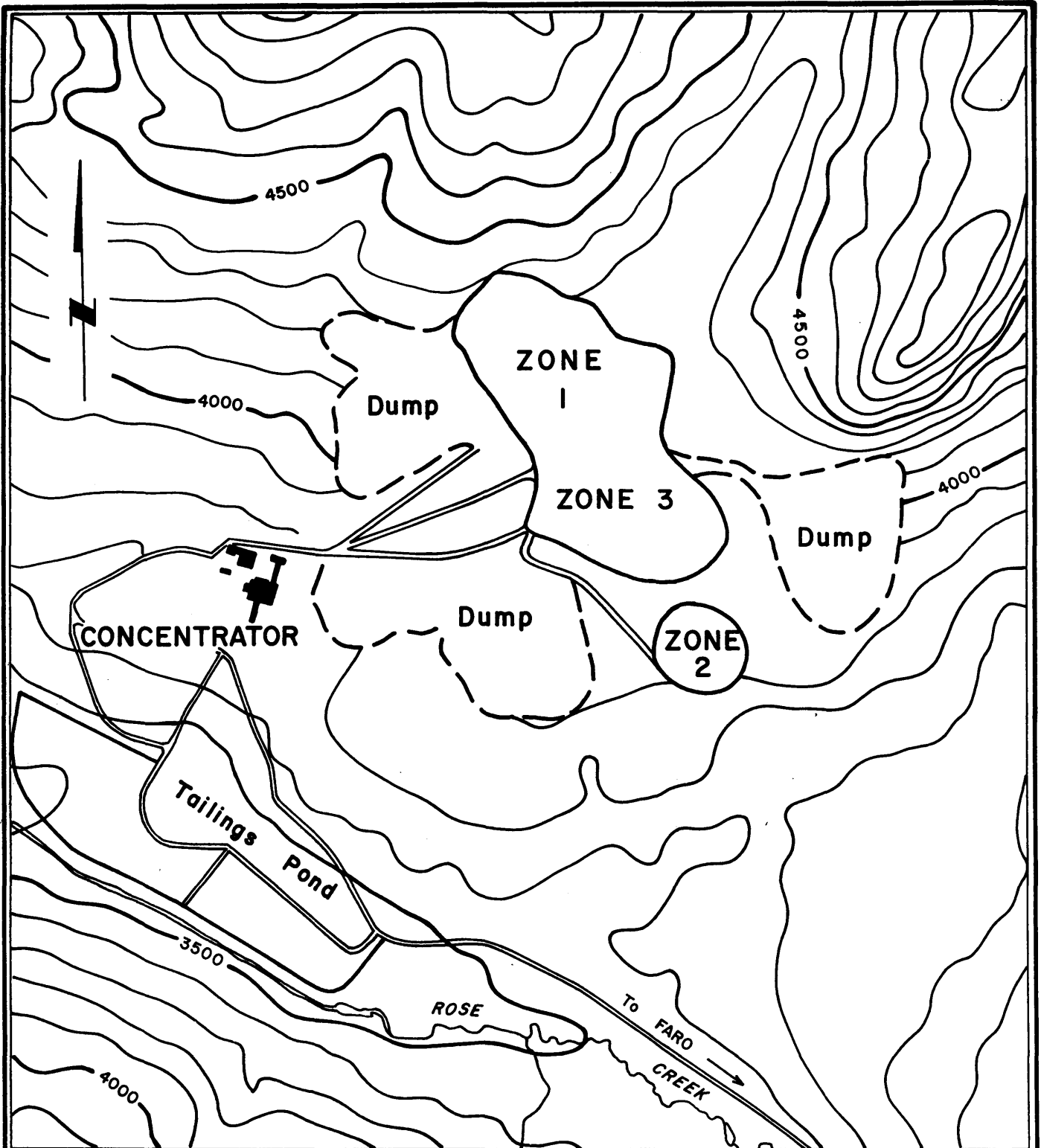
ANVIL DISTRICT GEOLOGICAL RESERVES AND GRADE

<u>Deposit</u>	<u>Tonnes (000,000)</u>	<u>Cut-off %</u>	<u>Lead %</u>	<u>Zinc %</u>	<u>Copper %</u>	<u>Silver gms/DMT</u>	<u>Gold gms/DMT</u>
FARO	35	4	3.1	4.7	.16	38	.18
GRUM	37	3	3.3	5.4	.15	54	.84
VANGORDA	9	3	3.1	3.9	.15	45	.78
DY	21	9	5.7	7.0	.12	82	.95
SWIM	4	6	3.8	4.7	*	42	*
TOTAL	<u>106</u>						

* - Grades exist but were not assayed at time of drilling.

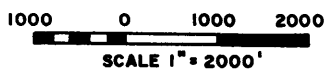


CYPRUS ANVIL MINING CORPORATION
ANVIL MINING DISTRICT



CYPRUS ANVIL MINING CORPORATION
 FARO DEPOSIT
 YUKON TERRITORY

FARO MINESITE



NTS 105 K-6
 SURVEY BY:
 DRAWN BY: C. L. C.

DATE: MARCH 10, 1980
 FIG. 2-3

DISTRICT POTENTIAL

The Anvil District deposits occur within the gradational contact zone between the Mt. Mye and overlying Vangorda formations along a gentle curvilinear NW-SE trend from Faro to Swim. Three other smaller lead-zinc occurrences (Firth, SB, Sea) are known in this zone and its trend to the southeast. The complex deformational history and widespread favorable stratigraphy suggest a high probability that several additional deposits will be discovered within the 25 mile zone between the current Faro open pit and the Sea deposit. The area has strong geological promise beyond the potential for additional reserves around the known deposits. Cyprus Anvil controls virtually all of the prospective property in the Anvil camp and maintains an extensive exploration data base at its exploration office in Vancouver and at the Faro mine.

The area has been geologically mapped at numerous scales and explored by geophysical and geochemical methods including airborne magnetics, ground magnetics, Turam, gravity and VLF-EM systems. Geochemical exploration consists of detailed soil sampling over all the deposits and up to 1 mile north and south of the line of the deposits. Drilling by rotary and diamond drill rigs was used to investigate many of the geophysical anomalies and to sample basal till and buried bedrock. Many of the recent diamond drill holes were drilled for structural and stratigraphic information so that the third dimension could be ascertained. For example, the DY deposit is too deep to respond to any geophysical or geochemical tool. It was found by projections of the favourable geological horizon after a thorough understanding of the structural geology in drill holes.

At present, three anomalies stand out as drilling targets:

- o a large gravity anomaly, about 8,000 feet in length. A drill hole on the periphery of this anomaly intersected an alteration pattern commonly associated with the Faro deposit
- o a large Turam anomaly located on the curvilinear trend between the Vangorda and Dy deposits. This target may be drilled in 1984.
- o a significant co-incident gravity - E.M. anomaly.

DEVELOPMENT PLAN - ANVIL DISTRICT

The current development plan for the Anvil district is predicated upon the sequential open pit mining of the Faro, Grum and Vangorda ore bodies. The Swim deposit may be mined following the Vangorda deposit. Eventually underground mining will take place at the Faro, Grum and Dy deposits. It is likely that underground mining will be deferred by additions to open pit reserves.

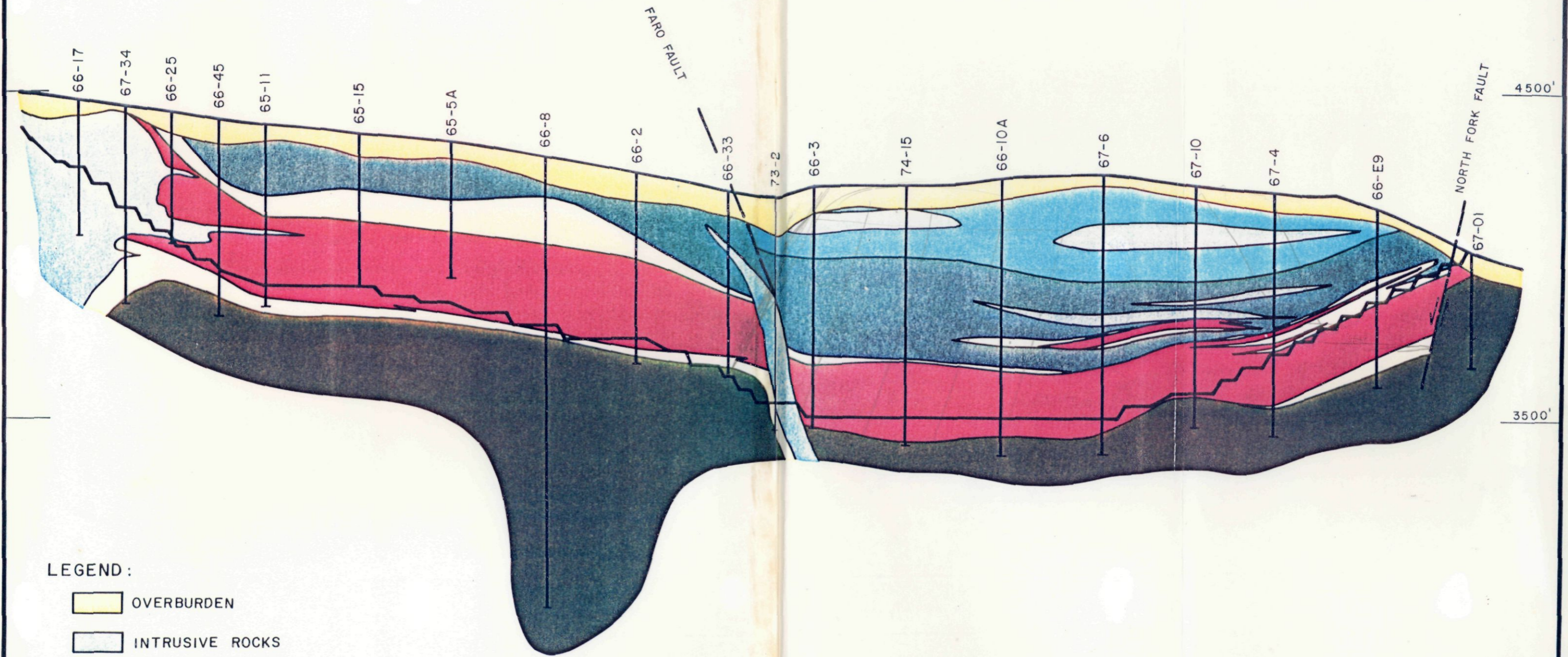
Faro reserves will be mined and milled at an annual rate of 4.1 million dry metric tons ("DMT") per year upon mill startup. The stripping ratio on remaining Faro proven reserves is 4.4 BCM of waste per BCM of ore or 3.4 tonnes of waste per tonne of ore. Mining of waste will be largely finished by mid 1988. Faro ore reserves will be exhausted by the end of 1991 based upon a late 1984 mill startup date. A longitudinal section through the original orebody is presented on the next page. The ore to the west of the Faro Fault (Pit or Zone 1) is largely mined out. The bulk of future ore and waste mining will be between the Faro Fault and the North Fork Fault (Pit or Zone 3).

In order to assure continuity of ore supply to the concentrator, development of the Vangorda Plateau infrastructure is scheduled to commence in 1989 with the design and equipment ordering for an overland conveyor. The conveyor will be in place to move Grum ore in 1992. The Grum deposit will be supplanted by Vangorda ore in 1999.

The foregoing development plan is based on current proven and probable reserve estimates. Development of additional reserves at Faro may permit deferral of Vangorda Plateau development by 1 to 2 years. This has a very beneficial impact on project cash flows through deferral of capital expenditures and reduction of average stripping ratios.

N.W.

S.E.



LEGEND :

- OVERBURDEN
- INTRUSIVE ROCKS
- VANGORDA FORMATION**
 - CALCAREOUS PHYLLITE ; CALC-SILICATES
 - GRAPHITIC PHYLLITE / SCHIST
 - SULPHIDE HORIZON(S)
 - ALTERATION OVERPRINT
- MT. MYE FORMATION**
 - NON-CALCAREOUS PHYLLITE / SCHIST

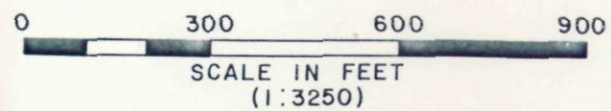


FIGURE 3-3
FARO DEPOSIT
LONGITUDINAL
SECTION 22

CURRENT MINE PLAN - FARO

Pre-Stripping Program

A \$50 million pre-stripping program at the Faro mine began in May 1983, pursuant to an agreement between Cyprus Anvil, Dome and the Federal Government. The Government is providing \$6 million in grants and \$19 million in limited recourse interest-free loans to match a \$25 million expenditure by Cyprus Anvil for mine-site costs related to the removal of over-burden during 1983 and 1984 as set out in the Action Plan. The loan portion is repayable from 25% of cash flow from the mine after allowances for operating costs, interest on bank indebtedness and taxes and royalties. Although the loan portion may be called if Dome disposes of its interest in Cyprus Anvil, it is anticipated that this very advantageous financing will remain in Cyprus Anvil.

The Action Plan was aimed at removing an "island" of waste between Zone I and III and budgeted for a stripping rate of 12,250 BCM per day. It was forecast that 2.2 million BCM of over-burden would be removed in 1983 and 4.4 million BCM in 1984, based on the use of six 170 ton Euclid trucks and 50% utilization of two shovels and two drills.

