

MINERAIS DO PARANÁ S/A - MINEROPAR
GOIN - GERÊNCIA DE OPORTUNIDADE DE INVESTIMENTOS

ANÁLISE ECONÔMICA
FLUORITA VOLTA GRANDE

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1 - INTRODUÇÃO

O presente trabalho tem por objetivo subsidiar a Diretoria Executiva da Mineropar, através da Gerência de Oportunidade de Investimentos, no repasse à iniciativa privada da jazida de fluorita de Volta Grande, município de Cerro Azul.

Os parâmetros aqui adotados basearam-se naqueles obtidos quando da elaboração do Plano de Viabilidade Econômica da jazida, encaminhado ao DNPM e em processo de análise por aquele órgão.

Os resultados apresentados de maneira alguma têm a pretensão de serem definitivos, haja visto o porte do empreendimento, bem como as dificuldades inerentes ao método de lavra a ser utilizado, devido a localização e características dos corpos mineralizados. Assim, o método proposto, pode ser um entre as várias variantes existentes, mas que julgamos, seja adequado à exploração da referida jazida.

2 - SÍNTESE DO PROJETO

2.1 - Lavra

A jazida de fluorita de Volta Grande é composta por dois corpos mineralizados, totalizando 635.450 t de minério medido e indicado, e um teor médio de 37,63% de CaF_2 .

O Corpo I, com 447.400 t, representa 70,4% da reserva global e daquele total, 82,9% correspondo a minério medido, ou seja, 371.100 t, com teor médio de 46,33% de CaF_2 .

Em vista disto, serão consideradas, para a fase inicial de lavra, as reservas medidas pertencentes ao Corpo I, sendo aquelas pertencentes ao Corpo II exauridas numa segunda etapa, posterior à exaustão do Corpo I.

Devido às características da topografia na região da jazida, uma parcela da reserva de minério será explorada através de lavra à céu aberto, estipulando-se o limite da cava na cota 380 m, nível do Rio Ribeira, situado nas proximidades.

As reservas a serem exauridas pelo método à céu aberto totalizam 106.522 t, o que corresponde à aproximadamente 29% do minério medido pertencente ao Corpo I. Para uma produção de 19.000 t/ano, a vida útil desta lavra será de 5,4 anos, quando se terá início a produção subterrânea.

Para a lavra subterrânea o método proposto será o de corte e enchimento e para a mesma produção estimada, a vida útil desta lavra será de 12,5 anos, podendo vir a ser prolongada, haja visto existir, somente no Corpo I, 76.300 t de minério indicado, suficiente para um mínimo de mais 4 anos de produção.

O enchimento será feito com material proveniente de própria lavra subterrânea, com estéril da lavra à céu aberto e dependendo de estudos posteriores com o rejeito da usina de beneficiamento.

Na perfuração horizontal serão utilizadas perfuratrizes pneumáticas com avanço e na vertical "stopers" manuais.

Devido à pequena produção prevista, a carga do minério nas frentes será feita manualmente e o transporte no subsolo por vagonetas sobre trilhos, até o poço de extração.

2.2 - Beneficiamento

Pelos estudos de beneficiamento realizados, verificou-se ser possível a obtenção de fluorita grau ácido pelo processo de flotação, com granulometria de liberação abaixo de 200 mesh. Isto conduz à necessidade de se briquetar o concentrado, quando da obtenção do produto grau metalúrgico, para que sejam atingidas as especificações granulométricas da indústria consumidora.

A técnica de briquetagem da fluorita é bastante conhecida nos Estados Unidos e Europa, sendo pouco utilizada no Brasil, merecendo estudos mais aprofundados quando do detalhamento do processo.

Para a produção de 19.000 t/ano prevê-se a obtenção de 3.840 t/ano de produto grau ácido e 4.800 t/ano de produto grau metalúrgico, através do processo de briquetagem.

3 - ANÁLISE ECONÔMICA

3.1 - Quadro Resumo dos Investimentos

ITEM	VALOR (Cz\$)
- Investimentos pré-operacionais	Cz\$ 34.122.913,00
- Investimentos lavra à céu aberto	Cz\$ 10.926.000,00
- Investimentos lavra subterrânea	Cz\$ 25.702.400,00
- Investimentos beneficiamento	Cz\$ 23.347.000,00
- Infra-estrutura	Cz\$ 22.013.000,00
SUBTOTAL	Cz\$ 116.111.313,00
- Capital de giro	Cz\$ 4.680.390,00
TOTAL	Cz\$ 120.791.703,00

3.2 - Quadro Resumo dos Custos

ITEM	CUSTO (Cz\$/t benef.)	CUSTO MENSAL (Cz\$)	CUSTO ANUAL (Cz\$)
- Lavra à céu aberto	706,43	508.630,00	6.103.555,00
- Beneficiamento	1.060,57	763.610,00	9.163.325,00
- Administração	402,68	289.931,00	3.479.167,00
- Comercialização	402,68	289.931,00	3.479.167,00
- Eventuais (10%)	257,24	185.213,00	2.222.554,00
TOTAL	2.829,60	2.037.315,00	24.447.768,00

ITEM	CUSTO (Cz\$/t benef.)	CUSTO MENSAL (Cz\$)	CUSTO ANUAL (Cz\$)
- Lavra subterrânea	1.872,86	1.348.459,00	16.181.510,00
- Beneficiamento	1.060,57	763.610,00	9.163.325,00
- Administração	402,68	289.931,00	3.479.167,00
- Comercialização	402,68	289.931,00	3.479.167,00
- Eventuais (10%)	373,88	269.194,00	3.230.323,00
TOTAL	4.112,67	2.961.125,00	35.533.492,00

3.3 - Previsão de Receitas

PRODUÇÃO \ PERÍODO	-01	01 a 18	19
Grau ácido	1.920 t	3.840 t	1.920 t
Preço unitário	Cz\$ 8.496,11	Cz\$ 8.496,11	Cz\$ 8.496,11
SUBTOTAL	Cz\$ 16.312.531,00	Cz\$ 32.625.062,00	Cz\$ 16.312.531,00
Grau metalúrgico	2.400 t	4.800 t	2.400 t
Preço unitário	Cz\$ 7.699,64	Cz\$ 7.699,64	Cz\$ 7.699,64
SUBTOTAL	Cz\$ 18.479.136,00	Cz\$ 36.958.272,00	Cz\$ 18.479.136,00
TOTAL	Cz\$ 34.791.667,00	Cz\$ 69.583.334,00	Cz\$ 34.791.667,00

3.4 - Infra-Estrutura

3.4.1 - Construções Civis na Mina

- Concretagem do poço principal

- . Espessura do revestimento: 0,2 m
- . Extensão total: 78 m
- . Volume de concreto: $78 \text{ m} \times 0,2 \text{ m} \times 12 \text{ m} = 188 \text{ m}^3$
- . Custo do m^3 de concreto acabado: Cz\$ 3.200,00
- . Custo total: $188 \text{ m}^3 \times \text{Cz\$ } 3.200,00/\text{m}^3 = \text{Cz\$ } 602.000,00$

- Casa do guincho

- . Área: 40 m^2
- . Custo unitário: Cz\$ 4.000,00/ m^2
- . Custo total: Cz\$ 160.000,00

- Casa do compressor

- . Área: 20 m^2
- . Custo unitário: Cz\$ 4.000,00/ m^2
- . Custo total: Cz\$ 80.000,00

- Casa do transformador
 - . Área: 40 m²
 - . Custo unitário: Cz\$ 6.000,00/m²
 - . Custo total: Cz\$ 240.000,00

- Paiois de explosivos e acessórios
 - . Área: 20 m²
 - . Custo unitário. Cz\$ 6.000,00/m²
 - . Custo total: Cz\$ 120.000,00

- Oficina da mina
 - . Área: 60 m²
 - . Custo unitário: Cz\$ 4.000,00/m²
 - . Custo total: Cz\$ 240.000,00

- Almojarifado
 - . Área: 40 m²
 - . Custo unitário: Cz\$ 4.000,00/m²
 - . Custo total: Cz\$ 160.000,00

- Escritório
 - . Área: 60 m²
 - . Custo unitário: Cz\$ 4.000,00/m²
 - . Custo total: Cz\$ 240.000,00

3.4.2 - Construções Civas na Usina

- Terraplenagem, drenagem e pavimentação
 - . Volume: 50.000 m³
 - . Custo unitário: Cz\$ 60,00/m³
 - . Custo total: Cz\$ 3.000.000,00

- Obras em concreto
 - . Superestrutura
 - Volume: 200 m³
 - Custo unitário: Cz\$ 3.000,00
 - Custo total: Cz\$ 600.000,00

. Fundações

- Volume: 500 m³
- Custo unitário: Cz\$ 2.500,00
- Custo total: Cz\$ 1.250.000,00

. Pisos

- Volume: 60 m³
- Custo unitário: Cz\$ 1.200,00
- Custo total: Cz\$ 72.000,00

. Escavações

- Volume: 1.400 m³
- Custo unitário: Cz\$ 60,00/m³
- Custo total: Cz\$ 84.000,00

- Estruturas metálicas

. Britagem e concentração, estocagem e filtragem, silos, etc

- Quantidade: 125 t
- Custo unitário: Cz\$ 33.000,00/t
- Custo total: Cz\$ 4.125.000,00

. Cobertura

- Área: 1.200 m²
- Custo unitário: Cz\$ 800,00/m²
- Custo total: Cz\$ 960.000,00

3.4.3 - Energia Elétrica

- Extensão da rede: 12 km
- Custo do km de rede: Cz\$ 200.000,00
- Custo de 1 subestação: Cz\$ 1.800.000,00
- Fator de segurança: 20%
- Investimento total: Cz\$ 5.040.000,00

3.4.4 - Água Industrial e Potável

- 1 bomba centrífuga: Cz\$ 100.000,00
- Casa de bomba (20 m²): Cz\$ 80.000,00
- Reservatório (500.000 l): Cz\$ 320.000,00
- Sistema de tratamento de água: Cz\$ 320.000,00
- Materiais: Cz\$ 40.000,00

- Montagem: Cz\$ 90.000,00
- TOTAL: Cz\$ 950.000,00

3.4.5 - Apoio Logístico

Para apoio das atividades de lavra e beneficiamento, está previsto a aquisição de um caminhão médio, um utilitário tipo "pick-up" e um ônibus, para transporte dos operários de Cerro Azul à área da mina.

O custo previsto dos veículos é o seguinte:

- 01 caminhão médio: Cz\$ 1.700.000,00
- 01 veículo tipo "pick-up": Cz\$ 890.000,00
- 01 ônibus: Cz\$ 1.500.000,00
- TOTAL: Cz\$ 4.090.000,00.

3.4.6 - Quadro dos Investimentos em Infra-Estrutura

ITEM	VALOR
Construções civis na mina	Cz\$ 1.842.000,00
Construções civis na usina	Cz\$ 10.091.000,00
Energia elétrica	Cz\$ 5.040.000,00
Água industrial e potável	Cz\$ 950.000,00
Apoio logístico	Cz\$ 4.090.000,00
TOTAL	Cz\$ 22.013.000,00

3.5 - Investimentos Pré-Operacionais

Como investimentos pré-operacionais tem-se a pesquisa geológica e engenharia básica do processo, já efetuada pela Mineropar e pré-operação da planta de beneficiamento, quando de sua implantação, estimada em 3 meses.

- Pesquisa geológica e engenharia básica: Cz\$ 30.306.193,00
- Pré-operação da planta: Cz\$ 3.816.720,00
- TOTAL: Cz\$ 34.122.913,00

3.6 - Investimentos Lavra à Céu Aberto

3.6.1 - Topografia

80.000 m² x Cz\$ 3,00/m² = Cz\$ 240.000,00

3.6.2 - Desmatamento

Nas condições locais, um trator de esteira desmataria 5.000 m²/dia, tendo o seguinte custo:

25.000 m² ÷ 5.000 m²/dia = 5 dias x 8 h/dia x Cz\$ 1.800,00/h = Cz\$ 72.000,00.

3.6.3 - Terraplenagem e Estradas de Acesso

Da mesma forma, este trabalho será executado por um trator de esteira, no seguinte custo:

10 dias x 8 h/dia x Cz\$ 1.800,00/h = Cz\$ 144.000,00.

3.6.4 - Máquinas e Equipamentos

- 01 compressor portátil XA 120	Cz\$ 3.200.000,00
- 01 pá carregadeira CLARK 75 III	Cz\$ 2.700.000,00
- 01 perfuratriz manual RH 658-5L	Cz\$ 120.000,00
- Acessórios de perfuração	Cz\$ 930.000,00
- Material de oficina	Cz\$ 120.000,00
TOTAL	Cz\$ 7.070.000,00

3.6.5 - Veículos

- 02 caminhões médios

Cz\$ 3.400.000,00

3.6.6 - Quadro dos Investimentos Lavra à Céu Aberto

ITEM	VALOR
Topografia	Cz\$ 240.000,00
Desmatamento	Cz\$ 72.000,00
Terraplenagem e estradas de acesso	Cz\$ 144.000,00
Máquinas e equipamentos	Cz\$ 7.070.000,00
Veículos	Cz\$ 3.400.000,00
TOTAL	Cz\$ 10.926.000,00

3.7 - Investimentos Lavra Subterrânea

3.7.1 - Escavação do Poço Principal

78 m x Cz\$ 7.600,00/m = Cz\$ 592.800,00.

3.7.2 - Escavação dos Poços de Ventilação e Entrada de Enchimentos

243 m x Cz\$ 6.400,00/m = Cz\$ 1.555.200,00.

3.7.3 - Abertura das Galerias de Transporte

293 m x Cz\$ 9.600,00/m = Cz\$ 2.812.800,00.

3.7.4 - Escoramento

As galerias de transporte dos blocos superior e inferior, totalizando 293 m, serão na sua totalidade escoradas, o que acarretaria o seguinte custo:

879 peças de madeira x Cz\$ 400,00/unid =
= Cz\$ 351.600,00.