In 1983, stripping costs averaged \$3.80 per BCM or approximately 30% below budgeted amounts. As a result, production targets were increased in January to 15,675 BCM per day and it is expected that targets may be increased to 17,585 BCM per day in May. Stripping rates continue to be increased within the original expenditure budget and it is currently anticipated that a total of 5.3 million BCM will be removed by mid-1984; more than 20% above planned volumes. If a go-ahead is given by mid 1984 for mill start-up, stripping rates for the remainder of the year will be increased to 23,300 BCM per day; close to the normal operating level.

of "No-op" fill end 1984 → 15,675 BCM/day Jan - May → 2,335,575 BCM
 (149 WD)
 17,585 BCM/day June - Dec → 3,622,510 BCM
 (20% WD)
 5,958,085 BCM
 + 2,711,500 tons
 16,384,500 tons
 Waste removed

This pre-stripping program has significant benefits for Cyprus Anvil:

- o retention of key skilled tradesmen at Faro during the mill shut-down period
- o an opportunity to improve on past mining practices
- o increased flexibility in scheduling future ore and waste mining
- o reduction of the average stripping ratio for remaining production, with a consequent significant reduction in operating costs
- o reduction of the previously anticipated peak stripping rate of 30,580 BCM per day in 1985-87 to 24,400 BCM per day, with a very beneficial impact on peak manpower and equipment requirements. Smoothing out manpower requirements also has a beneficial impact on townsite costs
- o \$6 million in grants and \$19 million in interest-free limited-recourse financing
- o an opportunity to address cost savings in power, transportation and mill operations

Re-Opening of the Faro Mine

It is anticipated that the mill could start up in late 1984, with initial production from a current inventory of 1.3 million tonnes of oxide ore. Full scale ore mining and milling of run-of-mine ore would begin in early 1985.

The basic parameters of the mine plan are set out on the following page. All costs are in constant 1984 Canadian dollars.

FARO OPEN PIT

Production

YEAR	MINING RATE			PRODUCTION RATIO			CONCENTRATE PRODUCED		CONCENTRATE SHIPPED	
	WASTE M BCM	ORE M BCM	TOTAL M BCM	WASTE M DMT	ORE M DMT	RATIO	ZINC DMT	LEAD DMT	ZINC WMT	LEAD WMT
1984	7 050	108	7 158	19 441	411	47.30	29	14	31	15
1985	7 604	7.1 1 072	8 676	20 968	4 073	5.15	266	141	282	430 148
1986	7 608	7.1 1 072	8 680	20 979	4 073	5.15	293	154	311	473 162
1987	7 608	7.1 1 072	8 680	20 979	4 073	5.15	273	155	289	452 163
1988	3 836	3.6 1 075	4 911	10 578	4 085	2.59	302	177	320	546 186
1989	785	.73 1 072	1 857	2 165	4 073	0.53	307	177	326	512 186
1990	393	.37 1 072	1 465	1 084	4 073	0.27	303	162	321	491 170
1991	284	.26 1 072	1 356	783	4 073	0.19	269	133	285	427 139

96,977 28.9 3.36 2042 113 2165 1169
77530 6%omit.5% 3334

Metallurgy

YEAR	-----CONCENTRATES-----						-----BYPRODUCTS-----					
	---ZINC---			---LEAD---			---SILVER---			---GOLD---		
	GRADE	REC	CON	GRADE	REC	CON	GRADE	REC	CON	GRADE	REC	CON
1984	0.047	0.722	0.480	0.029	0.696	0.600	1.209	0.490	17.608	0.006	0.350	0.060
1985	0.041	0.820	0.510	0.027	0.800	0.616	1.289	0.580	21.642	0.006	0.350	0.059
1986	0.044	0.839	0.513	0.028	0.823	0.614	1.154	0.591	18.028	0.006	0.350	0.054
1987	0.040	0.860	0.514	0.028	0.836	0.616	1.190	0.615	19.242	0.006	0.350	0.053
1988	0.044	0.855	0.512	0.031	0.830	0.604	1.415	0.605	19.779	0.006	0.350	0.047
1989	0.045	0.858	0.512	0.032	0.832	0.613	1.132	0.609	15.875	0.006	0.350	0.047
1990	0.045	0.857	0.513	0.030	0.821	0.616	1.302	0.598	19.588	0.006	0.350	0.051
1991	0.039	0.857	0.511	0.024	0.810	0.599	1.064	0.587	19.177	0.006	0.350	0.062

1.214

Unit Costs (1)

YEAR	MINING		PROCESSING			G+A TOTAL \$M	TRANSPORTATION		
	WASTE \$/BCM	ORE \$/DMT	GEN \$/DMT	FUEL \$/MMBTU	ELEC \$/KWH		LAND \$/WMT	TERM \$M	OCEAN \$/US/WMT
1984	3.537	1.280	11.220		0.070	12 304	56.40	520	17.00
1985	3.537	1.280	6.945	4.500	0.070	12 685	56.40	3 120	17.00
1986	3.537	1.280	6.945	4.500	0.070	12 685	56.40	3 120	17.00
1987	3.537	1.280	6.945	4.500	0.070	12 685	56.40	3 120	17.00
1988	3.537	1.280	6.935	4.500	0.070	12 685	56.40	3 120	17.00
1989	3.537	1.280	6.945	4.500	0.070	12 685	56.40	3 120	17.00
1990	3.537	1.280	6.945	4.500	0.070	12 685	56.40	3 120	17.00
1991	3.537	1.280	6.945	4.500	0.070	12 685	56.40	3 120	17.00

22300
6.70/tonne

Operating Costs (\$000, 1984) (2)

YEAR	DIRECT OPERATING COSTS				-----OVERHEADS-----			TRANSPORTATION		TOTAL
	MINING	MILLING	OTHER	ELECTRIC	OFFICE	MINESITE	TOWNSITE	LAND	OCEAN	
1984	25463	6340	223	2540	1800	8397	2773	3076	951	51564
1985	32109	28286	2124	11795	1800	7592	3293	27343	9014	123357
1986	32123	28286	2307	11795	1800	7592	3293	29761	9914	126871
1987	32123	28286	2218	11795	1800	7592	3293	28584	9476	125168
1988	18797	28331	2450	11815	1800	7592	3293	31645	10615	116338
1989	7990	28286	2472	11795	1800	7592	3293	31949	10728	105906
1990	6603	28286	2387	11795	1800	7592	3293	30826	10310	102893
1991	6218	28286	2102	11795	1800	7592	3293	27057	8908	97052

*avg 2294/yr. 16283
5.3% avg.*

*210291 69916 849149
2168,000 GH/yr.
plan was 184,000 - reduced % adjust. to screen circuit*

Capital Costs (\$000, 1984) (3)

YEAR	DEVELOPMENT		-----MILL-----		TAILING DAM	-----ONGOING CAPITAL-----					TOTAL CAPITAL
	DRILL	STRIP	CRUSH	CONCEN		MINE	MILL	EMVRO	TOWN	MISC	
1984	530		7 000			250					7 780
1985				1 000		5 578	100	100	100	100	6 978
1986				1 000		5 290	300	200	100	100	6 990
1987				1 000		2 470	300	200	100	100	4 170
1988				500		1 000	300	200	100	100	2 200
1989				500	1 500	1 000	300	200	100	100	3 700
1990				500		1 000	300	200	100	100	2 200
1991				500		1 000	300	200	100	100	2 200

Notes: (1) Land transportation costs included herein assume concentrates are trucked to tidewater at Haines, Alaska. If trucking to Skagway, Alaska is permitted, land transportation costs would be approximately 25% lower; if the historical truck-rail transportation system must be used, land transportation costs would be up to 15% higher. See 'Land Transportation'.

(2) a break-down of Faro capital costs is attached as Appendix VI.

EXPECTED OPERATIONAL IMPROVEMENTS

Cyprus Anvil views the foregoing parameters, as appropriate for planning purposes, but sees significant upside potential in a number of areas:

(i) Additional Faro Reserves

The mining plan does not incorporate any contribution from the down dip extension of the Pit 3 orebody discussed under 'RESERVES', as only widely spaced drilling has been carried out to date and no detailed examination of the feasibility of mining in this area by open pit and/or underground methods has been undertaken.

(ii) Metallurgy

The historical metallurgical results and predicted mill performance for the current plan are summarized in Appendix II. Compared to past statistics, the predicted mill performance is considerably improved; however it is believed that the predicted mill performance may still be conservative in view of the following:

- o Results from the start of operations to November of 1981 were obtained using coarse grinding.
- o Studies conducted by Cyprus Anvil, Kamloops Research and Assay laboratory, Sachtleben and the Mitsui Mining & Smelting company determined that improved mineral liberation and better metallurgical performance would be achieved through finer grinding of Faro ore. In the 1980 engineering study which led to the decision to modify the mill, the predicted improvements in the recovery for lead and zinc were 5.5 and 4.0 percentage points higher than those used in this plan and the lead and zinc concentrate grades were 6.3 and 2.4 percentage points higher.

- o In 1980 and 1981, Cyprus Anvil spent in excess of \$40 million on additional grinding circuits, larger flotation cells, larger filters and a new instrumentation system. The mill operated for 7 months after these modifications, but was not fully tuned up and the instrumentation system was not completed. As a result, metallurgical performance has not yet achieved predicted levels because the fine grind has not been achieved in operations and because poor-response oxide ore has been the main feed to the mill since the modifications.

- o Tests on grinding and metallurgy by Cyprus Anvil staff have been ongoing since shutdown. Results show that the fine grind will be achieved and the originally projected mill performance is realistic. At current metal prices, transportation and smelter charges, a 2% increase in lead, zinc and silver recovery and a 2% increase in concentrate grades above the levels assumed in the plan increases net smelter returns at the minesite by approximately \$11-12 million per year.

(iii) Mining Costs

Overburden and ore mining costs for the last ten years of production, and comparable overburden mining costs by month since the resumption of mining operations in June 1983 are set out in the table below:

The marked reduction in mining costs in 1983 over previous years is a result of three principal factors:

- o A new labour agreement was concluded in December 1982 with significant improvements to work rules and management rights. The switch from an 8 hour to a 12 hour shift, combined with a "hot start" (trucks not returning to the yard at the end of a shift) results in an increase in pit equipment utilization of 20%. A change in the method of calculation of hours eligible for over-time pay has resulted in a dramatic decrease in absenteeism and over-time pay expenditures. Elimination of automatic leave of absence days has also helped reduce the institutional absenteeism.
- o An improvement in work attitude on the part of both management and labour has been achieved as a result of the current economic environment and improved management-labour communications.
- o The 8 recently-acquired 170 ton Euclid trucks have a larger payload, faster cycle time and fewer mechanical problems than the 120 ton Wabco trucks they have replaced.
- o Better utilization of labour and equipment as a result of more flexible planning in the absence of ore production pressures. The advance stripping now being done will permit continued flexibility.

It is anticipated that economies of scale as production levels increase, upgrading of equipment and the operational learning curve will offset the additional costs of deeper pit operations. Based on results to date, the \$3.53 per BCM mining cost assumed in the plan should be easily achievable, and \$3.04 per BCM (\$1.00 per ton) is a realistic longer term operational target.

FARO MINING COSTS

	<u>Drill/ Blast (2)</u> \$000	<u>Load/ Transport</u> \$000	<u>Mechanical</u> \$000	<u>Total</u> \$000	<u>Volume Moved</u> 000 BCM	<u>Costs</u> \$/BCM \$/Ton		<i>\$/ton</i>
1983 (1)								
June	194	363	584	1,141	295	3.87	1.72	1.52
July	182	467	525	1,174	391	3.00	0.99	1.02
August	290	427	667	1,384	312	4.44	1.46	1.37
September	182	438	557	1,177	359	3.28	1.08	1.31
October	340	481	562	1,383	430	3.22	1.06	1.28
November (3)	312	472	858	1,142	268	4.26	2.01	1.70
December	139	414	646	1,199	410	2.92	0.96	1.16
TOTAL	1,639	3,062	4,399	9,100	2,392	3.80	1.25	1.52
1984								
January	327	485	594	1,406	463	3.04	1.00	
February	380	493	736	1,609	429	3.75	1.23	
Prior to Shutdown				12115	3287	3.09/BCM		
1982 (4)	2,758	5,800	9,578	18,136	3,649	4.97	1.64	
1981	3,774	12,674	23,518	39,966	8,683	4.60	1.51	
1980	3,920	8,464	17,577	29,961	7,186	4.17	1.37	
1979	2,988	6,559	11,080	20,627	6,209	3.32	1.09	
1978	3,632	8,870	7,127	19,629	8,015	2.45	0.81	
1977	2,631	6,392	5,630	14,653	6,498	2.26	0.74	
1976	1,651	3,146	3,500	8,297	2,823	2.94	0.96	
1975	2,335	4,695	4,526	11,556	4,340	2.66	0.88	
1974	1,837	3,318	3,270	8,425	4,936	1.71	0.56	
1973	1,078	2,328	2,432	5,838	4,258	1.37	0.45	
1972	929	2,033	2,586	5,548	3,951	1.40	0.46	

Notes:

- (1) Start-up costs and major overhauls have been expensed rather than capitalized.
- (2) Large drill and blast expenditures in October, November and January resulted in significant increased in broken material inventories. "Normalized" total costs in these months would be lower.
- (3) Production levels and unit costs since November have been adversely affected by maintenance problems with the shovels.
- (4) 1982 costs are for 5 months of production prior to June 4 shutdown.