3.7.5 - Máquinas e Equipamentos

- 01 compressor estacionário	Cz\$	3.600.000,00
- 01 gerador, 60 kva	Cz\$	180.000,00
- 01 bomba de água de 200 cv	Cz\$	520.000,00
- 04 perfuratrizes com avanço RH6564w ...	Cz\$	640.000,00
- 02 perfuratrizes "stoper" BBD 46	Cz\$	510.000,00
- Guincho de tambor simples c/torre	Cz\$	9.000.000,00
- Ventiladores centrífugo e axial	Cz\$	720.000,00
- 20 vagonetas c/0,8 m³ de carga	Cz\$	560.000,00
- Trilhos (420 m)	Cz\$	640.000,00
- Equipamentos de segurança	Cz\$	320.000,00
- Montagens, fretes e seguros (1)	Cz\$	3.700.000,00
TOTAL	Cz\$	20.390.000,00

(1) O custo de montagem, foi calculado como sendo 20% do investimento em ar comprimido, bombeamento de água, ventilação e guincho de produção.
Os fretes e seguros são calculados como 5% do valor total dos equipamentos.

3.7.6 - Quadro dos Investimentos Lavra Subterrânea

ITEM	VALOR
Escavação do poço principal	Cz\$ 592.800,00
Escavação dos poços ventilação e enchimento	Cz\$ 1.555.200,00
Abertura das galerias de transporte	Cz\$ 2.812.800,00
Escoramento	Cz\$ 351.600,00
Máquinas e equipamentos	Cz\$ 20.390.000,00
TOTAL	Cz\$ 25.702.400,00

3.8 - **Investimentos Planta de Beneficiamento**

3.8.1 - Barragem de Rejeitos

- Barragem de rejeitos	Cz\$	4.800.000,00
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3.8.2 - Máquinas e Equipamentos

- 01 britador primário de mandíbulas	Cz\$	1.800.000,00
- 01 britador secundário de mandíbulas ..	Cz\$	1.200.000,00
- 02 peneiras vibratórias	Cz\$	500.000,00
- 01 moinho de bolas	Cz\$	3.400.000,00
- 01 classificador espiral	Cz\$	420.000,00
- 10 ciclones	Cz\$	320.000,00
- 01 condicionador	Cz\$	50.000,00
- 04 baterias de células flotação	Cz\$	500.000,00
- 02 bombas de polpa	Cz\$	350.000,00
- 02 espessadores	Cz\$	1.000.000,00
- 02 bombas de diafragma	Cz\$	72.000,00
- 02 filtros à vácuo	Cz\$	720.000,00
- 01 secador rotativo	Cz\$	900.000,00
- 01 transportador helicoidal	Cz\$	90.000,00
- 02 elevadores de caneca	Cz\$	305.000,00
- 01 briquetadora	Cz\$	2.100.000,00
- 05 transportadores de correia	Cz\$	1.200.000,00
- Equipamentos para oficina e laboratório	Cz\$	1.200.000,00
- Montagens, fretes e seguros (1)	Cz\$	2.420.000,00
TOTAL	Cz\$	18.547.000,00

(1) O custo de montagem foi calculado como sendo 10% do valor total dos equipamentos.
Os fretes e seguros são calculados como 5% do valor total dos equipamentos.

3.8.3 - Quadro dos Investimentos Beneficiamen-
to

ITEM	VALOR
Barragem de rejeito	Cz\$ 4.800.000,00
Máquinas e equipamentos	Cz\$ 18.547.000,00
TOTAL	Cz\$ 23.347.000,00

3.9 - Capital de Giro

Para determinação do capital de giro, considere-se a somatória de:

- . Saldo mínimo de caixa correspondente ao montante de um mês de salários e encargos sociais.
- . Estoque de produto acabado correspondente a 60 dias de produção, considerado à preço de custo.
- . Estoque de peças e ferramentos para o almoxarifado, equivalente a 3% dos investimentos em máquinas, veículos e equipamentos.

ITEM	VALOR
Saldo mínimo de caixa	Cz\$ 531.000,00
Estoque de produto	Cz\$ 2.544.480,00
Almoxarifado	Cz\$ 1.604.910,00
TOTAL	Cz\$ 4.680.390,00

3.10 - Custos Operacionais

3.10.1 - Lavra à Céu Aberto

- Remoção do estéril

- . Produção de um trator de esteira: 20 m³/h
(para 100 m de transporte)
- . Número de horas necessárias: $169.490 \text{ m}^3 \div 20 \text{ m}^3/\text{h} =$
= 8.475 horas
- . Custo total: $8.475 \text{ h} \times \text{Cz\$ } 1.800,00/\text{h} = \text{Cz\$ } 15.255.000,00$
- . Reserva lavrável: 101.286 t
- . Custo por tonelada: $\text{Cz\$ } 15.255.000,00 \div 101.286 \text{ t} =$
= Cz\$ 150,60/t

- Perfuração

- . Horas anuais perfuração minério: 816 h
- . Horas anuais perfuração fogachos: $20\% \times 816 \text{ h} = 163 \text{ h}$
- . Horas anuais de perfuração: 979 h

- . Custo anual de 1 martelo: $979 \text{ h} \times \text{Cz\$ } 60,00/\text{h} =$
 $= \text{Cz\$ } 58.740,00$
- . Custo anual de ar comprimido: $979 \text{ h} \times \text{Cz\$ } 345,00/\text{h} =$
 $= \text{Cz\$ } 337.755,00$
- . Custo por tonelada: $\text{Cz\$ } 396.495,00 \div 19.000 \text{ t} =$
 $= \text{Cz\$ } 20,87/\text{t}$

- Desmonte

- . Razão de carga: 154 g/t
- . Custo de explosivos: $0,15 \text{ kg/t} \times \text{Cz\$ } 63,07/\text{kg} =$
 $= \text{Cz\$ } 9,46/\text{t}$
- . Custo dos acessórios: $\text{Cz\$ } 3,39/\text{t}$
- . Custo por tonelada: $\text{Cz\$ } 12,85/\text{t}$

- Carga do minério e estéril

- . Carga anual de minério e estéril: 38.600 m³
- . Capacidade efetiva do equipamento: 35 m³/h
- . Horas necessárias: $38.600 \text{ m}^3 \div 35 \text{ m}^3/\text{h} = 1.100 \text{ h}$
- . Consumo de combustível: 10 ℓ/h
- . Gastos com combustível: $10 \text{ ℓ/h} \times 1.100 \text{ h} \times \text{Cz\$ } 13,00 =$
 $= 143.000,00$
- . Gastos com lubrificantes: $20\% \times \text{Cz\$ } 143.000,00 =$
 $= \text{Cz\$ } 28.600,00$
- . Custo por tonelada: $\text{Cz\$ } 171.600,00 \div 19.000 \text{ t} =$
 $= \text{Cz\$ } 9,03/\text{t}$

- Transporte do minério e estéril

- . Volume anual transportado
 - Minério: 7.200 m³
 - Estéril: 31.400 m³
- . Distância de transporte
 - Minério: 600 m
 - Estéril: 2.000 m
- . Capacidade do caminhão: $6 \text{ m}^3 \times 80\% = 4,8 \text{ m}^3$
- . Distância anual percorrida:
 - Minério: $[(7.200 \text{ m}^3 \times 25\%) \div 4,8 \text{ m}^3] \times 1,2 \text{ km} =$
 $= 2.250 \text{ km}$
 - Estéril: $[(31.400 \text{ m}^3 \times 25\%) \div 4,8 \text{ m}^3] \times 4,0 \text{ km} =$
 $= 32.700 \text{ km}$

- . Gastos com combustível: $(34.950 \text{ km} \div 2,5 \text{ km/l}) \times$
 $\times \text{Cz\$ } 13,00 = \text{Cz\$ } 181.740,00$
- . Gastos com lubrificantes: $20\% \times \text{Cz\$ } 181.740,00 =$
 $= \text{Cz\$ } 36.348,00$
- . Custo por tonelada: $\text{Cz\$ } 218.088,00 \div 19.000 \text{ t} =$
 $= \text{Cz\$ } 11,49/\text{t}$

- Mão-de-Obra (Tabela anexa)

- . Custo anual de mão-de-obra (Lavra à céu aberto + 50% administração): $\text{Cz\$ } 170.100,00 \times 13 = \text{Cz\$ } 2.211.300,00$
- . Custo por tonelada: $\text{Cz\$ } 2.211.300,00 \div 19.000 \text{ t} =$
 $= \text{Cz\$ } 116,38/\text{t}$

ITEM	CUSTO (Cz\$/t lavr.)	CUSTO (Cz\$/t ben.)
Remoção do estéril	150,60	331,24
Perfuração	20,87	45,89
Desmonte	12,85	28,26
Carga do minério e estéril	9,03	19,86
Transporte do minério e estéril	11,49	25,24
Mão-de-obra	116,28	255,94
TOTAL	321,22	706,43

3.10.2 - Lavra Subterrânea

- Perfuração

- . Custo anual de 4 martelos: $4 \times 1.800 \text{ h} \times \text{Cz\$ } 60,00/\text{h} =$
 $= \text{Cz\$ } 432.000,00$
- . Custo anual de 2 martelos tipo "stoper": $2 \times 1.800 \text{ h} \times$
 $\times \text{Cz\$ } 65,80/\text{h} = \text{Cz\$ } 236.880,00$
- . Custo anual do ar comprimido: $1.800 \text{ h} \times \text{Cz\$ } 345,00/\text{h} =$
 $= \text{Cz\$ } 621.000,00$
- . Custo por tonelada: $\text{Cz\$ } 1.289.000,00 \div 19.000 \text{ t} =$
 $= \text{Cz\$ } 67,90/\text{t}$

- Desmonte

- . Razão de carga: $3,0 \text{ kg/m}^3 = 1,15 \text{ kg/t}$
- . Custo do explosivo: $1,15 \text{ kg/t} \times \text{Cz\$ } 63,07/\text{kg} = \text{Cz\$ } 72,53/\text{t}$

- . Custo dos acessórios: Cz\$ 24,80/t
- . Custo por tonelada: Cz\$ 97,33/t

- Içamento

- . Custo anual do guincho: Cz\$ 880.000,00
- . Custo por tonelada: Cz\$ 880.000,00 ÷ 19.000 t = Cz\$ 46,32

- Transporte em superfície

- . Volume anual transportado: 7.200 m³
- . Distância de transporte: 600 m
- . Capacidade do caminhão: 6 m³ x 80% = 4,8 m³
- . Distância anual percorrida: [(7.200 m³ x 25%) ÷ 4,8 m³] x
1,2 km = 2.250 km
- . Gastos com combustível: (2.250 km ÷ 2,5 km/ℓ) x Cz\$ 13,00
= Cz\$ 11.700,00
- . Gastos com lubrificantes: 20% x Cz\$ 11.700,00 =
= Cz\$ 2.340,00
- . Custo por tonelada: Cz\$ 14.040,00 ÷ 19.000 t =
= Cz\$ 0,80/t

- Enchimento

- . Volume anual de material: 19.000 t x 0,6 = 11.400 t =
= 5.700 m³
- . Capacidade efetiva pã carregadeira: 35 m³/h
- . Horas anuais necessárias: 5.700 m³ ÷ 35 m³/h = 163 h
- . Consumo de combustível: 10 ℓ/h
- . Gastos com combustível: 10 ℓ/h x 163 h x Cz\$ 13,00 =
= Cz\$ 21.190,00
- . Gastos com lubrificantes: 20% x Cz\$ 21.190,00 =
= Cz\$ 4.238,00
- . Distância de transporte: 2.000 m
- . Capacidade do caminhão: 6 m³ x 80% = 4,8 m³
- . Distância anual percorrida: (5.700 m³ ÷ 4,8 m³) x 4,0 km
= 4.750 km
- . Gastos com combustível: (4.750 km ÷ 2,5 km/ℓ) x Cz\$ 13,00
= Cz\$ 24.700,00
- . Gastos com lubrificantes: 20% x Cz\$ 24.700,00 =
= Cz\$ 4.940,00
- . Custo por tonelada: Cz\$ 55.068,00 ÷ 19.000 t = Cz\$ 2,90/t

3.10.6 - Beneficiamento

- Energia Elétrica

. Custo anual de demanda: 254 kva x 12 x Cz\$ 328,00 =
= Cz\$ 999.744,00

. Custo anual de consumo : $\frac{254}{1.000} \times 0,85 \times 4.800 \text{ h} \times$
 $\times \text{Cz\$ } 720,00 = \text{Cz\$ } 746.150,00$

. Custo por tonelada: Cz\$ 1.745.894,00 ÷ 19.000 t =
= Cz\$ 91,90/t

- Reagentes para Flotação

. Custo anual do coletor: 300 g/t x 8.640 t x Cz\$ 25,00/kg=
= Cz\$ 64.800,00

. Custo anual do depressor: 200 g/t x 8.640 t x Cz\$ 13,00/
/kg = Cz\$ 22.464,00

. Custo anual do modulador de pH: 600 g/t x 8.640 t x
 $\times \text{Cz\$ } 12,00/\text{kg} =$
= Cz\$ 62.208,00

. Custo por tonelada: Cz\$ 149.472,00 ÷ 19.000 t = Cz\$ 7,87/t

- Peças e materiais de desgaste

. Custo anual (5% dos investimentos em equipamentos): 5% x
 $\times \text{Cz\$ } 18.547.000,00 = \text{Cz\$ } 927.350,00$

. Custo por tonelada: Cz\$ 927.350,00 ÷ 19.000 t = Cz\$ 48,81/t

- Combustíveis e lubrificantes

. Custo anual do carvão para secagem: 0,2 t/h x 3.600 h x
 $\times \text{Cz\$ } 1.200,00/\text{t} =$
= Cz\$ 864.000,00

. Custo anual dos lubrificantes: 0,1 kg/t x 8.640 t x
 $\times \text{Cz\$ } 60,00 =$
= Cz\$ 51.840,00

. Custo por tonelada: Cz\$ 915.840,00 ÷ 19.000 t =
= Cz\$ 48,20/t

- Manutenção

. Custo anual (3% dos investimentos em equipamentos): 3% x
 $\times \text{Cz\$ } 18.547.000,00 = \text{Cz\$ } 556.410,00$

- . Custo anual (1% dos investimentos nas construções): $1\% \times \text{Cz\$ } 10.091.000,00 = \text{Cz\$ } 100.910,00$
- . Custo por tonelada: $\text{Cz\$ } 657.320,00 \div 19.000 \text{ t} = \text{Cz\$ } 34,59/\text{t}$

- Seguros

- . Custo anual (0,3% dos investimentos em máquinas e equipamentos): $0,3\% \times \text{Cz\$ } 18.547.000,00 = \text{Cz\$ } 55.641,00$
- . Custo anual (0,2% dos investimentos nas construções): $0,2\% \times \text{Cz\$ } 10.091.000,00 = \text{Cz\$ } 20.182,00$
- . Custo por tonelada: $\text{Cz\$ } 75.823,00 \div 19.000 \text{ t} = \text{Cz\$ } 3,99/\text{t}$

- Mão-de-Obra (Tabela anexa)

- . Custo anual da mão-de-obra (Beneficiamento + 50% administração): $\text{Cz\$ } 360.900,00 \times 13 = \text{Cz\$ } 4.691.700,00$
- . Custo por tonelada: $\text{Cz\$ } 4.691.700,00 \div 19.000 \text{ t} = \text{Cz\$ } 246,93/\text{t}$

ITEM	CUSTO (Cz\$/t lavr.)	CUSTO (Cz\$/t ben.)
Energia elétrica	91,90	202,07
Reagentes para flotação	7,87	17,30
Peças e materiais de desgaste	48,81	107,33
Combustíveis e lubrificantes	48,20	106,00
Manutenção	34,59	76,09
Seguros	3,99	8,76
Mão-de-obra	246,93	543,02
TOTAL	482,29	1.060,57

3.11 - Custos Administrativos

Os custos administrativos serão representados por 5% do preço de venda, sendo suficientes para cobrir as despesas de mão-de-obra indireta, encargos, subsídios, materiais diversos, etc.