(iv) Milling Costs

Operating cost estimates in the plan assume completion of an \$8 million maintenance and upgrading program prior to start-up as set out below. This program to complete the mill expansion was developed by Cyprus Anvil staff and an outside consultant:

- o Undercapacity in the water system has resulted in inadequate water supply to the grinding circuit and inappropriate use of reclaimed water for flotation and elsewhere in the mill. Water system upgrading is expected to increase grinding capacity, improve recoveries and reduce maintenance costs.
- o Installation of a rock breaker for the crusher and/or modification of crusher discharge is expected to eliminate production losses due to plugging by frozen material and possibly result in achieving the required throughput from one 12-hour shift per day.
- o Modifications to feeders and vibrating screens are expected to reduce the amount of fines in the crushing circuits and coarse ore in the grinding circuits; increasing capacity and reducing power consumption.
- o Modifications to conveyors will reduce spillage, reducing labour costs and increasing capacity.
- o Modifications to the dewatering system are expected to reduce concentrate moisture content and reduce labour and maintenance costs.
- o Better ore control on mill feed and batching of ore types will facilitate reagent balances and improve recoveries.
- o Catch-up maintenance in a number of areas and modifications to the electrical system will reduce operating costs.

This program will complete the expansion and result in a mill capacity of 4.1 million tonnes per year; an increase from 2.7 million tonnes per year prior to the modifications and from the 3.6 million tonne per year annualized level achieved in 1982. In addition there will be a decrease in labour requirements of approximately 45 people.

(v) Power Costs

Cyprus Anvil's average cost for electricity supplied by NCPC over the last five full years of production was as follows:

	<u>Consumption</u> (000's kwh)	<u>Average Price</u> (cents per kwh)	<u>Cost</u> (\$ millions)
1977	98.2	3.4	3.3
1978	100.1	3.8	3.8
1979	96.1	3.7	3.9
1980	101.0	4.2	4.3
1981	125.2	6.9	8.7

Prior to shutdown, Cyprus Anvil's rates were forecast to increase to 10¢ per kwh in the 1982-83 billing year. The increases have been due to NCPC passing on cost increases in the Whitehorse/Faro system disproportionately to Cyprus Anvil, resulting in Cyprus Anvil paying significantly more than its cost of service.

A National Energy Board ("NEB") report on the NCPC was released on October 28, 1983, following a series of public hearings in the Yukon and Northwest Territories last June and July.

The report recommended, among other things:

- o NCPC rates be based on the true costs of providing electricity to the customers in the north, with separate rate zones for areas supplied from hydro or diesel generation

- o some debt of NCPC (payable to the Federal Government) should be converted to equity
- o the proportion of debt that exists because of prior losses, and outstanding loans incurred in respect of assets no longer useful, should be forgiven

On February 20, 1984 Federal Indian and Northern Affairs Minister John Munro announced a proposed re-organization of NCPC including:

- o regulation of NCPC by a panel of the NEB.
- o "acknowledgement that ... the NCPC's rate structure must reflect the true cost of delivering power to all users ... determined through a rational and objective process".
- o public hearings by the NEB panel in the north, followed by implementation of a new rate structure on a test basis by April 1985.

A rate hearing is anticipated in the late summer or fall of 1984, and Cyprus Anvil will be an active intervenor.

The introduction of a fourth hydro turbine at Whitehorse and the closure of Whitehorse Copper Mines is expected to reduce the proportion of diesel-generated electricity in the Whitehorse/Faro system and reduce average costs.

NCPC has previously indicated that if it supplied Cyprus Anvil on a cost of service basis, rates would be 7.5¢ per kwh in the 1985-86 billing year. In the Faro Mine plan, 7.0¢ per kwh has been used for 1984, with increases equal to general inflation thereafter.

(vi) Coal

In the past, Cyprus Anvil produced 20,000 to 25,000 tonnes per year of relatively poor quality 8,000-10,000 BTU thermal coal from reserves near Carmacks, for plant heating and concentrate drying. This coal was relatively expensive per BTU to mine and deliver. It also caused operational and maintenance problems in the mill. To reduce costs, Cyprus Anvil is examining the following alternatives:

- o purchasing better quality B.C. coal, delivered to Skagway and shipped to Faro on a back-haul basis.
- o replacing existing coal-fired concentrate dryers with pressure filters, to reduce fuel and labour costs.
- o adapting the dryers to burn diesel fuel.

Costs in the mine plan are based on the first alternative.

(vii) Land Transportation

From the start of production in 1970, Cyprus Anvil lead and zinc concentrates were trucked in containers 250 miles from Faro to Whitehorse and then transferred to the WP&Y railway for transport 103 miles to tidewater at Skagway, Alaska. Prior to shutdown, Cyprus Anvil was paying approximately twice the unit costs of other Canadian metal mines, or an average of 16.5¢ per tonne - mile (25.4¢ and 12.9¢ per tonne mile on the railway and road portions respectively) to transport concentrates to the coast, as well as full rates on backhaul materials. This was as a result of Cyprus Anvil being required to re-negotiate its long term contract to bring rail rates up to a break-even or compensatory level. Because of deteriorating traffic levels, inefficiency, extra handling,

57.90/t
to Skagway.

353 mi

union problems and Alaska state laws, compensatory rates via the truck-rail mode are significantly higher than could be achieved if concentrates and supplies were trucked, in a competitive environment, from Faro to Skagway via the South Klondike highway. The Federal and Yukon governments have felt that the continuation of the WP&Y railway is in the interest of the Yukon and the railway cannot operate without Cyprus Anvil's business or its replacement by an equally large mine. The WP&Y railway suspended operations shortly after the shut-down at Faro in 1982.

During 1983, as a result of the closure of the mine, YTG commissioned an inquiry by the CTC into Yukon transportation. The key issue was whether or not the South Klondike highway should be opened for truck traffic, with a consequent demise of the railway. Cyprus Anvil made two detailed submissions to the CTC inquiry with the assistance of Trimac Transportation System and other consultants. Its views are as follows:

- o There is no physical restriction to trucking concentrates from Faro to Skagway via the South Klondike highway. While the authorities do not presently allow the 134,500 pound gross vehicle weights required for the 'B-train' trucking operations, approval appears to be a political question rather than one of technical or financial concerns.
- o Opening the road to heavy trucks may present short term problems, but these are not insurmountable.
- o Yukon would gain more benefits from road opening than from continued support of the railway.
- o Cyprus Anvil could achieve transportation cost savings over the truck-rail mode of \$10-14 million, and possibly up to \$17 million per year.

- o Concentrate trucking costs to Skagway would be in the order of 12¢ per tonne-mile and there would be savings on back-haul of supplies of approximately \$3.2 million per year over the tariffs charged by WPY.

In its preliminary report, CTC disagreed with Cyprus Anvil's view, concluding that road savings were over-stated and would be offset by public expenditures on road upgrading and maintenance, and that opening the road would have a negative impact on public safety, tourism and future development in the Yukon. The CTC requested responses to its preliminary report and Cyprus Anvil issued a response on February 15, 1984. The final report is due before June, 1984.

In the opinion of Cyprus Anvil, the CTC analysis and preliminary conclusions are seriously flawed. It is actively pressing its case with all levels of government, the unions and the Yukon public. The Minister of Indian and Northern Affairs, John Munro, has indicated publicly that Ottawa could help if a potential Cyprus Anvil buyer made the purchase conditional on solving the transport problem. Opening the road would also require the approval of Alaska. Although there is opposition in Alaska, Cyprus Anvil feels there is a reasonable chance that Alaska will permit trucking to Skagway if it is first approved in Canada.

If the South Klondike highway is not opened, Cyprus Anvil intends to pursue the alternative of trucking to tidewater at Haines, Alaska. This route would also require approval of both governments, but the 'roadblocks' are seen as less difficult as this route is currently open all year and heavy trucks are permitted on most sections of the road. A full discussion of these issues is set out in the CTC preliminary report and Cyprus Anvil's two submissions.

- o Costs per tonne-mile to Haines would be similar to those from Faro to Skagway at about 12¢ per tonne-mile, but as the route to Haines is 470 miles versus 353 to Skagway, the savings over the truck-rail route would be significantly less. The cost of the Haines alternative has been included in the foregoing production costs. The estimated costs for the three alternatives are indicated below:

	<u>\$/Tonne (1)</u>
Existing Truck-Rail System (2)	57.00 - 65.00
Trucking to Skagway (3)	42.36
Trucking to Haines (3)	56.40

Notes:

- (1) per wet tonne: concentrate moisture content is 5-6%
- (2) CTC estimate
- (3) based on Trimac report to Cyprus Anvil

viii) Administration and Overhead

Costs have been cut by reductions in Vancouver staff from 54 in March 1982 to 8 at present. This has in part been achieved by integration of head office functions into Dome. Administrative personnel in Faro have been reduced from 129 in March 1982 to 53, and will return to approximately 70 when the Faro operations are in full production.

Townsite costs in Faro will be reduced by approximately \$3 million per year as a result of reduced manpower and by conversion of a bunkhouse/catering facility to apartments. The conversion may be financed by the sale of some housing units to YTG.

A preliminary materials management review by a Dome Petroleum specialist has identified potential for a \$1 - 2 million per year reduction in inventory carrying costs.

Cyprus Anvil plans to amalgamate the mine into the Faro tax base in order to end paying both territorial and municipal taxes. The saving could be up to \$750,000 per year.

(ix) Yukon Royalty

The Yukon Quartz Mining Act has not been revised for many years and is subject to differing interpretations in several areas. It is out of step with similar legislation in other Canadian jurisdictions in that it makes no allowance for the cost of processing assets and has no ceiling on its sliding scale royalties.

Cyprus Anvil is attempting to clarify the deductions available to it under the existing act and has initiated discussions with the Department of Indian and Northern Affairs regarding changes to the act. The Department has agreed that a processing allowance must be incorporated into the royalty regime and is currently examining other issues which Cyprus Anvil has identified. If the Yukon Act were modified to match the Territories Act, there would be a significant reduction in future royalties payable.

VANGORDA PLATEAU DEVELOPMENT PROGRAM

The basic parameters of the development plan for the Vangorda Plateau deposits are outlined below. This plan is a substantial departure from the original Vangorda Plateau Development Program which envisaged the sequential development of the Vangorda and Grum open pit reserves and the concurrent mining of these reserves with mill feed from the Faro pit. Cyprus Anvil has re-evaluated this plan in view of lower silver prices and a number of different operating assumptions and has concluded that returns are improved by deferring the development expenditures for the Plateau deposits until toward the end of the Faro reserves. The revised mining plan has not been completed in detail. Operating parameters are presented on an 'average year' basis. Cost estimates reflect anticipated unit costs at Faro, as outlined earlier.

VANGORDA AND GRUM DEPOSITS - OPERATING PLAN

		<u>Annual Estimates</u>	
		<u>Grum</u>	<u>Vangorda</u>
		<u>1992-1998</u>	<u>1999-2000</u>
Cubic Metres Moved (000)	- Waste	9,400	3,800
	- Ore	1,170	1,142
Ore Milled (000 tonnes)		4,000	4,000
Feed Grade - Lead (%)		3.0	2.95
	- Zinc (%)	4.9	3.7
	- Silver (gms/DMT)	50.0	43.0
	- Gold (gms/DMT)	.7	.75
Recoveries - Lead (%)		80.0	78.2
	- Zinc (%)	83.0	82.7
	- Silver (%)	65.0	61.9
	- Gold (%)	35.0	38.9
Concentrate Produced (DMT)	- Lead	160	154
	- Zinc	296	241
Concentrate Grades - Lead	- Lead (%)	60.0	60.0
	- Silver (oz/DMT)	26.1	22.2
	- Gold (oz/DMT)	.20	0.24
	- Zinc	55.0	50.7
	- Zinc (%)		
Operating Costs (per unit)			
	- Mining (\$/cubic metre)	3.54	3.54
	- Conveyor (\$/DMT)	0.75	0.75
	- Milling (\$/DMT)	6.95	6.95
Operating Costs (\$000)			
	- Mining	37,418	17,495
	- Conveyor	3,000	3,000
	- Milling	27,800	27,800
	- Power	11,803	11,803
	- Drying	2,169	1,877
	- Transportation	27,184	23,518
	- Terminal	3,120	3,120
	- General and Admin.	10,855	10,855
	- TOTAL	<u>123,349</u>	<u>99,468</u>

VANGORDA PLATEAU CAPITAL COSTS

(\$000; 1984)

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993-1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>
<u>Plateau Development</u>								
Shops, Road Service	3,000	4,000	2,000	-	-	-	-	-
Power Supply	750	25	-	-	-	-	-	-
Conveyor System	5,000	20,000	25,800	-	-	-	-	-
Crusher Station	-	-	2,000	-	-	-	-	-
<u>Grum Mine</u>								
Overburden Removal	-	16,500	16,500	-	-	-	-	-
Mine Capital								
o Shovel Rebuilds	1,500	1,500	1,500	-	-	-	-	-
o Drill Rebuilds	1,000	1,000	-	-	-	-	-	-
o New Trucks	-	-	11,250	-	-	-	-	-
o Rebuilt Trucks	2,250	3,000	3,000	-	-	-	-	-
o Loader	-	-	1,500	-	-	-	-	-
o Dozers	540	540	1,080	-	-	-	-	-
o Graders	-	430	430	-	-	-	-	-
o Miscellaneous	793	970	2,814	3,000	3,000	3,000	-	-
<u>Vangorda Mine</u>								
Overburden Removal	-	-	-	-	-	7,000	-	-
Mine equipment	-	-	-	-	-	-	3,000	3,000
<u>Other Capital</u>								
Mill	-	-	1,000	500	500	500	500	500
Environment	-	-	-	600	600	600	600	600
Townsite	-	2,000	2,000	100	100	100	100	100
Total	<u>14,833</u>	<u>50,240</u>	<u>70,874</u>	<u>4,200</u>	<u>4,200</u>	<u>11,200</u>	<u>4,200</u>	<u>4,200</u>

Note: Does not include development drilling on Grum and Vangorda of about \$2.2 million