O custo anual será:

- . Preço médio do concentrado: Cz\$ 8.053,63/t
- . 5% x Cz\$ 8.053,63 = Cz\$ 402,68/t
- . Custo por tonelada lavrada: Cz\$ 183,11
- . Custo por tonelada beneficiada: Cz\$ 402,68

3.12 - Custos de Comercialização

Nos custos de comercialização estão imbutidas as despesas de vendas e comissões, e são estimadas em 5% do faturamento bruto anual.

O custo anual será:

- . Valor de comercialização produto grau ácido: Cz\$ 8.496,11/t
- . Valor de comercialização produto grau metalúrgico:
Cz\$ 7.699,64/t
- . Produção de produto grau ácido: 3.840 t/ano
- . Produção de produto grau metalúrgico: 4.800 t/ano
- . Faturamento bruto anual: $3.840 \text{ t} \times \text{Cz\$ } 8.496,11/\text{t} + 4.800 \text{ t} \times \text{Cz\$ } 7.699,64/\text{t} = \text{Cz\$ } 69.583.334,00$
- . Custo anual: $5\% \times \text{Cz\$ } 69.583.334,00 = \text{Cz\$ } 3.479.167,00$
- . Custo por tonelada lavrada: Cz\$ 183,11
- . Custo por tonelada beneficiada: Cz\$ 402,68

3.13 - Depreciações e Amortizações

- Depreciações

DESCRIÇÃO	VALOR DA AQUISIÇÃO	ÍNDICE (%)	COTA ANUAL DE DEPRECIÇÃO
- Bens q/depreciam em 5 anos . Veículos	Cz\$ 7.490.000,00	20	Cz\$ 1.498.000,00
SUBTOTAL	Cz\$ 7.490.000,00		Cz\$ 1.498.000,00
- Bens q/depreciam em 10 anos . Máquinas e equip. mina . Máquinas e equip. usina	Cz\$ 27.460.000,00 Cz\$ 18.547.000,00	10 10	Cz\$ 2.746.000,00 Cz\$ 1.854.700,00
SUBTOTAL	Cz\$ 46.007.000,00		Cz\$ 4.600.700,00
- Bens q/depreciam em 20 anos . Infra-estrutura . Barragem de rejeitos	Cz\$ 17.923.000,00 Cz\$ 4.800.000,00	5 5	Cz\$ 896.150,00 Cz\$ 240.000,00
SUBTOTAL	Cz\$ 22.723.000,00		Cz\$ 1.136.150,00
TOTAL ANUAL	Cz\$ 76.220.000,00		Cz\$ 7.234.850,00

- Amortizações

DESCRIÇÃO	VALOR	ÍNDICE (%)	COTA ANUAL DE AMORTIZAÇÃO
- Investimentos pré-operacionais	Cz\$ 34.122.913,00	5	Cz\$ 1.706.146,00
TOTAL ANUAL	Cz\$ 34.122.913,00		Cz\$ 1.706.146,00

- Custo por tonelada lavrada: Cz\$ 471,00/t

- Custo por tonelada beneficiada: Cz\$ 1.035,00/t

3.14 - Cronograma Financeiro do Projeto

(Cz\$)

ITEM	ANO	-01	00	01	02	03	04	05	TOTAL
- Investimentos pré-operacionais		30.306.193,00	3.816.720,00						34.122.913,00
- Investimentos lavra à céu aberto		10.782.000,00	144.000,00						10.926.000,00
- Investimentos lavra subterrânea						20.390.000,00	592.800,00	4.719.600,00	25.702.400,00
- Investimentos beneficiamento		20.927.000,00	2.420.000,00						23.347.000,00
- Infra-estrutura		21.171.000,00					842.000,00		22.013.000,00
TOTAL		83.186.193,00	6.380.720,00			20.390.000,00	1.434.800,00	4.719.600,00	116.111.313,00

3.15 - Viabilidade Econômica

3.15.1 - Metodologia

Para análise da viabilidade econômica do empreendimento se fará uso do fluxo de caixa descontado, estando determinados "a priori" a escala de produção, os investimentos e custos operacionais do processo. O método localiza no tempo todos os recebimentos e desembolsos ano a ano, e abrange o período de vida útil do projeto, acrescido do período de implantação.

A data base da avaliação, ou seja, aquela no qual foram descontados todos os saldos de caixa, coincide com o período -01, início de implantação do empreendimento.

Estando concluída a elaboração do fluxo, procedeu-se a análise da viabilidade pelo cálculo do Valor Presente Líquido e Taxa Interna de Retorno.

Para o VPL, os saldos de caixa foram descapitalizados, ano a ano, através da seguinte expressão:

$$VPL = \sum_{j=0}^n \frac{F_j}{(1+i)^j}$$

onde:

VPL = Valor Presente Líquido

n = Número do períodos envolvidos

Fj = Cada um dos diversos valores envolvidos no Fluxo de Caixa e que ocorrem em n

i = Taxa de Mínima Atratividade ou Taxa de Desconto

Concluído o cálculo do VPL, verifica-se a viabilidade do empreendimento, observando-se o valor encontrado, da seguinte maneira:

- . $\Sigma VPL > 0$: neste caso, o projeto atende à expectativa desejada, ou seja, remunera o investimento e atende um lucro mínimo anual, segundo a taxa de mínima atratividade projetada.
- . $\Sigma VPL < 0$: o Valor Presente Líquido negativo, significa não ter o projeto atendido o objetivo de uma lucratividade mínima maior que a taxa de mínima atratividade projetada.
- . $\Sigma VPL = 0$: sendo o Valor Presente Líquido igual a zero, o projeto atende apenas ao lucro mínimo e a taxa de mínima atratividade passa a ser a taxa interna de retorno do projeto, ou seja, aquela para a qual a somatória das receitas se torna igual ao somatório dos dispêndios.

3.15.2 - Taxa de Mínima Atratividade

Adotou-se como Taxa de Mínima Atratividade o valor de 15%, atualmente utilizada pela MINEROPAR como aquela mínima para remuneração de qualquer capital a ser investido.

4 - RESULTADOS OBTIDOS

Para efeito de análise de sensibilidade do projeto no que diz respeito às inversões prévias já efetuadas pela Mineropar, com relação à taxa de royalties a ser obtida pelo repasse do empreendimento à iniciativa privada, uma série de simulações foram realizadas, onde se procurou atingir o ponto ótimo, entre a forma de repasse e a sensibilidade do projeto.

Desta forma, as análises foram feitas desde o caso, onde a totalidade das inversões já realizadas sejam pagas no primeiro ano de implantação do projeto, à aquela no qual estas inversões deixariam de ser consideradas.

Utilizando-se de uma linha de financiamento praticada pelo BADEP, onde, para uma contrapartida de 30%, tem-se uma taxa de juros de 10% a.a., carência de 1 ano e a mortização em 4 anos, a seguinte análise pode ser feita:

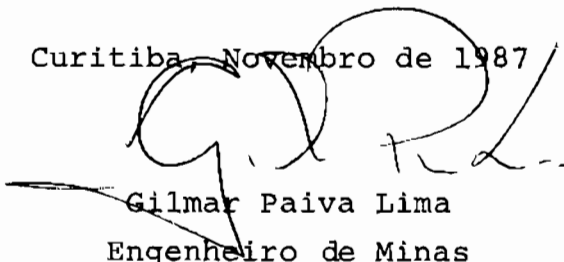
- O projeto em si não apresenta uma rentabilidade elevada, em que pese o alto valor do lucro bruto, devido às elevadas inversões necessárias à sua implantação.

- Ao analisarmos as hipóteses onde as inversões prévias são desconsideradas em um dos casos e pagas integralmente e durante a implantação no outro, observamos que a Taxa Interna de Projeto se eleva de 37,31% para 74,19%, com royalties de 5%, numa variação de 99%, considerada significativa.

- Nos casos em que as inversões prévias são pagas em 3, 4 e 5 vezes a partir do primeiro ano de operação, podemos observar que a variação da Taxa Interna do Projeto, varia de 44%, 35% e 30%, respectivamente, em relação ao caso onde estas inversões são desconsideradas. Assim, pode-se verificar que a rentabilidade do projeto pouco varia quando as inversões prévias são pagas em 3, 4 ou 5 anos, mas sofre sensível variação quanto estas mesmas inversões ocorrem nos anos de implantação e pré-operação.

Assim, pode-se concluir que, para que o projeto apresente uma rentabilidade apenas razoável, as inversões prévias devem ser pagas em no mínimo 3 parcelas anuais, a partir da plena operação do empreendimento, e a taxa de royalties a ser obtida esteja em torno de 5% de receita operacional bruta do empreendimento.

Curitiba, Novembro de 1987



Gilmar Paiva Lima
Engenheiro de Minas

SALÁRIOS E ENCARGOS

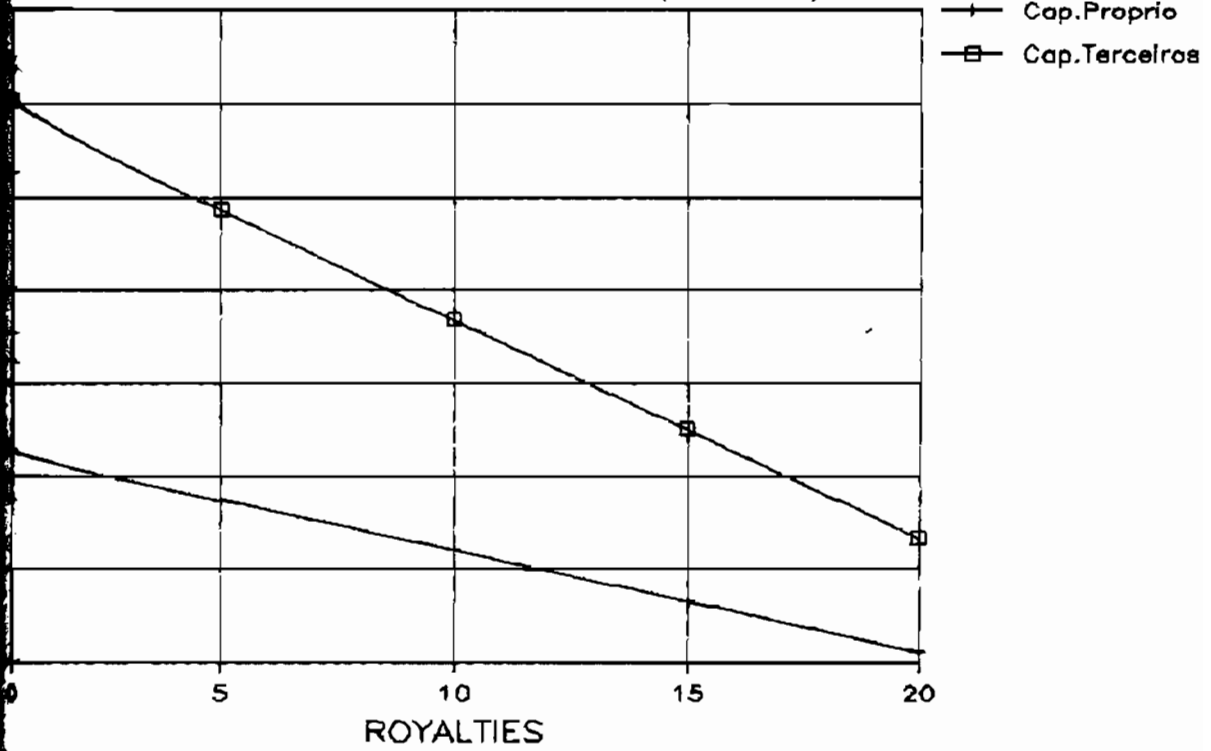
(Cz\$)

DESCRIÇÃO	Nº EMP.	SALÁRIO MENSAL	SUBTOTAL	ENCARGOS (80%)	TOTAL MENSAL
ADMINISTRAÇÃO					
. Engº de Minas	01	50.000,00	50.000,00	40.000,00	90.000,00
. Chefe de escrit.	01	20.000,00	20.000,00	16.000,00	36.000,00
. Aux. escritório	02	6.000,00	12.000,00	9.600,00	21.600,00
. Almozarife	01	7.000,00	7.000,00	5.600,00	12.600,00
. Motorista	01	6.000,00	6.000,00	4.800,00	10.800,00
. Vigia	03	4.000,00	12.000,00	9.600,00	21.600,00
SUBTOTAL	09		107.000,00	85.600,00	192.600,00
LAVRA À CÉU ABERTO					
. Operador máquina	02	6.000,00	12.000,00	9.600,00	21.600,00
. Motorista	02	6.000,00	12.000,00	9.600,00	21.600,00
. Op. perfuratriz	01	5.000,00	5.000,00	4.000,00	9.000,00
. Aux. perfuração	01	4.000,00	4.000,00	3.200,00	7.200,00
. Braçais	02	4.000,00	8.000,00	6.400,00	14.400,00
SUBTOTAL	08		41.000,00	32.800,00	73.800,00
LAVRA SUBTERRÂNEA					
. Encarregado	01	15.000,00	15.000,00	12.000,00	27.000,00
. Op. guincho	01	5.000,00	5.000,00	4.000,00	9.000,00
. Cabo de fogo	01	6.000,00	6.000,00	4.800,00	10.800,00
. Auxiliar	01	4.000,00	4.000,00	3.200,00	7.200,00
. Op. perfuratriz	04	6.000,00	24.000,00	19.200,00	43.200,00
. Aux. perfuração	04	5.000,00	20.000,00	16.000,00	36.000,00
. Operador silo	01	5.000,00	5.000,00	4.000,00	9.000,00
. Operador bomba	01	5.000,00	5.000,00	4.000,00	9.000,00
. Op. compressor	01	4.000,00	4.000,00	3.200,00	7.200,00
. Vagoneteiro	36	4.000,00	14.400,00	115.200,00	259.200,00
. Motorista	01	6.000,00	6.000,00	4.800,00	10.800,00
SUBTOTAL	52		238.000,00	190.400,00	428.400,00

BENEFICIAMENTO					
. Encarregado	01	15.000,00	15.000,00	12.000,00	27.000,00
. Op. britagem	02	6.000,00	12.000,00	9.600,00	21.600,00
. Op. pilhas	02	4.000,00	8.000,00	6.400,00	14.400,00
. Op. moinho, clas. e ciclone	02	6.000,00	12.000,00	9.600,00	21.600,00
. Op. flotação	04	6.000,00	24.000,00	19.200,00	43.200,00
. Op. secador	02	6.000,00	12.000,00	9.600,00	21.600,00
. Op. expedição	01	6.000,00	6.000,00	4.800,00	10.800,00
. Op. briquetador	02	6.000,00	12.000,00	9.600,00	21.600,00
. Mecânico	01	7.000,00	7.000,00	5.600,00	12.600,00
. Eletricista	01	7.000,00	7.000,00	5.600,00	12.600,00
. Torneiro, soldad.	01	7.000,00	7.000,00	5.600,00	12.600,00
. Auxiliar geral	01	4.000,00	4.000,00	3.200,00	7.200,00
. Serventes	06	3.500,00	21.000,00	16.800,00	37.800,00
SUBTOTAL	26		147.000,00	117.600,00	364.600,00

PROJETO FLUORITA VOLTA GRANDE

Inversoes Previas (Ano -1)

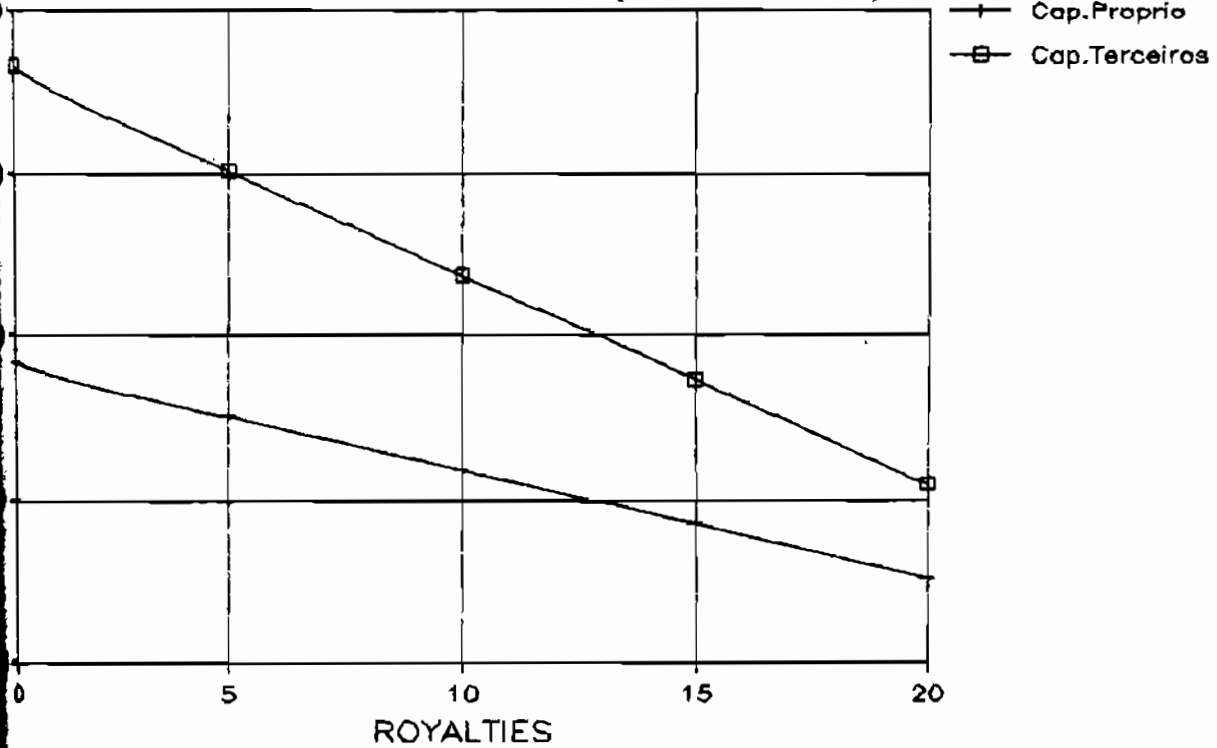


ROYALTIES	TIR
[%]	[%]
5.0	21.67
10.0	19.02
15.0	16.28

ROYALTIES	TIR
[%]	[%]
5.0	37.31
10.0	31.39
15.0	25.54

PROJETO FLUORITA VOLTA GRANDE

Inversaes Previas (Anos 0,1 e 2)

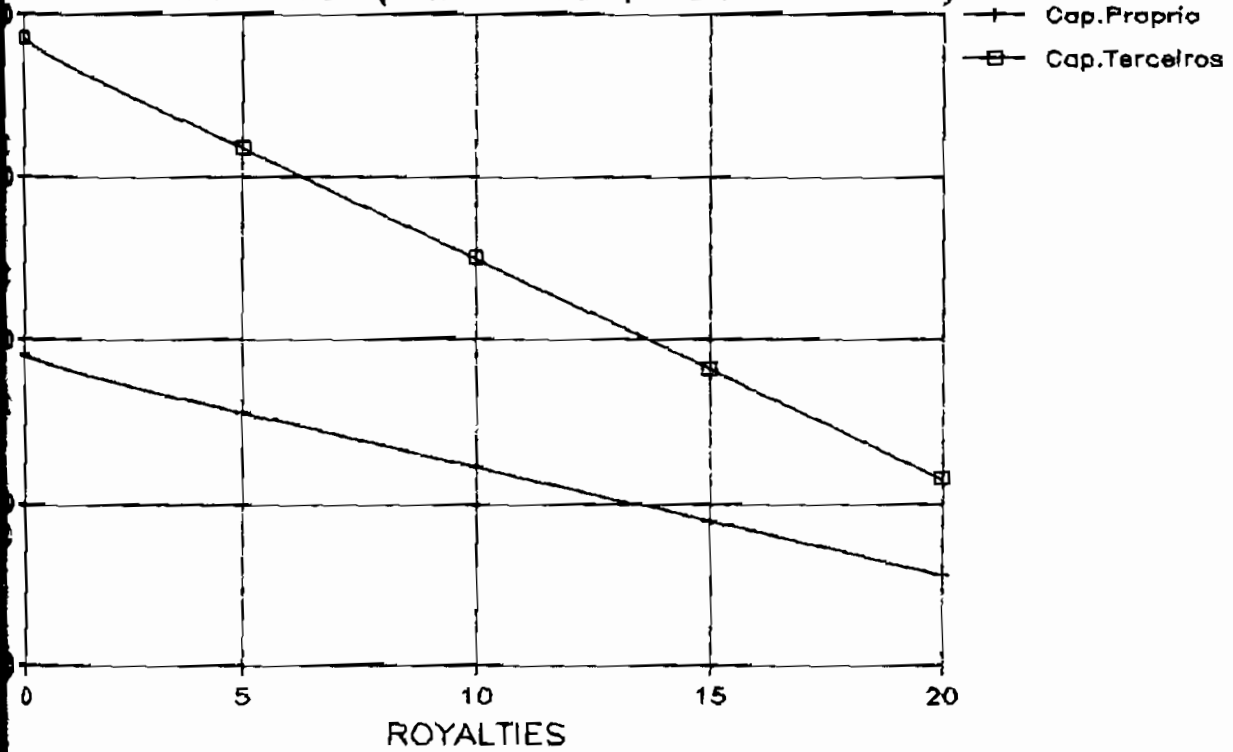


ROYALTIES	TIR
[%]	[%]
5.0	25.10
10.0	21.84
15.0	18.52

ROYALTIES	TIR
[%]	[%]
5.0	40.23
10.0	33.78
15.0	27.39

PROJETO FLUORITA VOLTA GRANDE

Inv. Prev. (Anos 0=20%, 1=30% e 2=50%)

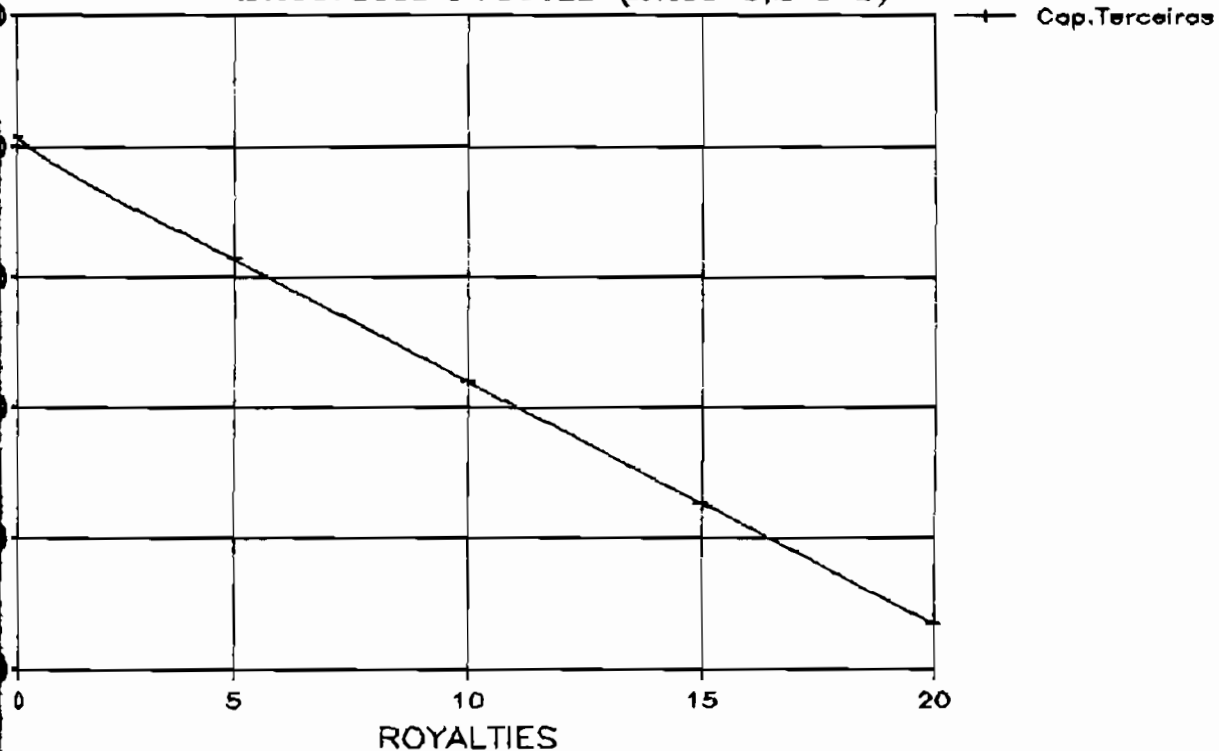


ROYALTIES	TIR
[%]	[%]
5.0	25.64
10.0	22.29
15.0	18.88

ROYALTIES	TIR
[%]	[%]
5.0	41.92
10.0	34.77
15.0	28.44

PROJETO FLUORITA VOLTA GRANDE

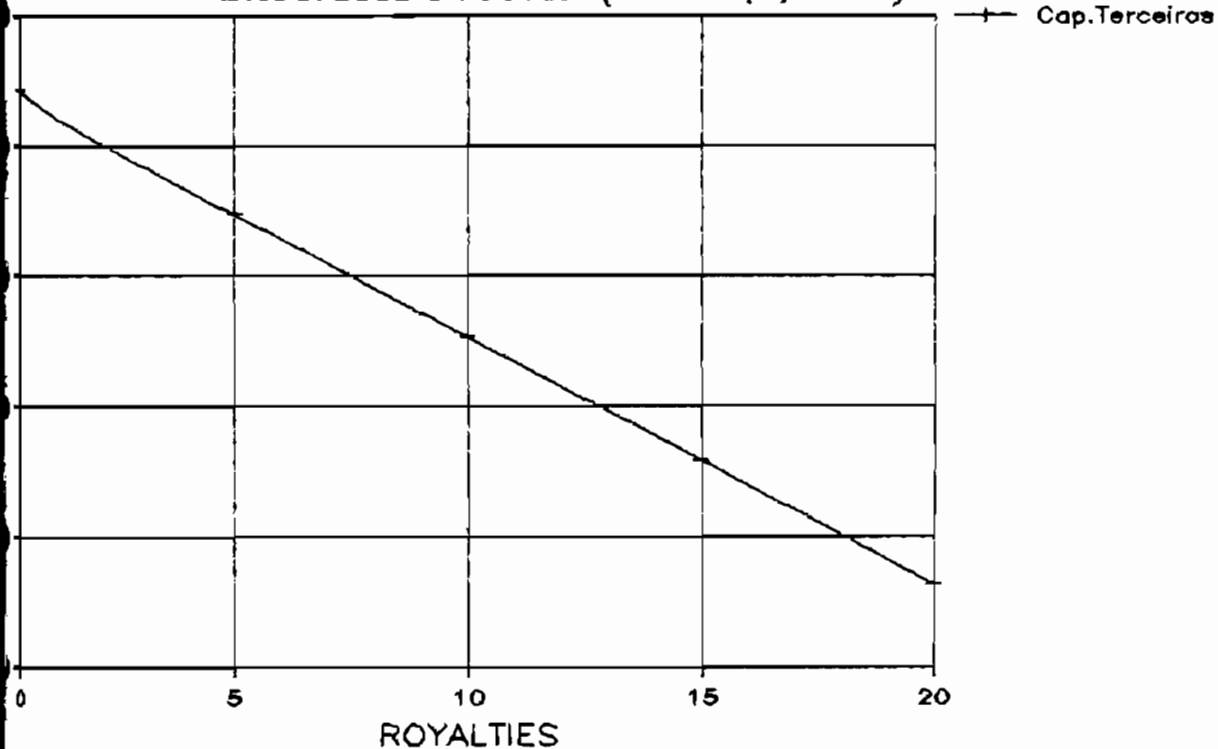
Inversoes Previas (Anos 1,2 e 3)