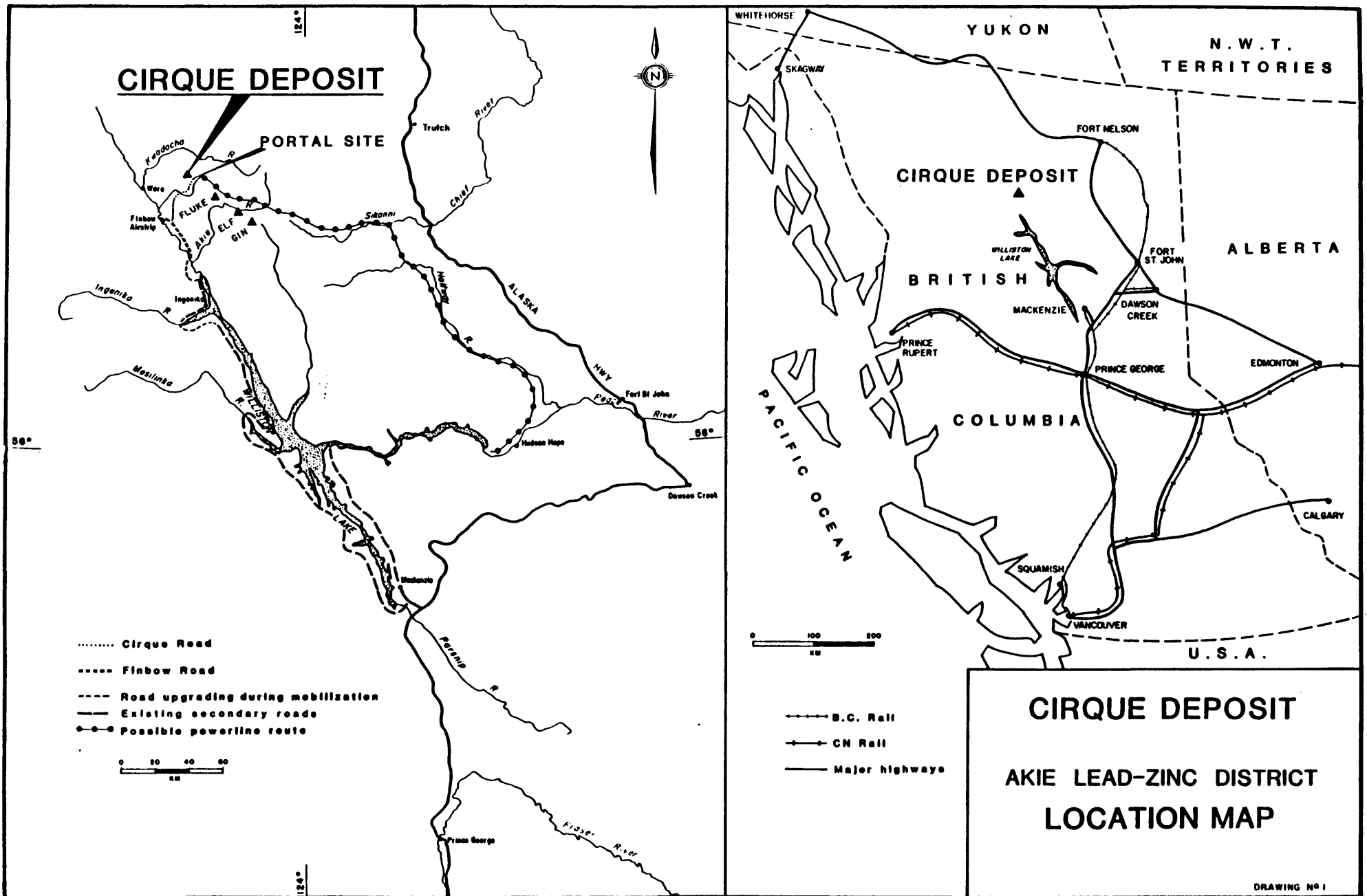
CIRQUE DEPOSIT

A major zinc-lead-silver district has been identified in the Akie district, some 140 miles north of Mackenzie in northeastern British Columbia. The major deposit is Cirque which contains about 35 million tonnes grading 8% zinc and 2% lead, with 47 grams per tonne silver and still remains open to the south. Smaller tonnages of higher grades can be calculated.

Additional reserves have been outlined on the Cirque property. The South Cirque Deposit, discovered in 1982, has been intersected by seven drill holes and has an estimated resource and target zone potential of 20 million tonnes. Another year of surface diamond drilling is required to define the reserve potential and distribution of grade within the South Cirque Deposit, from which an optimum schedule for underground development of the property can be determined. Both the Elf and Fluke properties contain mineralization with excellent potential for substantial reserves in a similar geologic setting to the Cirque Deposits.

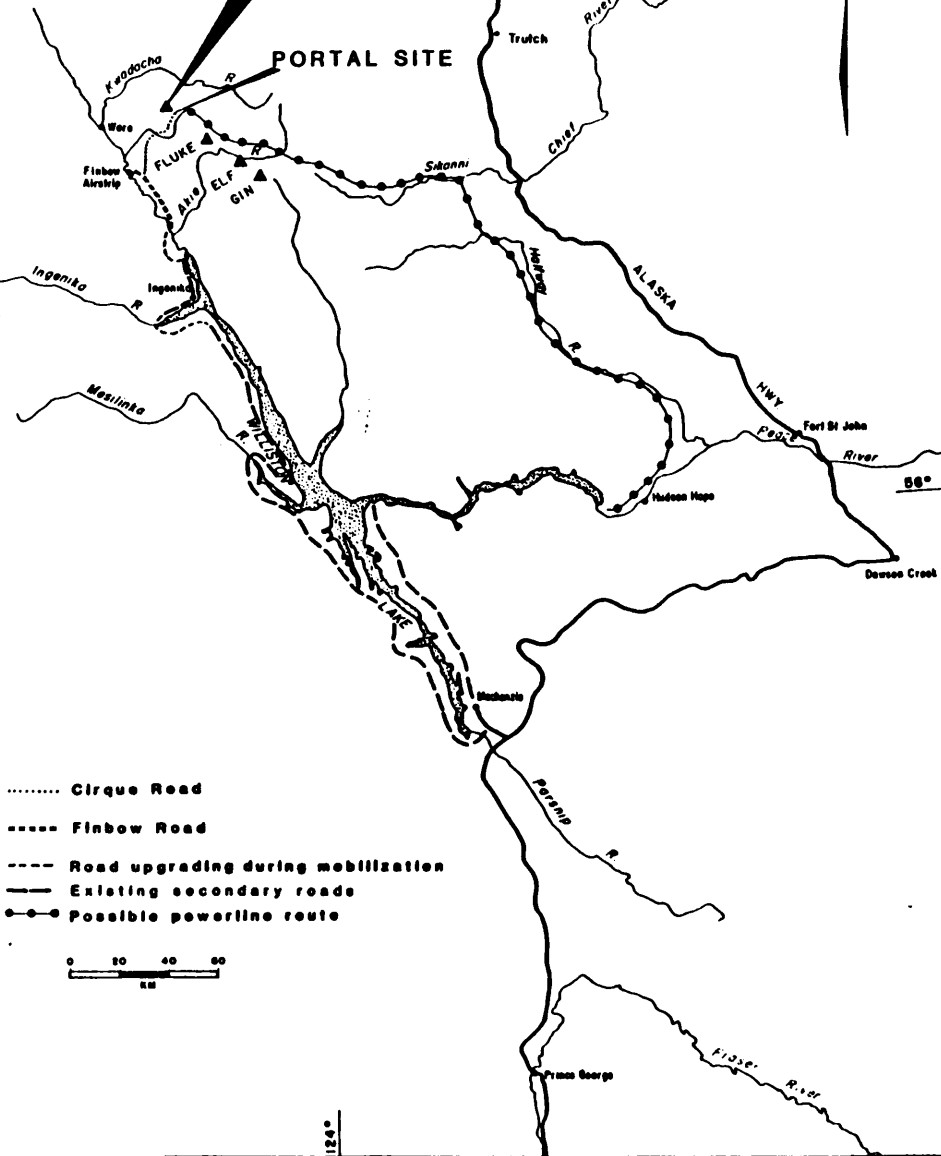
Total expenditures in the Akie District are approximately \$21 million, of which \$17 million has been capitalized on the Cirque property. Work includes 62,000 meters of diamond drilling, completion of a 1,600 meter airstrip, construction of 54 miles of all-weather road and purchase of capital equipment to support an underground exploration program. Preliminary metallurgical testwork on the Cirque Deposit mineralization has produced good quality zinc and lead concentrates. Further testwork is required to optimize the zinc and lead circuits and examine methods of extracting silver from pyrite concentrates.

A high probability exists that this area will develop into a major zinc-lead-silver mining district. Of the individual zinc-lead ore bodies in western Canada, the Cirque deposit is second only to Sullivan and Faro in size and metal content, based on current indicated reserves. The Akie project began as a 50/50 joint venture of Cyprus Anvil and Hudson's Bay Oil and Gas and is now 87 1/2% owned by Dome Petroleum through these companies and 12 1/2% owned by TCPL. It is Dome Petroleum's present intent to retain these properties until their value can be established by further exploration and engineering studies. Further information on Cirque will be made available on request.

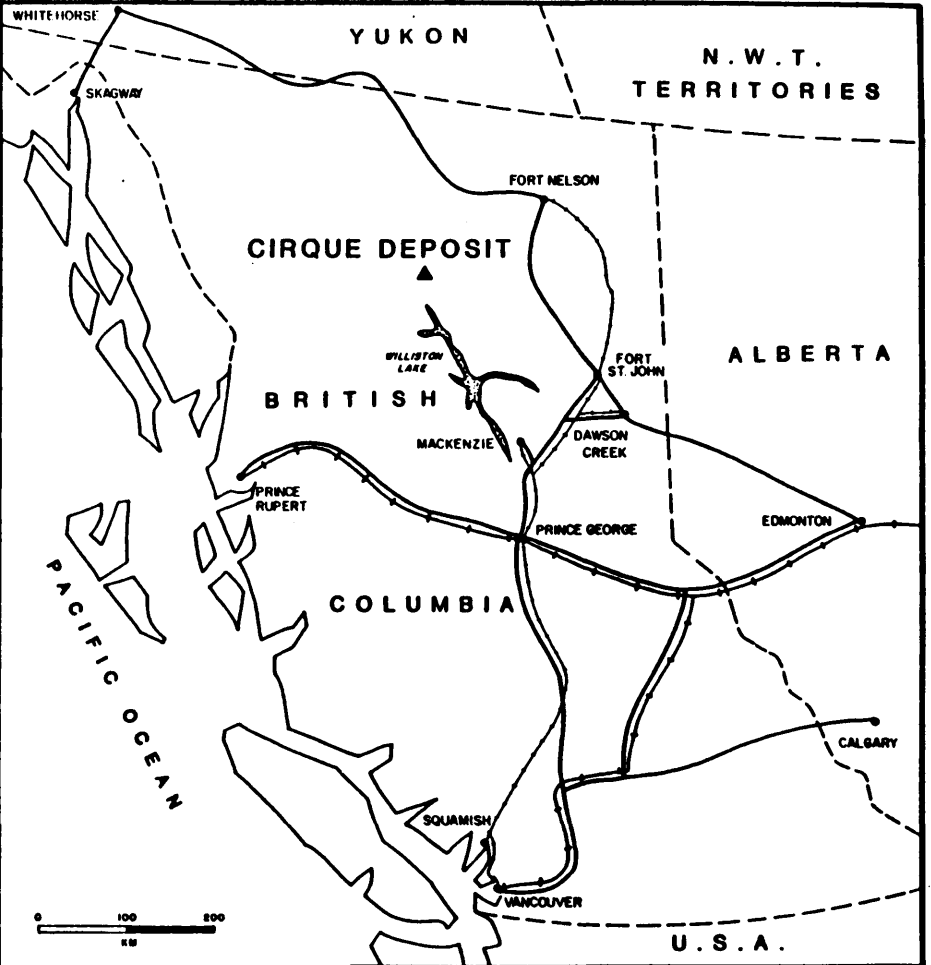
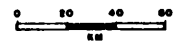


CIRQUE DEPOSIT

PORTAL SITE



- Cirque Road
- Finbow Road
- Road upgrading during mobilization
- Existing secondary road
- Possible powerline route



- B.C. Rail
- CN Rail
- Major highways

CIRQUE DEPOSIT

AKIE LEAD-ZINC DISTRICT
LOCATION MAP

MARKETING CYPRUS ANVIL CONCENTRATES

Markets

During the 1970's, Cyprus Anvil concentrates were distributed to Japan, Europe, Russia, North America, Australia and South Africa with approximately 90% going to Japan. Long term Japanese contracts were the basis on which the mine received the initial project financing. The problems of dependence on one geographical market area were never adequately addressed due to the long term relationships and ocean freight savings. The existing situation provides an opportunity to develop a more diversified market.

It will be possible to obtain signed contracts for delivery of Cyprus Anvil production when a mill production commitment can be made and the smelters can be assured of a continuous source of feed. The most logical markets for Cyprus Anvil to pursue are Japan, South Korea, China, Europe and North America. Continuing discussions are being held with past customers in Japan (Toho Zinc and Mitsui Mining and Smelting) which indicate that significant quantities of zinc and lead concentrates could be sold in 1985. It is expected that other Japanese and South Korean smelters would purchase concentrates starting in 1985.

European smelters import substantial quantities of zinc and lead concentrates, but these potential purchasers have not yet been formally contacted about their 1985 requirements. Cyprus Anvil in the past has had a long term relationship through Metallgesellschaft and will include this market in developing a marketing strategy.

Bunker Hill, located at Kellogg, Idaho, is currently negotiating for zinc and lead concentrate supplies in the medium term to allow this presently idle plant to start up. The Bunker Hill annual capacity requirements are around 210,000 DMT of lead concentrates and 180,000 DMT of zinc concentrates. Cyprus Anvil has had preliminary discussions with Bunker Hill.

Smelter and Ocean Freight Charges

Cyprus Anvil's smelter costs in the Japanese market over the past 10 years are indicated below. A summary of 1981 contract terms is attached as Appendix VII. Specifications of 1981-1982 concentrate production are provided in Appendix III. Present market conditions suggest that Cyprus Anvil's zinc concentrates could be treated for around \$160-170 US/DMT. The lead concentrate treatment costs would be in the order of \$140-150 US/DMT.

	<u>Zinc</u>		<u>Lead</u>	
	<u>Metal Price</u> (U.S.¢/lb.)	<u>Smelting Cost</u> (U.S.\$/DMT)	<u>Metal Price</u> (U.S.¢/lb.)	<u>Smelting Cost</u> (U.S.\$/DMT)
1973	23.9	86.91	19.5	77.15
1974	35.3	130.10	26.8	123.65
1975	36.9	136.50	18.8	78.73
1976	36.1	137.69	20.9	128.09
1977	32.4	125.66	28.2	159.11
1978	27.5	139.69	29.9	161.98
1979	35.8	159.37	53.3	180.01
1980	36.1	160.39	41.3	161.92
1981	41.3	138.58	33.7	149.82
1982	37.8	115.50	25.1	126.00

Ocean freight costs to Japan are presently in the order of \$15 U.S. per tonne of concentrate. Freight rates to Europe are around \$23 U.S. per tonne. These rates will vary according to volumes and season.

Zinc

Zinc metal is used primarily in diecasting in the automobile industry, and for anti-corrosion in the construction industry. The recession hurt both industries, but consumption is recovering as these industries rebound and steel output climbs. With zinc metal inventories falling 164,000 tonnes during 1983, significant price improvements have occurred, particularly in the U.S. One of the major concerns to concentrate suppliers has been potential smelter closures. Although some closures have occurred these have been more than offset by smelter expansion and reactivation in Europe, Asia and North America. This augurs well for treatment charges moving in favour of concentrate suppliers in the future.

Lead

The major use of lead is for the manufacture of batteries for the automobile industry which until very recently has been hard hit by the recession. Smelter production of lead has been maintained due to favourable treatment charges and precious metal credits. Lead prices declined to all time lows, in real terms, during 1983. The U.S. prices have been increasing in response to strengthening markets for original equipment and replacement automotive batteries. Improvement in Europe has been slower and London Metal Exchange ("LME") prices have remained depressed. The U.S. and LME prices are moving together as some LME inventories are being sold to the U.S. World lead metal inventories are estimated to have fallen 38,000 tonnes in 1983. Despite an increase in mine production, the overall supply is expected to decline as secondary lead production continues to contract.

Unlike other metals, such as molybdenum and nickel, inventories of both lead and zinc as metal have recently been estimated at less than 2 months supply, despite the world recession.

Silver

There are various forecasts for future silver prices. Most tend toward upward volatility due to international political and financial uncertainty, overriding the impact of industrial uses as a major factor in pricing.

Metal Prices

Comparison of average prices over the last 10 years to current prices is as follows:

		<u>10 Year Average</u> (\$US, 1984)	<u>5 Year Average</u> (\$US, 1984)	<u>March 14, 1984</u> (\$US)
Lead ¢/lb	LME	0.42	0.39	0.21
	U.S.			0.25
Zinc ¢/lb	E.P.P.	0.51	0.42	0.48
	U.S.			0.535
Silver \$/oz		10.63	13.48	9.87

Concentrate sales contracts are written in U.S. dollars. The prices shown in the Key Statistics section are expressed in Canadian currency and reflect actual prices received after weighting for the applicable sales in the various quotational periods.

TAX POOLS

Cyprus Anvil's tax pools as at December 31, 1983 are as follows:

	(\$000,000)
Earned Depletion	20.98
Canadian Exploration Expense	14.23
Foreign Exploration Expense	.38
Canadian Development Expense	9.36
UCC Class 1	1.09
3	.29
6	3.05
8	.20
10 (1)	95.33
12	29.22
13	.87
24	18.03
Investment Tax Credits	7.30
Loss Carry-Forward (2) (3)	91.0
Capital Loss	.05

Notes:

1. Most of this Class 10 pool results from recent expenditures on grinding and flotation circuits in the mill, increasing such capacity by in excess of 25%. It is anticipated that further modest expenditures will increase overall throughput capacity to 4.1 million tonnes, a 25% increase over past production levels. Cyprus Anvil will make a tax ruling request to have these expenditures reclassified as Class 28, permitting a faster CCA rate and a small increase in depletion banks.

<u>Year of Loss</u>	<u>Good Through</u>	<u>Amount</u> <u>(\$ millions)</u>
1981	1986	6.1
1982	1987	56.9
1983	1990	28.0 Est.

3. Loss carry-forward will be \$100 million by March 31, 1984, as a result of on-going stripping operations, and could be further increased by CCA claims for 1983 if beneficial to a purchaser.

These tax pools may be used against other income by a purchaser of 100% of Cyprus Anvil shares as indicated below:

- Earned Depletion - may be claimed against any resource income to a maximum of 25% of resource income

- Canadian Development Expense - may only be claimed against income from assets in Cyprus Anvil at the time of purchase of Cyprus Anvil shares or against proceeds of sale of Cyprus Anvil assets

- Unclaimed Capital Costs - may be claimed against any income at the rates applicable to the various classes. Most of these pools may be claimed at a rate of 30% declining balance or faster.

- Investment Tax Credits - may be claimed against tax payable to a maximum of 50% of tax payable

- Loss Carry-Forward - may be claimed against similar income, so long as the Cyprus Anvil business is also carried on

CYPRUS ANVIL MANAGEMENT

Consistent with the reduced scope of activities during the stripping operation, the mine management and administrative staff have been reduced. Additionally, to improve the technical and administrative support available to the operations, the corporate management and administrative functions have been largely centralized in Dome's Calgary office.

a) Mine

The mine staff has been pared down to about 45 persons. Mr. Denis Gregoire, previously Mine Superintendent, has been appointed Resident Mine Manager. He has been with Cyprus Anvil since 1975 and prior to being Mine Superintendent, was Chief Engineer.

The Mine Operations Manager, Mike Nicholson, is a Dome Petroleum employee seconded to Cyprus Anvil who has had previous experience with Syncrude Canada and with a copper mine in Zambia.

Recently, Cyprus Anvil hired John Maisson as Mill Operations Manager. He was previously assistant mill superintendent at the Geco division of Noranda Mines Limited and will be responsible for the milling and maintenance functions. A chief metallurgist, Brian Arsenault, formerly with Heath Steele Mines Limited, has also been hired. In addition, other key personnel with experience in the mill have been kept on staff to develop improved mill operating practices and metallurgical recoveries and to facilitate the future mill start-up.

b) Corporate

The Vancouver office of Cyprus Anvil has been continued but with a much reduced scope of activities. Mr. Ted Andrew, Comptroller, with a staff of five people, is responsible for corporate accounting, records and payroll.

The exploration staff has been reduced and currently consists of two senior geologists located in Vancouver.

The Marketing, Finance and Treasury functions have been moved to Calgary.

The Corporate Management Team consists of:

Mr. Earle Forgues	President of Cyprus Anvil
Mr. Jim McKibbin	Vice President of Cyprus Anvil
Mr. Rik Visagie	Technical, Planning
Mr. Tony Brown	Marketing
Mr. Brian Karst	Engineering, Special Studies
Mr. Andy Johnston	Corporate Economics
Mr. Dick Duczek	Industrial Relations
Mr. Ron Buckley	Geology, Exploration
Mr. Robin MacKnight	Legal Counsel

This group is responsible for corporate matters, and functions outside the mine site. The group, together with representatives from the mine and the Vancouver office, form a Management Committee to direct the operations of Cyprus Anvil.

It is anticipated that the personnel at Faro and Vancouver would remain with Cyprus Anvil upon divestiture by Dome Petroleum, and that the Corporate Management Team would resume other duties within Dome Petroleum.

LEGAL PROCEEDINGS

Cyprus Anvil is presently involved in three major disputes; one concerning its transportation agreement with the Whitepass and Yukon Railway, one concerning its takeover of Vangorda Mines Ltd. in 1979, and one concerning power supplied to the mine by NCPC.

WP&Y has filed Miners' Liens and Mechanics' Liens against certain of Cyprus Anvil's properties, and has commenced an action in the Supreme Court of the Yukon Territory to enforce these liens. WP&Y is claiming \$3.74 million as liquidated damages arising out of Cyprus Anvil's failure to ship concentrate due to the mine shutdown. Cyprus Anvil has maintained that the force majeure provisions of the shipping agreement relieve it of its obligation to ship concentrate during periods of mine shutdown. Discoveries in the action are now in progress, and the trial has been scheduled tentatively for October 1984. WP&Y has offered to settle for \$2.7 million, whereas Cyprus Anvil has offered to settle for \$1.4 million. Outside counsel holds a favorable view of Cyprus Anvil's position.

Certain minority shareholders representing 75,000 shares of Vangorda Mines Ltd. have brought an action under Section 199 of the Canada Business Corporations Act to be paid the "fair value" of their shares of Vangorda Mines Ltd. as a result of Cyprus Anvil's takeover in 1979. The original trial decision set a formula which would have established the fair value at approximately \$22 per share, well in excess of the \$1.50 price accepted by other shareholders and the price which Cyprus Anvil feels is reasonable. Cyprus Anvil has challenged this formula and the B.C. Supreme Court has reopened certain aspects of the trial for new evidence to be submitted to clarify the components and operation of that formula. Renewed discoveries on such new evidence have been held, and the rehearing will commence April 2, 1984.

Cyprus Anvil has long maintained that the power rates charged by NCPC are discriminatory. Early in 1983 NCPC and Cyprus Anvil established a board of arbitration to review a number of disputes between the parties including NCPC's minimum billing and cost of service. The arbitration has since been expanded. Cyprus Anvil is encouraged by the arbitrators' decisions to date.

APPENDICES

APPENDIX I

ANVIL DISTRICT GEOLOGICAL RESERVES AND GRADE

Deposit	Geological Reserves (000 Tonnes)	Cut Off %	Metal Content				
			Lead %	Zinc %	Copper %	Silver gms/DMT	Gold gms/DMT
<u>FARO</u>							
.Proven							
Pit	33,000		3.0	4.6	0.16	35.7	0.16
Ramp	203	4%	3.7	4.5	*	60.0	*
.Probable							
Southwest	1,950	7%	5.2	7.3	*	73.8	*
TOTAL	35,153		3.1	4.7	0.16	38.0	0.18
.Possible							
Southwest	1,950	7%	Comb. 12.5%				
Northwest	2,000	4%	Comb. 8.5%				
<u>GRUM</u>							
.Proven							
62-86 W	35,400	3%	3.32	5.43	0.15	56.0	0.84
.Probable							
51-62 W	1,700	4%	3.51	4.28	*	46.0	*
TOTAL	37,100		3.33	5.38	0.15	55.5	0.84
.Possible							
86-100 W	8,000	7%	Comb. 10.0%				
TOTAL							
<u>VAINGORDA</u>							
.Proven							
2 W-12 E	6,200	3%	3.0	4.0	*	44.0	0.77
12-28 E	2,500	3%	3.3	3.5	*	46.0	0.78
.Probable							
28-38 E	400	4%	2.4	4.8	*	50.0	0.78
TOTAL	9,100		3.1	3.9	*	45.0	0.78
<u>DY</u>							
.Probable							
A2	13,612	7%	5.9	6.1	0.14	86.0	1.06
A3	960	7%	5.0	5.8	0.16	64.0	0.59
B2	6,487	7%	4.9	8.1	0.08	83.0	0.76
TOTAL	21,059		5.5	6.7	0.12	84.0	0.95
<u>SWIM</u>							
.Probable							
	4,300	6%	3.8	4.7	*	47	*

* grades exist but have not been calculated

APPENDIX I

FARO DEPOSIT

The Faro Deposit is a strataform, stratabound massive sulphide ore body approximately 1,350 metres by 700 metres with a gentle dip to the southeast. The reserves of 35,000,000 tonnes are estimated using a cut-off grade of approximately 4% combined zinc and lead or higher. The geologic sections are being revised. It is expected that better reserve definition will enable batching of ore types through the mill. This will result in better recoveries and reduced milling costs.

The mineable reserves are calculated using the Mintec computer program and the calculated grade is reduced 5% as an allowance for dilution. The probable and possible reserves in the southwest and northwest of the pit are not included in the mineable reserves. Drilling is required to prove up the possible reserves and add a further 5,900,000 tonnes of open pit and/or underground material to the Faro mineable reserve. This drilling is planned for March 1984.

ORE RESERVES

(83/01/01)

<u>Nature of Reserves</u>	<u>Cut off %</u>	<u>Tonnes (000,000)</u>	<u>Lead %</u>	<u>Zinc %</u>	<u>Silver (gms/DMT)</u>	<u>Copper %</u>	<u>Gold (gms/DMT)</u>
Mintec Model	4.0	26.4	3.05	4.56	41.8	.15	.18
	2.5	29.7	2.85	4.28	39.7	.15	.18
Mill Feed							
o Mineable reserves							
- Main Pit	4.0	26.4	2.90	4.33	39.7	.15	.18
- Ramp Zone	4.0	.2	3.50	4.30	57.0	.15	.18
o Oxide Stockpile (1)	-	1.3	2.90	4.70	37.6	-	-
o Low Grade Stockpile	3.0	1.2	1.40	2.30	28.5	-	-
TOTAL		29.1	2.84	4.26	39.3	.15	.18

Note:

- (1) Low grade stockpile results from segregating material grading above 3% combined zinc-lead but below the 4% cut off.