ROYALTIES	TIR
[%]	[%]
5.0	51.54
10.0	41.93
15.0	32.87

PROJETO FLUORITA VOLTA GRANDE

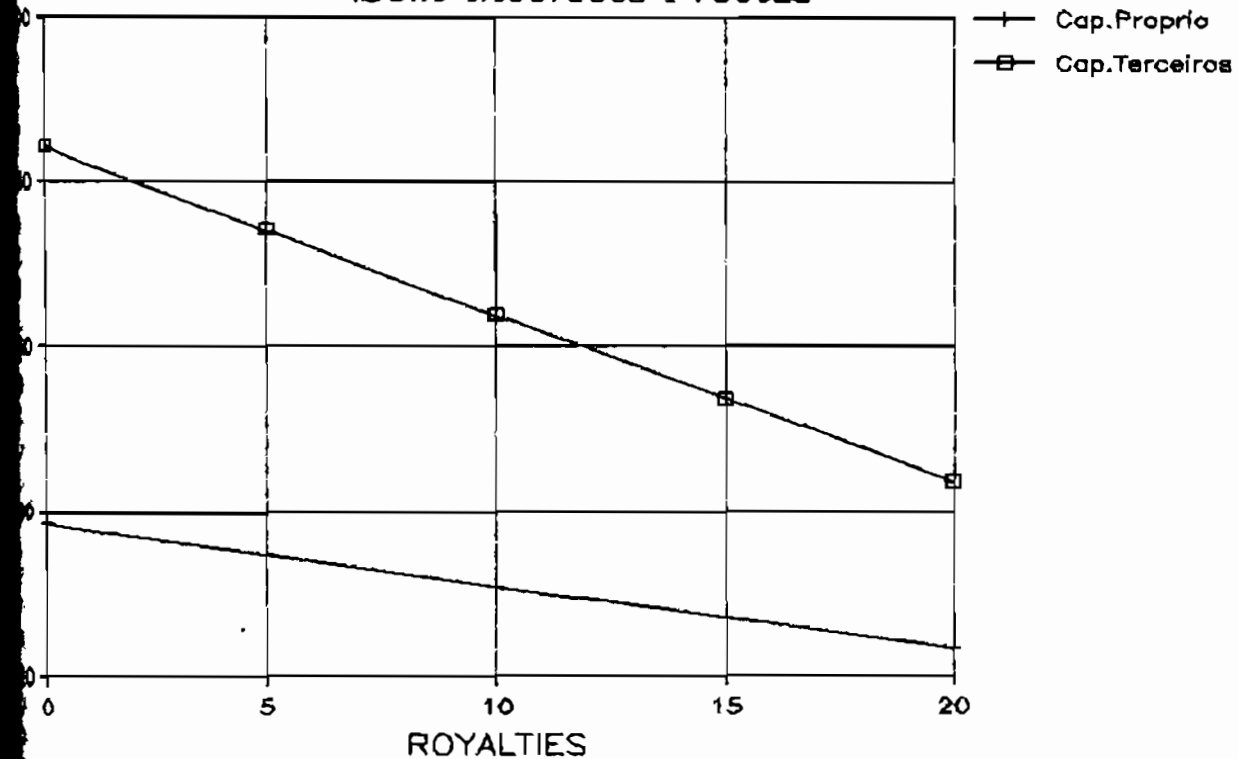
Inversoes Previas (Anos 1,2,3 e 4)



ROYALTIES	TIR
[%]	[%]
5.0	54.91
10.0	45.24
15.0	35.95

PROJETO FLUORITA VOLTA GRANDE

Sem inversoes Previas



ROYALTIES	TIR
[%]	[%]
5.0	34,60
10.0	30,85
15.0	27,00

ROYALTIES	TIR
[%]	[%]
5.0	74,19
10.0	63,98
15.0	53,76

Capital Próprio
Inv. Prévias Ano -1
Royalties 5%

SAIS DO PARANA S/A - MINEROPAR
 DE CAIXA DO PROJETO : FLUGRITA VOLTA GRANDE

DATA : 01/01/80
 FLUXO.PRG

ANO	-1	0	1	2	3	4	5	6	7
RECEITA	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
DEBITO	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
ROYALTIES	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
RECEITO BRUTO	0.00	20828.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
DIVERSOS	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
DEPRECIACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
EXHAUSTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EMPRESTIMO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IMPOSTO TRIBUTAVEL	0.00	10772.56	20878.26	20878.26	20878.26	26839.26	26724.26	16275.76	16275.76
IMPOSTO DE RENDA	0.00	0.00	3770.40	10107.39	10107.39	10107.39	9393.74	9353.49	5696.52
RECEITO LIQUIDO	0.00	10772.56	25107.86	18770.87	18770.87	16731.87	17330.52	6922.27	10579.24
DEPRECIACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
EXHAUSTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OPERACAO	0.00	10745.56	33719.86	27382.87	27382.87	27382.87	20096.52	10160.27	21017.24
CAPITAL PROPRIO	87866.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DE CAIXA DO PROJETO	0.00	10745.56	33719.86	27382.87	27382.87	27382.87	20096.52	10160.27	21017.24
CAP. GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VAL. RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
EMPRESTIMOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PREVIAS	30306.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DE CAIXA DO PROJETO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
DIVERSOS	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
CAPITAL DE GIRO	4600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEPRECIACOES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DE CAIXA	-87866.00	12365.56	33719.86	27382.87	6992.87	19206.87	23376.52	10160.27	21017.24

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MINEROPAR S/A - MINEROPAR
 DE CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 01/01/80
 FLUXO.PRG

MO	8	9	10	11	12	13	14	15	16
RENTA	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
RENTA	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
DEBITOS	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
RENTA BRUTO	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85
DEBITOS	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09
AMORTIZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
EXAUSTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EMPRESTIMO	0.00	0.00	580.11	0.00	0.00	0.00	0.00	0.00	0.00
TRIBUTAVEL	16275.76	16275.76	18757.65	19975.76	19975.76	19975.76	17939.76	18408.76	18408.76
RENTA DE RENDA	5696.52	5696.52	5696.52	6565.18	6991.52	6991.52	6991.52	6278.92	6443.07
LIQUIDO	10579.24	10579.24	13061.13	13410.58	12984.24	12984.24	10948.24	12129.84	11965.69
DEPRECIACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
EXAUSTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OPERACAO	21817.24	21817.24	21237.13	20948.58	20522.24	20522.24	20522.24	21234.84	21070.69
PROPRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PROJETO	21817.24	21817.24	21237.13	20948.58	20522.24	20522.24	20522.24	21234.84	21070.69
DEBITO DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEBITO RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
DEBITOS	0.00	5801.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PREVIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PROJETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEBITOS	0.00	3068.70	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
DEBITO DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEBITOS	0.00	0.00	5801.06	0.00	0.00	0.00	0.00	0.00	0.00
DEBITO DE CAIXA	21817.24	0.00	15436.07	20948.58	20522.24	2171.24	13781.24	21234.84	21070.69

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SAIS DO PARANA S/A - MINEROPAR
 DE CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 01/01/80
 FLUXO.PRG

MO	17	18	19
RECEITA	69583.00	69583.00	34792.00
DEBITO	35533.00	35533.00	17766.00
VALORES	3479.15	3479.15	1739.60
RECEITA BRUTA	30570.85	30570.85	15286.40
DEBITOS	3057.09	3057.09	1528.64
DEPRECIACAO	9105.00	9105.00	9105.00
EXAUSTAO	0.00	0.00	0.00
PRESTIMO	0.03	0.00	0.00
RECEITA TRIBUTAVEL	18408.76	18408.76	4652.76
IMPOSTO DE RENDA	6443.07	6443.07	8071.54
RECEITA LIQUIDA	11965.69	11965.69	-3418.78
DEPRECIACAO	9105.00	9105.00	9105.00
EXAUSTAO	0.00	0.00	0.00
REVENHA	21070.69	21070.69	5686.22
CAPITAL PROPRIO	0.00	0.00	0.00
DEBITO PROJETO	21070.69	21070.69	5686.22
DEBITO CAP. GIRO	0.00	0.00	4680.00
DEBITO INCL. RESIDUAL	0.00	0.00	749.00
DEBITO PRESTIMOS	0.00	0.00	0.00
DEBITO PREVIAS	0.00	0.00	0.00
DEBITO PROJETO	0.00	0.00	0.00
DEBITO DIVIDENDOS	0.00	0.00	0.00
DEBITO CAPITAL DE GIRO	0.00	0.00	0.00
DEBITO DEPRECIACOES	0.00	0.00	0.00
DEBITO DE CAIXA	21070.69	21070.69	11115.22

MINIMA ATRATIVIDADE =) 15.00
 LIQUIDO PRESENTE =) 30861.98
 INTERNA DE RETORNO =) 21.67

Capital Próprio
Inv. Prévias Ano -1
Royalties 10%

BO PARANA S/A - MINEROPAR
CAIXA DO PROJETO : FLUCRITA VOLTA GRANDE

DATA : 01/01/80
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
OUTO	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
RENTES	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
AMORTIZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRESTIMO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAVEL	0.00	9206.92	25747.83	25747.83	25747.83	23708.83	23593.83	13144.53	13144.53
DE RENDA	0.00	0.00	3222.42	9011.46	9011.46	9011.46	8297.81	8257.56	4600.59
RENTAVEL	0.00	9206.92	22524.61	16735.57	16735.57	14696.57	15295.22	4886.97	8543.94
RENTAVEL	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	0.00	17179.92	31136.61	25347.57	25347.57	25347.57	26061.22	16124.97	19781.94
PROPRIO	87866.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PROPRIO	0.00	17179.92	31136.61	25347.57	25347.57	25347.57	26061.22	16124.97	19781.94
DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	30306.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
RENTAS	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
DE GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAIXA	-87866.00	10799.92	31136.61	25347.57	4957.57	17171.57	21341.22	16124.97	19781.94

DO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 01/01/80
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
OUTO	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
OSOS	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
UTILIZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
JUSTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRESTIMO	0.00	0.00	783.64	0.00	0.00	0.00	0.00	0.00	0.00
INUTAVEL	13144.53	13144.53	15422.89	16844.53	16844.53	16844.53	14808.53	15277.53	15277.53
DE RENDA	4600.59	4600.59	4600.59	5398.01	5895.59	5895.59	5895.59	5182.99	5347.14
QUIDO	8543.94	8543.94	10222.30	11446.52	10948.94	10948.94	8912.94	10094.54	9930.39
PRECIACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
JUSTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERCACAO	19781.94	19781.94	18998.30	18984.52	18486.94	18486.94	18486.94	19199.54	19035.39
PROPRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUETO	19781.94	19781.94	18998.30	18984.52	18486.94	18486.94	18486.94	19199.54	19035.39
P. GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
OSOS	0.00	7836.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EVIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OSOS	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OSOS	0.00	0.00	7836.36	0.00	0.00	0.00	0.00	0.00	0.00
CAIXA	19781.94	0.00	11161.94	18984.52	18486.94	135.94	11745.94	19199.54	19035.39

BO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 01/01/80
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	6958.30	6958.30	3479.20
OUTO	27091.70	27091.70	13546.80
OSOS	2709.17	2709.17	1354.68
ORTIZACAO	9105.00	9105.00	9105.00
USTAO	0.00	0.00	0.00
RESTIMO	0.00	0.00	0.00
ONUTAVEL	15277.53	15277.53	3087.12
DE NENHA	5347.14	5347.14	6427.63
QUIDO	9930.39	9930.39	-3340.51
PECTACAO	9105.00	9105.00	9105.00
USTAO	0.00	0.00	0.00
ERACAO	19035.39	19035.39	5764.49
PROPRIO	0.00	0.00	0.00
OLETO	19035.39	19035.39	5764.49
P. GIRO	0.00	0.00	4680.00
RESIDUAL	0.00	0.00	749.00
RES	0.00	0.00	0.00
ENIAS	0.00	0.00	0.00
OLETO	0.00	0.00	0.00
RES	0.00	0.00	0.00
DE GIRO	0.00	0.00	0.00
RES	0.00	0.00	0.00
CAIXA	19035.39	19035.39	11193.49

QUINA ATRATIVIDADE =) 15.00
 LIQUIDO PRESENTE =) 18280.76
 INTERNA DE RETORNO =) 19.02

Capital Próprio
Inv. Prévias Ano -1
Royalties 15%

DO PARANA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 01/01/80
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
ES	0.00	5218.80	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
OUTO	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55
DEBOS	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26
UTILIZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
INSTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRESTING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INUTAVEL	0.00	7641.28	22615.79	22615.79	22615.79	20576.79	20461.79	10013.29	10013.29
DE RENDA	0.00	0.00	2674.45	7915.53	7915.53	7915.53	7201.88	7161.63	3504.65
EMUDO	0.00	7641.28	19941.34	14700.26	14700.26	12661.26	13259.91	2851.66	6508.64
EMECIACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
INSTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENACAO	0.00	15614.28	28553.34	23312.26	23312.26	23312.26	24025.91	14089.66	17746.64
PROPRIO	87866.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OBJETO	0.00	15614.28	28553.34	23312.26	23312.26	23312.26	24025.91	14089.66	17746.64
DE BIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
DEBOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PREVIAS	30306.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OBJETO	52800.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
DEBOS	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
DE BIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEBOS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DE CAIXA	-87866.00	9234.28	28553.34	23312.26	2922.26	15136.26	19305.91	14089.66	17746.64

DO PARANA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 01/01/80
FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
RES	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
OUTO	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
RESOS	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
UTILIZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
AMUSTAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRESTIMO	0.00	0.00	987.17	0.00	0.00	0.00	189.94	0.00	0.00
INVENTAVEL	10013.29	10013.29	12008.12	13713.29	13713.29	13713.29	11487.35	12146.29	12146.29
DE RENDA	3504.65	3504.65	3504.65	4230.84	4799.65	4799.65	4799.65	4020.57	4251.20
LIQUIDO	6508.64	6508.64	8583.47	9482.45	8913.64	8913.64	6687.70	8125.72	7895.09
PRECIACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
AMUSTAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PERICAO	17746.64	17746.64	16759.47	17020.45	16451.64	16451.64	16261.70	17230.72	17000.09
PROPRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OLETO	17746.64	17746.64	16759.47	17020.45	16451.64	16451.64	16261.70	17230.72	17000.09
P. GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
INDOS	0.00	9871.66	0.00	0.00	0.00	1899.36	0.00	0.00	0.00
REVIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OLETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INDOS	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INDOS	0.00	0.00	9871.66	0.00	0.00	0.00	1899.36	0.00	0.00
DE CAIXA	17746.64	0.00	6887.81	17020.45	16451.64	0.00	7621.34	17230.72	17000.09

DO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 01/01/80
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
RES	10437.45	10437.45	5218.80
QUITO	23612.55	23612.55	11807.20
INGOS	2361.26	2361.26	1180.72
UTILIZACAO	9105.00	9105.00	9105.00
JUSTAO	0.00	0.00	0.00
VESTIMO	0.00	0.00	0.00
INUTAVEL	12146.29	12146.29	1521.48
RE RENDA	4251.20	4251.20	4783.72
QUIDO	7895.09	7895.09	-3262.24
RETIACAO	9105.00	9105.00	9105.00
JUSTAO	0.00	0.00	0.00
PERACAO	17000.09	17000.09	5842.76
PROPRIO	0.00	0.00	0.00
OLETO	17000.09	17000.09	5842.76
DE GIRO	0.00	0.00	4680.00
RESIDUAL	0.00	0.00	749.00
INDOS	0.00	0.00	0.00
DIAS	0.00	0.00	0.00
OLETO	0.00	0.00	0.00
RES	0.00	0.00	0.00
DE GIRO	0.00	0.00	0.00
RES	0.00	0.00	0.00
CAIXA	17000.09	17000.09	11271.76

UMA ATRATIVIDADE = } 15.00
 QUIDO PRESENTE = } 5718.27
 SEMA DE RETORNO = } 16.28

Capital Terceiros
 Inversões Prévias Ano -1
 Royalties 5%

PARAMA S/A - MINEROPAR
 NO PROJETO : FLUXO RITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	0.00	20828.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
IND	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	0.00	6150.62	6150.62	4825.34	3367.53	2836.12	1081.18	850.16	594.09
DEL	0.00	4621.94	22727.64	24052.92	25510.73	24003.14	25643.08	15425.60	15681.67
IND	0.00	0.00	1617.68	7954.67	8418.52	8928.76	8401.10	8975.08	5398.96
	0.00	4621.94	21109.96	16098.25	17092.21	15074.38	17241.98	6450.52	10282.71
IND	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	12594.94	29721.96	24710.25	25704.21	25725.38	28007.98	17688.52	21520.71
IND	26359.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	12594.94	29721.96	24710.25	25704.21	25725.38	28007.98	17688.52	21520.71
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
	61506.20	0.00	0.00	0.00	10721.67	90.00	0.00	0.00	0.00
	30306.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	13252.79	14578.07	16035.88	17639.46	2310.21	2560.64	2816.70
	-26359.80	6214.94	16469.17	10132.18	0.00	0.00	20977.77	15127.88	18704.01

MINERA S/A - MINEROPAR
 DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85
	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09
MACO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	312.42	2.58	572.01	572.01	448.76	313.18	164.05	0.00	0.00
MEL	15963.34	16273.18	18765.75	19403.75	19527.00	19662.58	17775.71	18408.76	18408.76
BOA	5488.58	5587.17	5695.61	6568.01	6791.31	6834.45	6881.90	6221.50	6443.07
	10474.76	10686.01	13070.14	12835.74	12735.69	12828.13	10893.81	12187.26	11965.69
MACO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21712.76	21924.01	21246.14	20373.74	20273.69	20366.13	20467.81	21292.26	21070.69
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21712.76	21924.01	21246.14	20373.74	20273.69	20366.13	20467.81	21292.26	21070.69
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	5720.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3098.38	25.83	0.00	1232.52	1355.77	1491.35	1640.48	0.00	0.00
	18614.38	0.00	21246.14	19141.22	18917.92	523.78	12086.33	21292.26	21070.69

AMANA S/A - MINEROPAR
 DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	3479.15	3479.15	1739.60
	30570.85	30570.85	15286.40
	3057.09	3057.09	1528.64
INICIO	9105.00	9105.00	9105.00
	0.00	0.00	0.00
	0.00	0.00	0.00
PREZ.	18408.76	18408.76	4652.76
REDA	6443.07	6443.07	8071.54
	11965.69	11965.69	-3418.78
INICIO	9105.00	9105.00	9105.00
	0.00	0.00	0.00
	21070.69	21070.69	5686.22
	0.00	0.00	0.00
	21070.69	21070.69	5686.22
	0.00	0.00	4680.00
INICIAL	0.00	0.00	749.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	21070.69	21070.69	11115.22

ATIVIDADE = > 15.00
 PRESENTE = > 45195.88
 DE RETORNO = > 37.31

Capital Terceiros
 Inv. Prévias Ano -1
 Royalties 10%

PARAMA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
INICIAÇÃO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTUDO	0.00	6150.62	6150.62	4025.34	3367.53	3039.65	1508.59	1233.71	881.17
INVEST.	0.00	3056.30	19596.41	20921.69	22379.50	20668.38	22084.44	11910.82	12263.36
RECURSOS	0.00	0.00	1069.70	6858.74	7322.59	7832.82	7233.93	7729.55	4168.79
	0.00	3056.30	18526.71	14062.95	15056.91	12835.56	14850.51	4181.27	8094.57
INICIAÇÃO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	11029.30	27138.71	22674.95	23668.91	23486.56	25616.51	15419.27	19332.57
INICIAÇÃO	26359.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	11029.30	27138.71	22674.95	23668.91	23486.56	25616.51	15419.27	19332.57
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INICIAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
	61506.20	0.00	0.00	0.00	12756.97	2328.90	0.00	0.00	0.00
	30306.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	13252.79	14578.07	16035.88	17639.46	2748.75	3525.44	3877.98
	-26359.00	4649.30	13885.92	8096.88	0.00	0.00	18147.76	11893.83	15454.59

PARANA S/A - MINEROPAR

DATA : 10/11/87

NOME DO PROJETO : FLUORITA VOLTA GRANDE

FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
EXTRACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MANUTENCAO	493.37	66.79	839.84	839.84	658.88	459.82	469.15	228.29	179.10
INVESTIMENTO	12651.16	13077.74	15366.69	16004.69	16185.65	16384.71	14339.38	15049.24	15098.43
RENTA	4292.18	4427.91	4577.21	5378.34	5601.64	5664.98	5734.65	5018.78	5267.23
EXTRACAO	8358.98	8649.83	10789.48	10626.35	10584.01	10719.73	8604.73	10030.46	9831.20
EXTRACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MANUTENCAO	19596.98	19887.83	18965.48	18164.35	18122.01	18257.73	18178.73	19135.46	18936.20
EXTRACAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MANUTENCAO	19596.98	19887.83	18965.48	18164.35	18122.01	18257.73	18178.73	19135.46	18936.20
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EXTRACAO	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
MANUTENCAO	0.00	8398.38	0.00	0.00	0.00	2282.89	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EXTRACAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MANUTENCAO	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EXTRACAO	4265.78	667.91	0.00	1809.61	1990.57	2189.62	2408.59	491.90	541.09
MANUTENCAO	15331.20	0.00	18965.48	16354.74	16131.44	0.00	9029.14	18643.56	18395.11

PARANA S/A - MINEROPAR
 TITULO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	6958.30	6958.30	3479.20
	27091.70	27091.70	13546.80
	2709.17	2709.17	1354.68
RECEITA	9105.00	9105.00	9105.00
DEBITO	0.00	0.00	0.00
DEBITO	124.99	65.47	0.00
DEBITO	15152.54	15212.06	3087.12
RECEITA	5284.45	5303.39	6404.71
DEBITO	9868.09	9908.67	-3317.59
RECEITA	9105.00	9105.00	9105.00
DEBITO	0.00	0.00	0.00
DEBITO	18973.09	19013.67	5787.41
DEBITO	0.00	0.00	0.00
DEBITO	18973.09	19013.67	5787.41
DEBITO	0.00	0.00	4680.00
DEBITO	0.00	0.00	749.00
DEBITO	0.00	0.00	0.00
DEBITO	0.00	0.00	0.00
DEBITO	0.00	0.00	0.00
DEBITO	0.00	0.00	0.00
DEBITO	0.00	0.00	0.00
DEBITO	0.00	0.00	0.00
DEBITO	595.19	654.71	0.00
DEBITO	18377.90	18358.96	11216.41

DEBITO ATRATIVIDADE =) 15.00
 DEBITO PRESENTE =) 33260.81
 DEBITO DE RETORNO =) 31.39

Capital Terceiros
 Inv. Prévias Ano -1
 Royalties 15%

PARANA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	5218.80	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55
	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26
EXTRACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	6150.62	6150.62	4825.34	3367.53	3243.18	1936.00	1617.27	1168.24
RENTA	0.00	1490.66	16465.17	17790.45	19248.26	17333.61	18525.79	8396.02	8845.05
RENTA	0.00	0.00	521.73	5762.81	6226.66	6736.89	6066.76	6484.03	2938.61
RENTA	0.00	1490.66	15943.44	12027.64	13021.60	10596.72	12459.03	1911.99	5906.44
EXTRACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	9463.66	24555.44	20639.64	21633.60	21247.72	23225.03	13149.99	17144.44
RENTA	26359.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	9463.66	24555.44	20639.64	21633.60	21247.72	23225.03	13149.99	17144.44
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
RENTA	61506.20	0.00	0.00	0.00	14792.28	4567.74	0.00	0.00	0.00
RENTA	30306.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
RENTA	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	13252.79	14578.07	16035.88	17639.46	3187.30	4490.24	4939.28
RENTA	-26359.80	3083.66	11302.65	6061.57	0.00	0.00	15317.73	8659.75	12205.16

PARAMA S/A - MINEROPAR
 DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXD.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
ESTACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OUTRO	674.32	131.00	1107.66	1107.66	868.99	606.46	826.63	508.96	399.29
ANEL	9338.97	9882.29	11967.63	12605.63	12844.30	13106.83	10850.66	11637.33	11747.00
REDE	3095.77	3268.64	3458.00	4188.67	4411.97	4495.51	4587.39	3797.73	4073.07
	6243.20	6613.65	8508.83	8416.96	8432.33	8611.32	6263.27	7839.60	7673.93
ESTACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OUTRO	17481.20	17851.65	16684.83	15954.96	15970.33	16149.32	15837.27	16944.60	16778.93
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OUTRO	17481.20	17851.65	16684.83	15954.96	15970.33	16149.32	15837.27	16944.60	16778.93
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTADUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	11076.64	0.00	0.00	0.00	5089.58	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
OUTRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	5433.20	1309.99	0.00	2386.69	2625.36	2887.90	3176.69	1096.66	1206.32
OUTRO	12048.00	0.00	16684.83	13568.27	13344.97	0.00	5919.58	15847.94	15572.61

PARANA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	10437.45	10437.45	5218.80
	23612.55	23612.55	11007.20
	2361.26	2361.26	1100.72
INIZACAO	9105.00	9105.00	9105.00
PRO	0.00	0.00	0.00
RETINO	278.66	145.96	0.00
TRAVEL	11867.63	12000.33	1521.48
RENDIA	4111.45	4153.67	4732.64
PRO	7756.18	7846.66	-3211.16
RETIACAO	9105.00	9105.00	9105.00
PRO	0.00	0.00	0.00
RETIACAO	16861.18	16951.66	5893.84
PRO	0.00	0.00	0.00
RETI	16861.18	16951.66	5893.84
PRO	0.00	0.00	4680.00
RETI	0.00	0.00	749.00
PRO	0.00	0.00	0.00
PRO	0.00	0.00	0.00
PRO	0.00	0.00	0.00
PRO	0.00	0.00	0.00
PRO	0.00	0.00	0.00
PRO	0.00	0.00	0.00
PRO	0.00	0.00	0.00
PRO	1326.95	1459.65	0.00
RETI	15534.23	15492.01	11322.84