APPENDIX I

GRUM DEPOSIT

The Grum Deposit, located approximately 9 miles from the Faro minesite, consists of two sulfide horizons which are structurally complicated by successive fold deformation and faulting.

Grum was discovered in 1973, by A.E.X. Syndicate. Prior to the acquisition of the property in 1979 by Cyprus Anvil, more than 41,000 metres of surface diamond drilling, a 2,900 metre exploration decline, 15,000 metres of underground diamond drilling, bulk sampling and metallurgical pilot plant testing of the ore had been done.

Cyprus Anvil is currently in the process of relogging the Grum deposit and preparing the data base for computer modelling. However, to date a geological reserve of 37,100,000 tonnes of 8.7% combined zinc-lead has been hand calculated on cross-sections between 51 and 86 West: the eastern end of the deposit. The deposit is open with 8,000,000 tonnes of possible ore to the west.

The amount of reserve that can be mined by open pit methods is dependent on the stripping ratio and the relative economics of underground mining. Initially, a small pit with a low stripping ratio was designed: more recently an increment to this pit has been estimated. The stripping volume calculation and mineable ore reserve is shown for both pits. The larger pit is assumed in the foregoing mining plan. Grades for the pitable ore are estimated as 90% of the calculated sectional grade. The remaining reserves not included in either pit but available for underground extraction are also summarized below.

PIT CHARACTERISTICS (000,000)

	<u>Small Pit</u>		<u>Increment</u>		<u>Large Pit</u>	
	<u>BCM</u>	<u>Tonnes</u>	<u>BCM</u>	<u>Tonnes</u>	<u>BCM</u>	<u>Tonnes</u>
Overburden	12.0	21.7	4.7	8.3	16.7	30.0
Waste	34.4	94.1	31.4	86.2	65.8	180.3
Ore	<u>5.6</u>	<u>17.4</u>	<u>2.6</u>	<u>10.6</u>	<u>8.2</u>	<u>28.0</u>
TOTAL	52.0	133.2	38.7	105.1	90.7	238.3

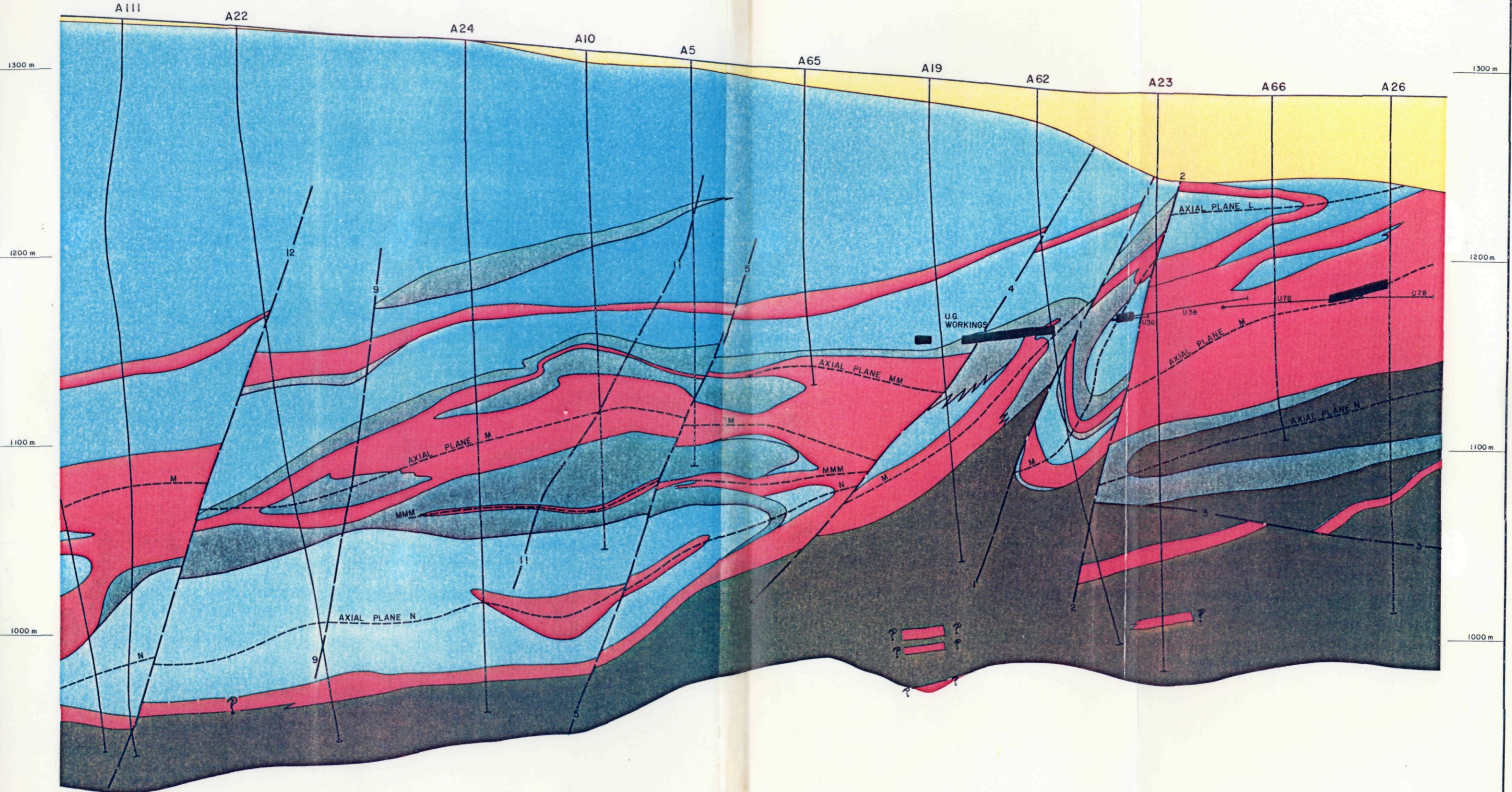
MINEABLE RESERVES (51 W to 86W)

<u>Nature of Reserves</u>	<u>Cut off %</u>	<u>Tonnes (000,000)</u>	<u>Lead %</u>	<u>Zinc %</u>	<u>Silver (gms/DMT)</u>	<u>Copper %</u>	<u>Gold (gms/DMT)</u>
<u>Large Pit</u>							
Open Pit	3.0	28.0	3.00	4.9	50	.15	.7
Potential Underground	7.0	5.2	4.25	7.0	71	.15	.7
<u>Small Pit</u>							
Open Pit	4.0	17.4	3.40	5.87	58	.15	.7
Potential Underground	7.0	9.9	4.28	6.80	72	.15	.7

Note: Gold and copper grades are deposit averages

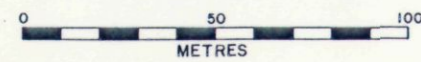
N.W.

S.E.



LEGEND:

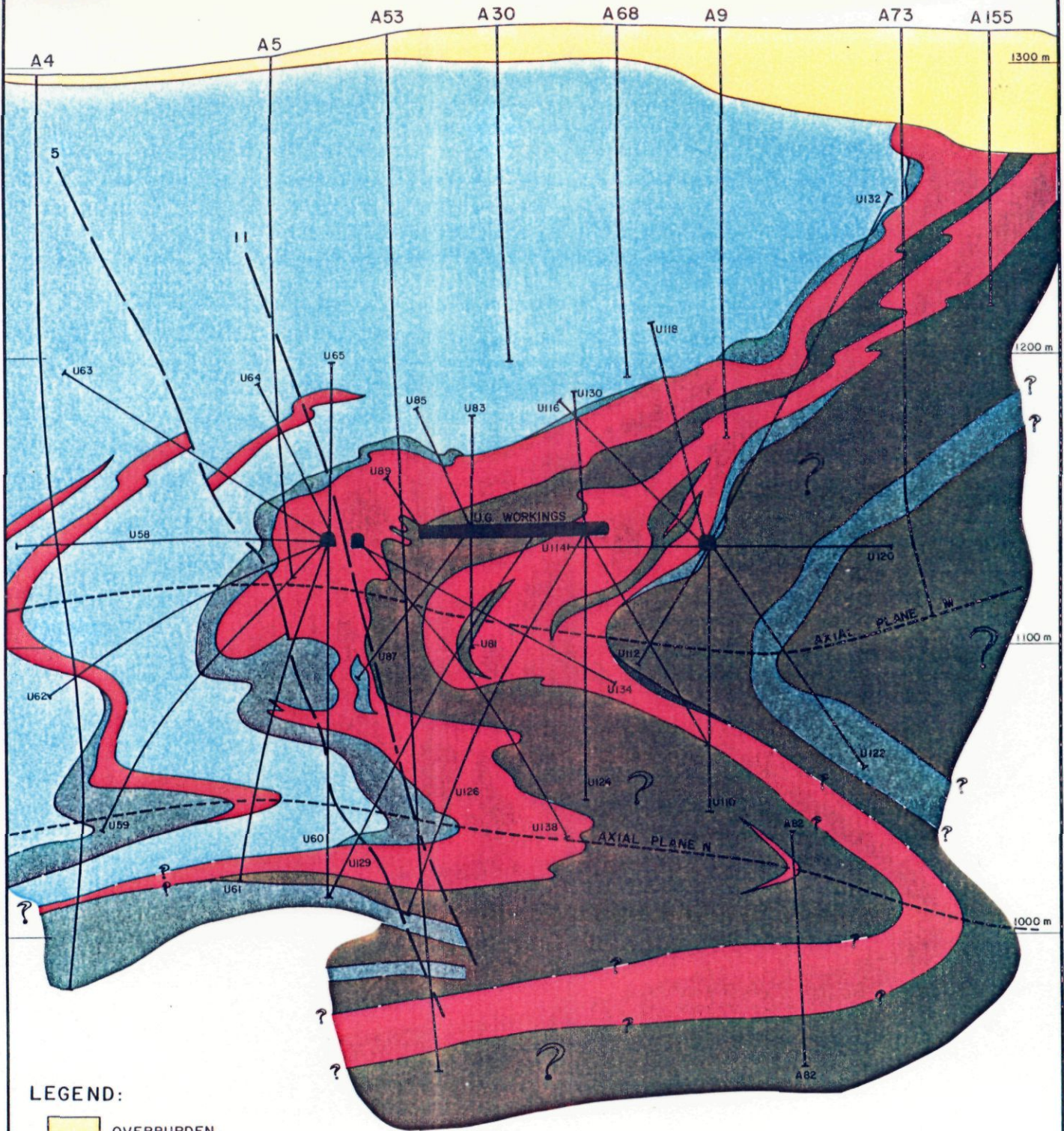
- OVERBURDEN
- VANGORDA FORMATION**
 - CALCAREOUS PHYLLITE; CALC-SILICATES
 - GRAPHITIC PHYLLITE / SCHIST
- SULPHIDE HORIZON(S)
- MT. MYE FORMATION
- NON-CALCAREOUS PHYLLITE / SCHIST
- AXIAL PLANE TRACE
- FAULT



GRUM DEPOSIT
LONGITUDINAL SECTION
2N/W

S.W.

N.E.



LEGEND:

- OVERBURDEN
- VANGORDA FORMATION**
- CALCAREOUS PHYLLITE ; CALC-SILICATES
- GRAPHITIC PHYLLITE / SCHIST
- SULPHIDE HORIZON(S)
- MT. MYE FORMATION**
- NON-CALCAREOUS PHYLLITE / SCHIST
- AXIAL PLANE TRACE
- FAULT



GRUM DEPOSIT
CROSS SECTION
76 W

APPENDIX I

VANGORDA DEPOSIT

The Vangorda Deposit, the first mineral deposit found in the Anvil district, was discovered in 1953. It is adjacent to the Grum and is situated approximately 10 miles from the minesite. Definition diamond drilling was done in 1954 and 1955 by a subsidiary of Kerr Addison Mines Ltd.

Drilling was continued in 1979 by Cyprus Anvil and provided the basis for a new geological model. The 1979 drilling program consisted of 63 holes, representing 10,500 metres of drill core. An additional 2,900 metres were drilled in 1980 and 1981.

In 1981, a rough pit was designed to mine the reserves at the west end of the deposit between 2 W and 12 E. This pit encompassed 5,232,400 tonnes of reserves and required removal of 2,425,400 BCM of overburden and 4,882,100 BCM of waste. The early drilling indicated that significant reserves exist to the east between 12 E and 36 E and this was confirmed by CAMC drilling. This additional reserve is shallower than the initial pit and consequently a simple linear extrapolation has been used to forecast pit limits in the absence of detailed engineering. A total of 3,500,000 BCM of overburden and 7,100,000 BCM of waste will be removed during the mining of the larger reserve. A smaller pit, based on a 4% combined zinc-lead cut off grade, would have 3,000,000 BCM of overburden and 5,545,000 BCM of waste.