RETI ATRATIVIDADE = > 15.00
 RETI PRESENTE = > 21341.15
 RETI DE RETORNO = > 25.54

Capital Próprio

Inv. Prévias Anos 0, 1 e 2

Royalties 5%

PARANA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	0.00	20820.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
INVESTIMENTO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	10772.56	20870.26	20870.26	20870.26	26839.26	26724.26	16275.76	16275.76
RENTA	0.00	0.00	3770.40	10107.39	10107.39	10107.39	9393.74	9353.49	5696.52
RENTA	0.00	10772.56	25107.86	18770.87	18770.87	16731.87	17330.52	6922.27	10579.24
RENTA	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	18745.56	33719.86	27382.87	27382.87	27382.87	20096.52	18160.27	21817.24
RENTA	57560.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	18745.56	33719.86	27382.87	27382.87	27382.87	20096.52	18160.27	21817.24
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	10102.00	10102.00	10102.00	0.00	0.00	0.00	0.00	0.00
RENTA	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
RENTA	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	-57560.00	2263.56	23617.86	17200.87	6992.87	19206.87	23376.52	18160.27	21817.24

PARANA S/A - MINEROPIAR
 TITULO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85
	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09
DETERMINACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
VALOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TIPO	0.00	0.00	580.11	0.00	0.00	0.00	0.00	0.00	0.00
PRECIZAO	16275.76	16275.76	18757.65	19975.76	19975.76	19975.76	17939.76	18408.76	18408.76
RENTA	5696.52	5696.52	5696.52	6565.18	6991.52	6991.52	6991.52	6278.92	6443.07
VALOR	10579.24	10579.24	13061.13	13410.58	12984.24	12984.24	10948.24	12129.84	11965.69
DETERMINACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
VALOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TIPO	21817.24	21817.24	21237.13	20948.58	20522.24	20522.24	20522.24	21234.84	21070.69
VALOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TIPO	21817.24	21817.24	21237.13	20948.58	20522.24	20522.24	20522.24	21234.84	21070.69
VALOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRECIZAO	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
VALOR	0.00	5801.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VALOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VALOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VALOR	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
VALOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VALOR	0.00	0.00	5801.06	0.00	0.00	0.00	0.00	0.00	0.00
VALOR	21817.24	0.00	15436.07	20948.58	20522.24	2171.24	13781.24	21234.84	21070.69

Capital Próprio
Inv. Prévias Anos 0, 1 e 2
Royalties 10%

PARAMA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
ALIZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTAVEL	0.00	9206.92	25747.03	25747.03	25747.03	23708.03	23593.03	13144.53	13144.53
E NENDA	0.00	0.00	3222.42	9011.46	9011.46	9011.46	8297.81	8257.56	4600.59
REDO	0.00	9206.92	22524.61	16735.57	16735.57	14696.57	15295.22	4886.97	8543.94
ESTACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NEAO	0.00	17179.92	31136.61	25347.57	25347.57	25347.57	26061.22	16124.97	19781.94
OPRITO	57560.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LETO	0.00	17179.92	31136.61	25347.57	25347.57	25347.57	26061.22	16124.97	19781.94
REDO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LAO	0.00	10102.00	10102.00	10102.00	0.00	0.00	0.00	0.00	0.00
ETV	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
ES	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
E GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAIXA	-57560.00	697.92	21034.61	15245.57	4957.57	17171.57	21341.22	16124.97	19781.94

PARANA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
DEZEMBRO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
AGOSTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SETEMBRO	0.00	0.00	783.64	0.00	0.00	0.00	0.00	0.00	0.00
OUTUBRO	13144.53	13144.53	15422.89	16844.53	16844.53	16844.53	14808.53	15277.53	15277.53
RENTA	4600.59	4600.59	4600.59	5398.01	5895.59	5895.59	5895.59	5182.99	5347.14
DEZEMBRO	8543.94	8543.94	10822.30	11446.52	10948.94	10948.94	8912.94	10094.54	9930.39
DEZEMBRO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
AGOSTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEZEMBRO	19781.94	19781.94	18998.30	18984.52	18486.94	18486.94	18486.94	19199.54	19035.39
AGOSTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEZEMBRO	19781.94	19781.94	18998.30	18984.52	18486.94	18486.94	18486.94	19199.54	19035.39
AGOSTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
AGOSTO	0.00	7836.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AGOSTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AGOSTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AGOSTO	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
AGOSTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AGOSTO	0.00	0.00	7836.36	0.00	0.00	0.00	0.00	0.00	0.00
AGOSTO	19781.94	0.00	11161.94	18984.52	18486.94	135.94	11745.94	19199.54	19035.39

Capital Próprio

Inv. Prévias Anos 0, 1 e 2

Royalties 15%

PARANA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	5218.00	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55
	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26
INICIAÇÃO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
FIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONTINUAÇÃO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TRAVEL	0.00	7641.28	22615.79	22615.79	22615.79	20576.79	20461.79	10013.29	10013.29
RENTA	0.00	0.00	2674.45	7915.53	7915.53	7915.53	7201.88	7161.63	3504.65
FIN	0.00	7641.28	19941.34	14700.26	14700.26	12661.26	13259.91	2851.66	6508.64
INICIAÇÃO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
FIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CONTINUAÇÃO	0.00	15614.28	28553.34	23312.26	23312.26	23312.26	24025.91	14089.66	17746.64
PRÓPRIO	57560.00	867.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FIN	0.00	15614.28	28553.34	23312.26	23312.26	23312.26	24025.91	14089.66	17746.64
FIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
FIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FIN	0.00	10102.00	10102.00	10102.00	0.00	0.00	0.00	0.00	0.00
FIN	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
FIN	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
DE GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FIN	-57560.00	-867.72	18451.34	13210.26	2922.26	15136.26	19305.91	14089.66	17746.64

BO PARANA S/A - MINEROPAR
 TIPO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
INIZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
ESTADO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTADO	0.00	0.00	987.17	0.00	0.00	0.00	189.94	0.00	0.00
ESTADO	10013.29	10013.29	12088.12	13713.29	13713.29	13713.29	11487.35	12146.29	12146.29
RENTA	3504.65	3504.65	3504.65	4230.84	4799.65	4799.65	4799.65	4020.57	4251.20
RENTA	6508.64	6508.64	8583.47	9482.45	8913.64	8913.64	6687.70	8125.72	7895.09
INIZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
ESTADO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTADO	17746.64	17746.64	16759.47	17020.45	16451.64	16451.64	16261.70	17230.72	17000.09
ESTADO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTADO	17746.64	17746.64	16759.47	17020.45	16451.64	16451.64	16261.70	17230.72	17000.09
ESTADO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTADO	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
ESTADO	0.00	9871.66	0.00	0.00	0.00	1899.36	0.00	0.00	0.00
ESTADO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTADO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTADO	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
ESTADO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTADO	0.00	0.00	9871.66	0.00	0.00	0.00	1899.36	0.00	0.00
ESTADO	17746.64	0.00	6887.81	17020.45	16451.64	0.00	7621.34	17230.72	17000.09

BO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	10437.45	10437.45	5218.80
	23612.55	23612.55	11807.20
	2361.26	2361.26	1180.72
	9105.00	9105.00	9105.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	12146.29	12146.29	1521.48
	4251.20	4251.20	4783.72
	7895.09	7895.09	-3262.24
	9105.00	9105.00	9105.00
	0.00	0.00	0.00
	17000.09	17000.09	5842.76
	0.00	0.00	0.00
	17000.09	17000.09	5842.76
	0.00	0.00	4680.00
	0.00	0.00	749.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	17000.09	17000.09	11271.76

COM ATRATIVIDADE =) 15.00
 VALOR PRESENTE =) 12959.13
 TAXA DE RETORNO =) 18.52

Capital Terceiros

Inv. Prévias Anos 0, 1 e 2

Royalties 5%

MINEROPAR S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	0.00	20028.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	4029.20	4152.79	3284.62	2302.99	1719.05	531.29	389.00	271.48
	0.00	6743.36	24725.47	25593.64	26575.27	25120.21	26192.97	15886.76	16004.28
	0.00	0.00	2360.18	8653.91	8957.77	9301.34	8792.07	9167.54	5560.37
	0.00	6743.36	22365.29	16939.73	17617.50	15818.87	17400.90	6719.22	10443.91
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	14716.36	30977.29	25551.73	26229.50	26469.87	28166.90	17957.22	21681.91
	17268.00	529.69	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	14716.36	30977.29	25551.73	26229.50	26469.87	28166.90	17957.22	21681.91
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
	40292.00	1235.95	0.00	0.00	4958.36	0.00	0.00	0.00	0.00
	0.00	10102.00	10102.00	10102.00	0.00	0.00	0.00	0.00	0.00
	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	8681.75	9816.23	10797.86	11077.65	1422.84	1175.22	1292.74
	-17268.00	-529.69	12193.54	5633.50	0.00	6416.22	22024.06	16782.00	20389.17

BO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
INVESTIMENTO	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85
DESEMBOLSAMENTOS	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09
AMORTIZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	142.20	0.00	575.13	575.13	451.21	314.89	164.94	0.00	0.00
RENTAS	16133.56	16275.76	18762.63	19400.63	19524.55	19660.87	17774.82	18408.76	18408.76
RENTAS	5601.50	5646.75	5696.52	6566.92	6790.22	6833.59	6881.30	6221.19	6443.07
RENTAS	10532.06	10629.01	13066.11	12833.71	12734.33	12827.28	10093.52	12187.57	11965.69
RENTAS	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	21770.06	21867.01	21242.11	20371.71	20272.33	20365.28	20467.52	21292.57	21070.69
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	21770.06	21867.01	21242.11	20371.71	20272.33	20365.28	20467.52	21292.57	21070.69
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
RENTAS	0.00	5751.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
RENTAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAS	1422.02	0.00	0.00	1239.24	1363.16	1499.47	1649.42	0.00	0.00
RENTAS	20348.04	0.00	21242.11	19132.47	18909.17	514.81	12077.10	21292.57	21070.69

Capital Terceiros
Inv. Prévias Anos 0, 1 e 2
Royalties 10%

NO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
TO	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
DIS	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
IZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
ITAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	4029.20	4262.39	3394.22	2388.97	2013.31	796.98	572.79	399.74
UTAVEL	0.00	5177.72	21484.64	22352.81	23358.06	21694.72	22796.05	12571.74	12744.79
E KENDA	0.00	0.00	1812.20	7519.62	7823.48	8175.32	7593.15	7978.62	4400.11
LIDO	0.00	5177.72	19672.44	14833.19	15534.58	13519.40	15202.90	4593.12	8344.68
IZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
ITAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAHO	0.00	13150.72	28284.44	23445.19	24146.58	24170.40	25968.90	15831.12	19582.68
OPRIO	17268.00	999.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LETO	0.00	13150.72	28284.44	23445.19	24146.58	24170.40	25968.90	15831.12	19582.68
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
IS	40292.00	2331.90	0.00	0.00	7301.04	0.00	0.00	0.00	0.00
US	0.00	10102.00	10102.00	10102.00	0.00	0.00	0.00	0.00	0.00
ITU	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
IS	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.00	0.00	8681.75	10052.38	11057.62	12163.38	2241.93	1730.48	1903.52
CAIXA	-17268.00	-999.38	9500.69	3290.81	0.00	3831.02	19006.97	14100.64	17679.16

Capital Terceiros
Inv. Prévias Anos 0, 1 e 2
Royalties 10%

NO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
TO	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
DIS	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
IZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
ITAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	4029.20	4262.39	3394.22	2388.97	2013.31	796.98	572.79	399.74
UTAVEL	0.00	5177.72	21484.64	22352.81	23358.06	21694.72	22796.05	12571.74	12744.79
E KENDA	0.00	0.00	1812.20	7519.62	7823.48	8175.32	7593.15	7978.62	4400.11
LIDO	0.00	5177.72	19672.44	14833.19	15534.58	13519.40	15202.90	4593.12	8344.68
IZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
ITAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ICAO	0.00	13150.72	28284.44	23445.19	24146.58	24170.40	25968.90	15831.12	19582.68
OPRIO	17268.00	999.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LETO	0.00	13150.72	28284.44	23445.19	24146.58	24170.40	25968.90	15831.12	19582.68
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
IS	40292.00	2331.90	0.00	0.00	7301.04	0.00	0.00	0.00	0.00
US	0.00	10102.00	10102.00	10102.00	0.00	0.00	0.00	0.00	0.00
ITU	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
IS	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RES	0.00	0.00	8681.75	10052.38	11057.62	12163.38	2241.93	1730.48	1903.52
CAIXA	-17268.00	-999.38	9500.69	3290.81	0.00	3831.02	19006.97	14100.64	17679.16

PARAMA S/A - MINEROPAR
 TÍTULO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
ITAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ITINO	209.39	0.00	776.31	776.31	609.04	425.04	432.63	209.99	164.74
ITAVEL	12935.14	13144.53	15430.22	16068.22	16235.49	16419.49	14375.90	15067.54	15112.79
ITENHA	4460.68	4527.30	4600.59	5400.58	5623.88	5682.42	5746.82	5031.56	5273.64
ITDO	8474.46	8617.23	10029.63	10667.64	10611.61	10737.07	8629.08	10035.98	9839.15
ITELIACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
ITAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ITCAO	19712.46	19855.23	19005.63	18205.64	18149.61	18275.07	18203.08	19140.98	18944.15
ITPRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ITETO	19712.46	19855.23	19005.63	18205.64	18149.61	18275.07	18203.08	19140.98	18944.15
ITINO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ITESTIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
IT	0.00	7763.07	0.00	0.00	0.00	2099.92	0.00	0.00	0.00
ITAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ITTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IT	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
ITBIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ITES	2093.88	0.00	0.00	1672.71	1839.99	2023.99	2226.38	452.47	497.72
ITLIXA	17618.58	0.00	19005.63	16532.93	16309.62	0.00	9235.70	18688.51	18446.43