<u>Nature of Reserves</u>	<u>Cut off %</u>	<u>Tonnes (000,000)</u>	<u>Lead %</u>	<u>Zinc %</u>	<u>Silver (gms/DMT)</u>	<u>Copper %</u>	<u>Gold (gms/DMT)</u>
Mineable-open pit (1)	3%	7.6	2.95	3.7	43	.14	.75
Smaller pit	4%	5.7	3.32	4.2	48	.14	.75

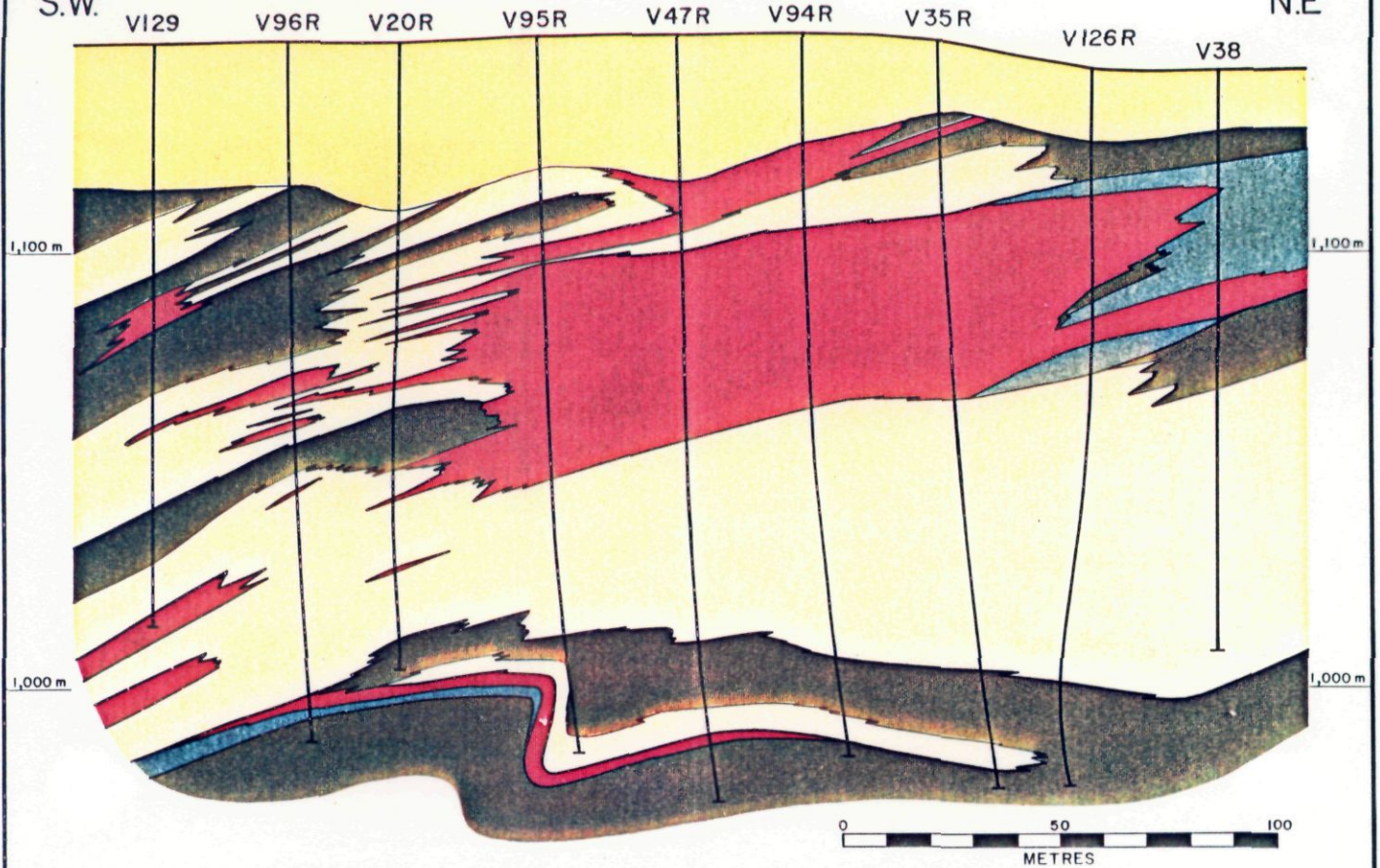
Note:

(1) 5% dilution used rather than the 10% for Grum because of the simpler structure.

VANGORDA GEOLOGICAL CROSS SECTION 6+00 E

S.W.

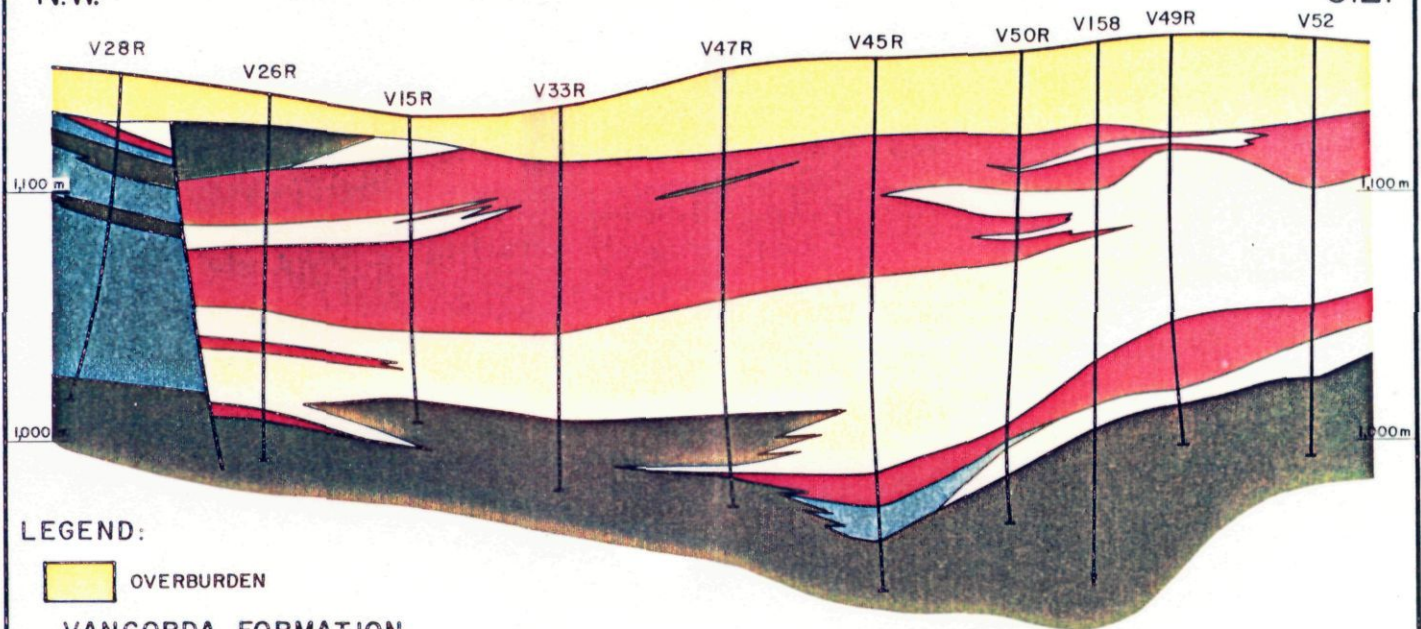
N.E.



VANGORDA LONGITUDINAL SECTION 0+00

N.W.

S.E.



LEGEND:

- OVERBURDEN
- VANGORDA FORMATION**
- GRAPHITIC PHYLITE /SCHIST
- SULPHIDE HORIZON (S)
- ALTERATION OVERPRINT
- MT. MYE FORMATION**
- NON-CALCAREOUS PHYLITE /SCHIST



APPENDIX I

DY DEPOSIT

The DY deposit is located 12 miles east of the Faro minesite and adjacent to the Vangorda deposit. Cyprus Anvil geologists discovered the deposit in 1976 as a result of detailed structural and lithologic mapping. The deposit has been defined during the past three years by 36,000 metres of diamond drilling but is still open in three directions. The mineralization occurs in two horizons, is folded and varies in depth, from 650 to 900 metres.

Due to the high cost of drilling this deep deposit, it is proposed that follow-up exploration be from underground by sinking an exploration shaft.

ORE RESERVES

<u>Nature of Reserves</u>	<u>Cut off %</u>	<u>Tonnes (000,000)</u>	<u>Lead %</u>	<u>Zinc %</u>	<u>Silver (gms/DMT)</u>	<u>Copper %</u>	<u>Gold (gms/DMT)</u>
Mineable-underground	7%	15.0	5.7	7.0	82	.12	.95

APPENDIX II

HISTORICAL MILL RESULTS

<u>Year</u>	<u>Ore Milled</u>		<u>Concentrates Grades</u>			<u>Recoveries %</u>	
	<u>% Pb</u>	<u>% Zn</u>	<u>% Pb</u>	<u>% Zn</u>	<u>Bulk % Pb+Zn</u>	<u>Pb</u>	<u>Zn</u>
1971	4.92	6.79	67.1	49.8	46.1	82.7	70.3
1972	4.63	6.22	68.5	50.7	46.8	84.5	73.5
1973	4.88	6.37	66.5	51.1	48.8	84.3	77.3
1974	4.51	5.60	65.0	51.5	49.0	83.4	77.1
1975	4.03	5.41	66.9	50.8	47.7	85.8	80.1
1976	2.66	5.48	67.3	51.4	44.6	81.7	79.6
1977	2.74	4.88	64.1	50.3	50.1	83.7	80.5
1978	3.17	5.14	60.5	50.4	48.9	83.8	79.5
1979	3.26	5.28	61.4	50.4	45.2	84.0	80.9
1980	3.12	4.68	56.9	48.3	44.4	78.0	74.6
1981 (1)(2)	2.9	4.8	55.1	49.5	-	77.2	75.7
1982	2.8	4.8	57.8	49.2	-	74.2	76.3

Notes

- (1) Bulk concentrates were eliminated in 1981 because there was no metallurgical advantage in producing such a concentrate. Historically bulk concentrate consisted mainly of spillage from floatation basement and clean-up in and around the load-out-area with material added from floatation cells as necessary.
- (2) In 1981, the Faro mill was modified significantly. Modifications have not been fully completed.
- (3) Operations were suspended on June 4, 1982.

APPENDIX II

FORECAST MILL RESULTS

<u>Deposit</u>	<u>Ore Grade</u> %	<u>Recovery</u> %		<u>Concentrate Grade</u> %	
		<u>Mine Planning</u>	<u>Predicted</u>	<u>Mine Planning</u>	<u>Predicted</u>
1. Faro					
- lead	2.91	81.98	87.5	60.71	67.0
- zinc	4.34	84.55	88.5	51.13	53.5
- silver	36.19*	59.44	65.0	17.59**	19.3**
2. Grum					
- lead	3.00	80.00	80.00	60.00	60.00
- zinc	4.90	83.00	83.00	55.00	55.00
- silver	50.00*	65.00	65.00	26.10**	26.10**
- gold	.70*	35.00	35.00	.20**	.20**
3. Vangorda					
- lead	2.95	78.22	78.22	60.00	60.00
- zinc	3.70	82.68	82.68	50.68	50.68
- silver	43.00*	61.94	61.94	22.20**	22.20**
- gold	.75*	38.86	38.86	.24**	.24**

* grams/DMT

** oz/DMT of lead concentrate

Notes:

- o Two concentrates, lead concentrate, zinc concentrate.
- o Silver and gold are payable to lead concentrate only.
- o Predicted recoveries are those predicted in studies leading to mill expansion.

APPENDIX III

CONCENTRATE SPECIFICATIONS (1)

<u>Element (Percent)</u>	<u>Zinc Concentrates</u>	<u>Lead Concentrates</u>
Au (gms/DMT)	0.37	1.79
Ag (gms/DMT)	49.69	504.94
Zn (%)	49.68	5.89
S (%)	31.80	18.54
Fe (%)	10.94	7.03
Pb (%)	2.32	57.71
Cu (%)	0.62	0.37
Insol. (%)	5.73	7.12
Bi (%)	.003	0.007
SiO ₂ (%)	1.77	6.53
Ca O (%)	0.20	0.18
Cd (%)	0.12	0.009
As (%)	0.02	0.05
Hg (ppm)	312.81	45.19

Note:

(1) Average chemical composition of concentrates produced during 1981 and 1982.

APPENDIX IV

COMPANY FACILITIES

Total investment in facilities has been \$200 million and includes:

- o Mining equipment.
- o A lead/zinc concentrator and ancilliary water supply, and tailings impoundment dam.
- o Housing to accommodate up to 700 employees.
- o Shops, warehouse, and office buildings.

An additional \$130 million has been spent on exploration and development work.

1) Mining Equipment

The major components of the fleet are:

- 8 x 170 ton Euclid Haul Trucks with an average service of less than 1 year.
- 28 x 120 ton Wabco Haul Trucks with an average service of 4 years.
- 3 x 15 cu.yd. P & H electric shovels used for an average of 5 years.
- 1 x 12 cu.yd. Marion electric shovel used for 8 years.
- 2 x 10 cu.yd. L 800 diesel powered loaders used for an average of 3 years.
- 1 Marion M 4 diesel powered blast hole drill used 9 years.
- 1 Marion M 4 electric powered blast hole drill used 3 years.
- 1 Gardner Denver mobile powered blast hole drill used for 4 years.

2) Concentrator and Ancilliary Facilities

The mill was constructed to an initial capacity of 5,500 tonnes per day in 1969 and has undergone several expansions, the latest being completed in late 1981. The latest expansion included a doubling of the grinding capacity, replacement of the floatation cells with new 1350 cu.ft. Outokumpu units which doubled the floatation capacity, and improvements in dewatering and filtering. In conjunction with this modification a new tailings impoundment area was developed as well as additional back up electric power capacity for an all inclusive cost of approximately \$80 Million.

The mill was shut down prior to final tune up but operated at an average throughput in excess of 10,500 dry metric tonnes per day.

3) Housing

Cyprus Anvil currently owns the following accommodation facilities in the town of Faro:

Detached family homes	125	
Town houses & duplexes	241	
Apartments	48	
Mobile homes (trailers)	45	
Bachelor apartments	32	
Single person accommodation - SPQ	146	(1)
- OTHER	<u>79</u>	
Total Units	716	

The most recent construction program of single detached units was spread over 1980 and 1981 during which time the bachelor apartments were constructed as well as 88 detached family homes, the latter costing in the range of \$140,000 each.

(1) to be converted into approximately 73 apartments.

APPENDIX V

HISTORICAL COST AND REVENUE ANALYSIS

YEAR	DIRECT OPERATING COSTS				-----OVERHEADS-----			TRANSPORTATION			-----SMELTER-----		TOTAL
	MINING	MILLING	COAL	ELECTRIC	OFFICE	MINESITE	TOWNSITE	LAND	TERMINAL	OCEAN	LEAD/ZINC	ADMIN	
1969													
1970	4 369	5 634	215	919	333	1 264	1 024	4 254	1 246	2 302	10 566	272	32 998
1971	5 815	5 887	293	1 000	484	1 323	871	8 380	1 417	2 262	16 262	194	44 188
1972	5 548	7 131	284	1 100	475	1 360	721	8 676	1 368	1 774	23 984	237	52 658
1973	5 838	7 285	375	1 300	690	1 720	1 057	9 349	1 433	3 669	40 510	209	73 435
1974	8 425	9 901	306	1 900	591	2 329	1 535	8 798	1 435	2 909	46 955	99	85 183
1975	11 556	13 422	580	2 300	1 069	3 457	1 889	13 384	1 636	3 823	59 653	343	113 112
1976	8 297	8 051	461	1 543	1 256	3 101	2 571	5 851	1 548	1 733	24 204	68	58 684
1977	14 653	15 795	303	3 349	1 721	4 078	3 256	12 653	1 642	3 147	52 521	259	113 377
1978	19 629	16 336	649	3 824	1 752	4 240	2 894	13 726	2 169	4 779	62 706	572	133 276
1979	20 627	16 492	570	3 552	3 693	5 509	4 162	15 587	2 244	6 938	79 408	580	159 392
1980	12 384	18 343	647	4 298	4 307	8 369	5 328	16 198	2 494	8 977	81 296	620	163 261
1981	39 966	21 821	1 544	6 579	4 746	11 045	6 788	17 999	2 494	7 145	51 645	650	172 422
1982	20 361	16 210	1 285	6 406	3 712	8 904	5 423	12 258	2 145	6 606	29 253	379	112 942
1983	9 973	2 719	177	1 450	2 852	9 598	2 518		179	315		300	30 081

YEAR	REVENUE	OPERATING COSTS	CAPITAL	FEDERAL		DIVS	INTEREST	MIS	WORKING CAPITAL	CASH FLOW
				TAXES	ROYALTIES					
1969			76 700						(646)	(76 054)
1970	40 519	32 998	2 712				5 258	(12)	4 100	(4 537)
1971	56 034	44 188	3 259		506		5 258	(593)	1 364	2 052
1972	74 078	52 658	1 261		828		4 843	(1 193)	4 321	11 360
1973	112 908	73 435	9 089		3 235		3 723	1 246	(5 057)	27 237
1974	128 463	85 183	6 629	3 250	3 066		996	664	14 285	14 390
1975	157 877	113 112	11 486	8 260	286	4 569	42	(16)	(9 505)	29 643
1976	56 666	58 684	8 203	(3 207)		4 569	323	611	1 103	(13 620)
1977	126 459	113 377	15 278		33	4 569	852	245	11 083	(18 978)
1978	140 211	133 276	6 581		180	1 142	1 857	58	(10 277)	7 394
1979	235 462	159 392	36 234	10 900	5 840	5 734	934	2 182	1 749	12 497
1980	199 718	163 261	45 262	1 250	1 650	6 141	(522)	2 192	1 038	(20 554)
1981	157 390	172 422	66 130			2 688	6 723	2 932	(3 321)	(90 184)
1982	85 561	112 942	17 040				20 039	8 227	(3 371)	(69 316)
1983		30 081	1 055				14 941	16		(46 093)

APPENDIX VI

FARO DEPOSIT CAPITAL COSTS
(\$000)

	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>
Mine Capital								
- Haul Trucks	-	1,250	2,500	-	-	-	-	-
- Shovels	-	750	-	-	-	-	-	-
- Drills	150	1,080	-	-	-	-	-	-
- Dozers	-	1,030	-	540	-	-	-	-
- Graders	-	375	-	430	-	-	-	-
- Loaders	-	200	430	-	-	-	-	-
- Other	<u>100</u>	<u>893</u>	<u>2,360</u>	<u>1,500</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>
	250	5,578	5,290	2,470	1,000	1,000	1,000	1,000
Mill Capital								
- Start up	7,000 (1)	-	-	-	-	-	-	-
- Process Control	-	500	500	500	-	-	-	-
- Miscellaneous	<u>-</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>
Environmental								
- Tailings	-	-	-	-	1,500	-	-	-
- Other	-	100	200	200	200	200	200	200
Townsite								
	<u>-</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
TOTAL	7,250	6,778	6,590	3,770	3,300	1,800	1,800	1,800

Notes: (1) remaining \$1,000,000 of mill start-up program is included in 1984 operating costs.

APPENDIX VII

SUMMARY OF SMELTER CONTRACT TERMS - 1981

CYPRUS ANVIL MINING CORPORATION
CONTRACTS SUMMARY 1981
ZINC CONCENTRATES

<u>Metal Payments</u>	Deduct 8 units or 15% Pay balance at EPP for GOB zinc as in "Metal Bulletin"	Deduct 8 units or 15% Pay balance at EPP for GOB zinc as in "Metal Bulletin"	Deduct 8 units or 15% Pay balance at EPP for GOB zinc as in "Metal Bulletin"	Deduct 8 units or 15% Pay balance at EPP for GOB zinc as in "Metal Bulletin"
Zn				
Cd	Deduct .2 unit Pay 50% of balance at producer's price as in "Metals Week"	Deduct .2 unit Pay 50% of balance at producer's price as in "Metals Week"	Nil	Deduct 2 lbs/DMT Pay 65% of balance at L.M.B. quotation for sticks, free market, CIF
Ag	Deduct 5 oz. Pay 60% of balance at H&H price for silver in unrefined materials	Deduct 5 oz. Pay 60% of balance at H&H price for silver in unrefined materials	Nil	Deduct 1.5 oz/mt. Pay balance at London BB Spot.
<u>Treatment Charge</u>				
Base	\$125.00 @ 37.42¢ (\$825)	\$125.00 @ 37.42¢ (\$825)	\$140.00 @ 35.38¢	\$130.00 @ 35.38¢ (\$780)
Escalator Up	\$3.50/1¢ 37.42-41.96¢ \$3.00/1¢ > 41.96¢ (\$925)	\$3.50/1¢ 37.42-41.96¢ (\$925) \$3.00/1¢ > 41.96¢ (\$925)	\$3.50/1¢ 35.38-40.82¢ (\$900) \$3.00/1¢ 40.82-45.36¢ (\$1000) \$2.50/1¢ > 45.36¢ (\$1000)	\$2.00/1¢ > 35.38¢.
Down	\$3.00/1¢ < 37.42¢ (\$825)	\$3.00/1¢ < 37.42¢ (\$825)	\$2.50/1¢ < 35.38¢ (\$780)	\$2.00/1¢ < 35.38¢
<u>Stop Clause</u>	Nil	Nil	If PP < 29.48¢ (\$650), seller can stop contract for unshipped balance.	Nil
<u>Shipment Basis</u>	C & F Japan	C & F Japan	CIF Rotterdam/Antwerp (Buyer Option)	Stowed and spout-trimmed FOB Skagway
<u>Quotational Period</u>	Month following arrival at first port	Month following arrival at first Port	Month following arrival at Discharge Port	Month of Shipment
<u>Payment</u>				
1st Provisional	80% on shipment Prices on last market day prior to B/L Date	80% on shipment Prices on last market day prior to B/L Date	100% 60 days after arrival at Discharge Port	90% on Documents - Letter of Credit
2nd Provisional	16% before B/L + 120 days	16% before B/L + 120 days	Nil	Nil
<u>Currency</u>	Nil	Nil	Talk if DM below 1.65 for 30 working days	Nil
<u>Commission</u>	Nil	Nil	Nil	2.5% of FOB Value Skagway
<u>Bank Charges</u>	Nil	Nil	Nil	\$5 for L/C plus 1/10 of 1% of L/C
<u>Contract Period</u>	Through 1983	Through 1983	Through 1981	Through 1981
<u>Terms Fixed</u>	Through 1981	Through 1981	Through 1981	Through 1981
<u>Contractual Quantities</u>	76,000 DMT/Year	134,000 DMT/Year	9,000 DMT	20,000 DMT/Year plus/minus 10% (Seller's Option)
<u>1981 Quantities</u>	76,000 DMT	134,000 DMT	9,000 DMT	20,000 DMT/Year plus/minus 10% (Seller's Option)

CYPRUS ANVIL MINING CORPORATION

CONTRACTS SUMMARY 1981

LEAD CONCENTRATES

<u>Metal Payments</u>					
<u>Pb</u>	95% (or deduct 3 units) at average 4 LME morning quotations	95% (or deduct 3 units) at average 4 LME morning quotations	95% (or deduct 3 units) at average - 4 max. settlement	95% (or deduct 3 units) at average 4 LME morning as in "Metal Bulletin"	95% (or deduct 3 units) @ avg. 4 LME morning as in "Metal Bulletin"
<u>Ag</u>	Deduct 1 oz/DMT or 5% at H&H price for silver in unrefined materials as in "Metals Week"	Deduct 1 oz/DMT or 5% at H&H price for silver in unrefined materials as in "Metals Week"	Deduct 1 oz/DMT or 2% at London Spot for bar fine silver as by Sharps, Pixley, Ltd.	95% (or deduct 1 oz/DMT) at H&H price for silver in unrefined materials as in "Metals Week" or London Spot as in "Metal Bulletin" (Buyer Option)	95% (or deduct 30g/DMT) at London BB Spot
<u>Au</u>	If > .03 oz/DMT, pay 96.75% at average of AM/PM London Spot as in "Metal Bulletin"	If > .03oz/DMT, pay 96.75% at average of AM/PM London Spot as in "Metal Bulletin"	Deduct 1.0 g/DMT, Pay balance at London BB AM/PM as in "Metal Bulletin"	95% (or deduct 1g/DMT) at London BB average of AM/PM as in "Metal Bulletin"	95% (or deduct 1g/DMT) at London BB average of AM/PM as in "Metal Bulletin"
<u>Cu</u>	Deduct 1.3 units, Pay balance at LME wirebar cash as in "Metals Week" If > 3%, pay 57% of total	Deduct 1.3 units, Pay balance at LME wirebar cash as in "Metals Week" If > 3%, pay 57% of total	Nil	Nil	Nil
<u>Treatment Charges</u>					
<u>Base</u>	\$111.00 @ 22.00¢	\$114.00 @ 20.00¢	\$125.00 @ 32.00¢	\$105.00 @ 25.00¢	\$120.00/DMT
<u>Escalators Up</u>	\$2.50/lc 22.00-30.00¢ \$2.00/lc 30.00-35.00¢ \$1.50/lc > 35.00¢	\$2.50/lc 20.00-25.00¢ \$2.00/lc 25.00-35.00¢ \$1.50/lc > 35.00¢	\$3.00/lc > 32.00¢ \$1.75/lc > 50.00¢	\$2.50/lc 25.00-30.00¢ \$2.00/lc 30.00-35.00¢ \$1.50/lc > 35.00¢	Nil
<u>Duty</u>	Nil	Nil	Nil	U.S. import duty for seller's account if final destination	Nil
<u>Ag Refining</u>	Nil	Nil	\$8.00/kg payable	Nil	Nil
<u>Stop Clause</u>	Nil	Nil	Nil	Nil	Nil
<u>Quotational Period</u>	Month following arrival first Port	Month following arrival first Port	Month following arrival discharge Port	Month following arrival at port or smelter or month following shipment (Buyer Option) 5,000 DMT minimum in either month (Buyer Option)	Month of Shipment
<u>Shipment Basis</u>	C & F Japan	C & F Japan	CIF Rotterdam/Antwerp (Buyer Option)	FOB Trimmed Skagway	FOB Stowed and Spout-Trimmed
<u>Payment</u>					
<u>1st Provisional</u>	80% on Shipment prices on last market day prior to B/L Date	80% on Shipment Prices on last market day prior to B/L Date	80% 30 days after arrival at Discharge Port. Prices on last market day prior to B/L Date	30 days after B/L, receive 80% Prices on 5th day before payment	90% on Documents-Letter of Credit
<u>2nd Provisional</u>	16% before B/L + 120 days	16% before B/L + 120 days	Nil	Nil	Nil
<u>Currency</u>	Nil	Nil	Talk if DM Below 1.65 for 30 Business Days	Nil	Nil
<u>Commission</u>	Nil	Nil	Nil	Nil	1.75% of FOB Value Skagway
<u>Bank Charges</u>	-	-	-	-	\$5 for L/C plus 1/10 of 1% value of L/C
<u>Contract Period</u>	Through 1983	Through 1983	Through 1981	Through 1980	Through 1981
<u>Terms Fixed</u>	Through 1981	Through 1981	Through 1981	Through 1980	Through 1981
<u>Contractual Quantities</u>	38,000 DMT/Year	67,000 DMT/Year	4,500 DMT	10,000 DMT	15,000 DMT/Year plus/minus 10% (Seller Option)
<u>1981 Quantities</u>	38,000 DMT	67,000 DMT	4,500 DMT	about 5,000 DMT	15,000 DMT plus/minus 10% (Seller)