MINEROPAR S/A - MINEROPAR
 TIPO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	6958.30	6958.30	3479.20
INVESTIMENTO	27091.70	27091.70	13546.80
DESEMBOLSAMENTO	2709.17	2709.17	1354.68
RECEITA	9105.00	9105.00	9105.00
DESEMBOLSAMENTO	0.00	0.00	0.00
DESEMBOLSAMENTO	114.97	60.22	0.00
DESEMBOLSAMENTO	15162.56	15217.31	3087.12
DESEMBOLSAMENTO	5289.48	5306.90	6406.55
DESEMBOLSAMENTO	9873.08	9910.41	-3319.43
RECEITA	9105.00	9105.00	9105.00
DESEMBOLSAMENTO	0.00	0.00	0.00
DESEMBOLSAMENTO	18978.08	19015.41	5785.57
DESEMBOLSAMENTO	0.00	0.00	0.00
DESEMBOLSAMENTO	18978.08	19015.41	5785.57
DESEMBOLSAMENTO	0.00	0.00	4600.00
DESEMBOLSAMENTO	0.00	0.00	749.00
DESEMBOLSAMENTO	0.00	0.00	0.00
DESEMBOLSAMENTO	0.00	0.00	0.00
DESEMBOLSAMENTO	0.00	0.00	0.00
DESEMBOLSAMENTO	0.00	0.00	0.00
DESEMBOLSAMENTO	0.00	0.00	0.00
DESEMBOLSAMENTO	547.49	602.24	0.00
DESEMBOLSAMENTO	18430.59	18413.17	11214.57

VALOR ATRATIVIDADE =) 15.00
 VALOR PRESENTE =) 35561.00
 VALOR DE RETORNO =) 33.78

Capital Terceiros

Inv. Prévias Anos 0, 1 e 2

Royalties 15%

NO PARAMA S/A - MINEROPAR
 LIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	5218.80	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
TO	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55
SUS	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26
YIZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
ITAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	4029.20	4371.98	3503.81	2474.95	2307.59	1062.68	756.58	528.01
UTAVEL	0.00	3612.08	18243.81	19111.98	20140.84	18269.20	19399.11	9256.71	9485.28
E RENDA	0.00	0.00	1264.23	6385.33	6689.19	7049.29	6394.22	6789.69	3239.85
MO	0.00	3612.08	18979.58	12726.65	13451.65	11219.91	13004.89	2467.02	6245.43
RECITACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAAO	0.00	11585.08	25591.58	21338.65	22063.65	21870.91	23770.89	13705.02	17483.43
MPRIO	17268.00	1469.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LETO	0.00	11585.08	25591.58	21338.65	22063.65	21870.91	23770.89	13705.02	17483.43
DIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
S	40292.00	3427.84	0.00	0.00	9643.73	0.00	0.00	0.00	0.00
IAS	0.00	10102.00	10102.00	10102.00	0.00	0.00	0.00	0.00	0.00
ITO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
IS	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
E BIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	8681.75	10288.52	11317.38	12449.11	3061.02	2285.74	2514.31
LIXA	-17268.00	-1469.08	6807.83	948.13	0.00	1245.80	15989.87	11419.28	14969.12

BO PARANA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
EXTRACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
ESTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTRUCO	276.57	0.00	977.49	977.49	766.87	535.18	751.79	471.46	369.88
INVEST	9736.72	10013.29	12097.00	12735.00	12946.42	13178.11	10925.50	11674.83	11776.41
RENTA	3319.85	3407.85	3504.65	4234.23	4457.53	4531.25	4612.34	3823.93	4086.19
RENTA	6416.87	6605.44	8593.15	8501.57	8488.89	8646.86	6313.16	7850.90	7690.22
EXTRACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
ESTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTRUCO	17654.87	17843.44	16769.15	16039.57	16026.89	16184.86	15887.16	16955.90	16795.22
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	17654.87	17843.44	16769.15	16039.57	16026.89	16184.86	15887.16	16955.90	16795.22
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
RENTA	0.00	9774.86	0.00	0.00	0.00	4714.64	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	2765.74	0.00	0.00	2106.20	2316.82	2548.50	2803.35	1015.87	1117.45
RENTA	14889.13	0.00	16769.15	13933.37	13710.07	0.00	6342.81	15940.03	15677.77

MINEROPAR S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	10437.45	10437.45	5218.80
TO	23612.55	23612.55	11807.20
OS	2361.26	2361.26	1180.72
IZACAO	9105.00	9105.00	9105.00
TAO	0.00	0.00	0.00
ESTIMO	258.13	135.21	0.00
UTAVEL	11888.16	12011.08	1521.48
E NENDA	4121.74	4160.86	4736.40
UNDO	7766.42	7850.22	-3214.92
EEIACAO	9105.00	9105.00	9105.00
OSTAO	0.00	0.00	0.00
ONCAO	16871.42	16955.22	5890.08
OPRITO	0.00	0.00	0.00
LETO	16871.42	16955.22	5890.08
GIRO	0.00	0.00	4680.00
RESIDUAL	0.00	0.00	749.00
OS	0.00	0.00	0.00
IAS	0.00	0.00	0.00
LETO	0.00	0.00	0.00
ES	0.00	0.00	0.00
E GIRO	0.00	0.00	0.00
ES	1229.20	1352.12	0.00
CAIXA	15642.22	15603.10	11319.08

MA ATRATIVIDADE =) 15.00
 UNDO PRESENTE =) 23605.33
 MA DE RETORNO =) 27.39

Capital Próprio

Inv. Prévias 20% Ano 0, 30% Ano 1 e 50% Ano 2

Royalties 5%

PARAMA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
INVESTIMENTO	0.00	20828.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
RENTAS	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
RECUPERAÇÃO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
DEPRECIACAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	10772.56	28878.26	28878.26	28878.26	26839.26	26724.26	16275.76	16275.76
RENTA	0.00	0.00	3770.40	10107.39	10107.39	10107.39	9393.74	9353.49	5696.52
RENTA	0.00	10772.56	25107.86	18770.87	18770.87	16731.87	17330.52	6922.27	10579.24
RECUPERAÇÃO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
DEPRECIACAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	18745.56	33719.86	27382.87	27382.87	27382.87	28096.52	18160.27	21817.24
INVESTIMENTO	57560.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	18745.56	33719.86	27382.87	27382.87	27382.87	28096.52	18160.27	21817.24
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	6061.00	9092.00	15153.00	0.00	0.00	0.00	0.00	0.00
RENTA	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
RENTA	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	-57560.00	6304.56	24627.86	12229.87	6992.87	19206.87	23376.52	18160.27	21817.24

RIO PARANA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	3479.15	3479.15	1739.60
INVESTIMENTO	30570.85	30570.85	15286.40
DESEMBOLSAMENTO	3057.09	3057.09	1528.64
RESTITUICAO	9105.00	9105.00	9105.00
RENTAS	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00
RENTAS	18408.76	18408.76	4652.76
RENTAS	6443.07	6443.07	8071.54
RENTAS	11965.69	11965.69	-3418.78
RENTAS	9105.00	9105.00	9105.00
RENTAS	0.00	0.00	0.00
RENTAS	21070.69	21070.69	5686.22
RENTAS	0.00	0.00	0.00
RENTAS	21070.69	21070.69	5686.22
RENTAS	0.00	0.00	4680.00
RENTAS	0.00	0.00	749.00
RENTAS	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00
RENTAS	0.00	0.00	0.00
RENTAS	21070.69	21070.69	11115.22

TAXA DE ATRATIVIDADE =) 15.00
 PRECISO PRESENTE =) 39059.34
 TAXA DE RETORNO =) 25.64

Capital Próprio

Inv. Prévias 20% Ano 0, 30% Ano 1 e 50% Ano 2

Royalties 10%

PARAMA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
INVESTIMENTO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RECEITA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DEBITO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAL	0.00	9206.92	25747.03	25747.03	25747.03	23708.03	23593.03	13144.53	13144.53
RENTA	0.00	0.00	3222.42	9011.46	9011.46	9011.46	8297.81	8257.56	4600.59
RENTA	0.00	9206.92	22524.61	16735.57	16735.57	14696.57	15295.22	4886.97	8543.94
RENTA	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	17179.92	31136.61	25347.57	25347.57	25347.57	26061.22	16124.97	19781.94
PROPRIO	57560.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	17179.92	31136.61	25347.57	25347.57	25347.57	26061.22	16124.97	19781.94
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	6061.00	9092.00	15153.00	0.00	0.00	0.00	0.00	0.00
RENTA	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
RENTA	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAIXA	-57560.00	4738.92	22044.61	10194.57	4957.57	17171.57	21341.22	16124.97	19781.94

BO PARANA S/A - MINEROPAR
 LIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
PRO	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
RES	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
DEZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STINO	0.00	0.00	783.64	0.00	0.00	0.00	0.00	0.00	0.00
STAVEL	13144.53	13144.53	15422.89	16844.53	16844.53	16844.53	14808.53	15277.53	15277.53
REMOA	4600.59	4600.59	4600.59	5398.01	5895.59	5895.59	5895.59	5182.99	5347.14
REMO	8543.94	8543.94	10022.30	11446.52	10948.94	10948.94	8912.94	10094.54	9930.39
DEZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STINO	19781.94	19781.94	18998.30	18984.52	18486.94	18486.94	18486.94	19199.54	19035.39
STAVEL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REMO	19781.94	19781.94	18998.30	18984.52	18486.94	18486.94	18486.94	19199.54	19035.39
STINO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
STAVEL	0.00	7836.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REMO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REMO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REMO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REMO	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
STINO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STAVEL	0.00	0.00	7836.36	0.00	0.00	0.00	0.00	0.00	0.00
REMO	19781.94	0.00	11161.94	18984.52	18486.94	135.94	11745.94	19199.54	19035.39

Capital Próprio

Inv. Prévias 20% Ano 0, 30% Ano 1 e 50% Ano 2

Royalties 15%

MINEROPAR S/A - MINEROPAR
 TIPO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	5218.00	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55
	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	7641.28	22615.79	22615.79	22615.79	20576.79	20461.79	10013.29	10013.29
	0.00	0.00	2674.45	7915.53	7915.53	7915.53	7201.88	7161.63	3504.65
	0.00	7641.28	19941.34	14700.26	14700.26	12661.26	13259.91	2851.66	6508.64
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	15614.28	28553.34	23312.26	23312.26	23312.26	24025.91	14089.66	17746.64
	57560.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	15614.28	28553.34	23312.26	23312.26	23312.26	24025.91	14089.66	17746.64
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	6061.00	9092.00	15153.00	0.00	0.00	0.00	0.00	0.00
	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	-57560.00	3173.28	19461.34	8159.26	2922.26	15136.26	19305.91	14089.66	17746.64

PARAMA S/A - MINEROPAR
 DATA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXD.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	987.17	0.00	0.00	0.00	189.94	0.00	0.00
	10013.29	10013.29	12088.12	13713.29	13713.29	13713.29	11487.35	12146.29	12146.29
	3504.65	3504.65	3504.65	4230.84	4799.65	4799.65	4799.65	4020.57	4251.20
	6508.64	6508.64	8583.47	9482.45	8913.64	8913.64	6687.70	8125.72	7895.09
	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	17746.64	17746.64	16759.47	17020.45	16451.64	16451.64	16261.70	17230.72	17000.09
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	17746.64	17746.64	16759.47	17020.45	16451.64	16451.64	16261.70	17230.72	17000.09
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	9871.66	0.00	0.00	0.00	1899.36	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	9871.66	0.00	0.00	0.00	1899.36	0.00	0.00
	17746.64	0.00	6887.81	17020.45	16451.64	0.00	7621.34	17230.72	17000.09

PARANA S/A - MINEROPAR
 TIPO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	10437.45	10437.45	5218.80
	23612.55	23612.55	11807.20
	2361.26	2361.26	1180.72
IZACAO	9105.00	9105.00	9105.00
STAO	0.00	0.00	0.00
STAO	0.00	0.00	0.00
UTAVEL	12146.29	12146.29	1521.48
E RENDA	4251.20	4251.20	4783.72
UNDO	7895.09	7895.09	-3262.24
REIACAO	9105.00	9105.00	9105.00
STAO	0.00	0.00	0.00
CAO	17000.09	17000.09	5842.76
PRIO	0.00	0.00	0.00
ETO	17000.09	17000.09	5842.76
IRO	0.00	0.00	4680.00
RESIDUAL	0.00	0.00	749.00
IS	0.00	0.00	0.00
IAS	0.00	0.00	0.00
ETO	0.00	0.00	0.00
ES	0.00	0.00	0.00
E GIRO	0.00	0.00	0.00
ES	0.00	0.00	0.00
CAIXA	17000.09	17000.09	11271.76

VALOR ATRATIVIDADE = } 15.00
 VALOR PRESENTE = } 13915.64
 VALOR DE RETORNO = } 18.88

Capital Terceiros

Inv. Prévias 20% Ano 0, 30% Ano 1 e 50% Ano 2
Royalties 5%

PARANA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	0.00	20828.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
INVESTICAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
FINANCIAMENTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAL	0.00	4029.20	4029.20	3161.03	2206.03	1616.71	461.17	361.00	252.50
RENTAL	0.00	6743.36	24849.06	25717.23	26672.23	25222.55	26263.09	15913.96	16023.26
RENTAL	0.00	0.00	2360.18	8697.17	9001.03	9335.28	8827.89	9192.08	5569.89
RENTAL	0.00	6743.36	22488.88	17020.06	17671.20	15887.27	17435.20	6721.08	10453.37
RENTAL	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RENTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAL	0.00	14716.36	31100.88	25632.06	26283.20	26538.27	20201.20	17959.88	21691.37
RENTAL	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAL	0.00	14716.36	31100.88	25632.06	26283.20	26538.27	20201.20	17959.88	21691.37
RENTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
RENTAL	40292.00	0.00	0.00	0.00	4611.72	0.00	0.00	0.00	0.00
RENTAL	0.00	6061.00	9092.00	15153.00	0.00	0.00	0.00	0.00	0.00
RENTAL	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
RENTAL	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
RENTAL	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RENTAL	0.00	0.00	8681.75	9549.92	10504.92	11555.41	993.69	1093.06	1202.37
CAIXA	-17268.00	2275.36	13327.13	929.14	0.00	6806.86	22487.51	16866.82	20489.00

DO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85
	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09
	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	132.26	0.00	575.48	575.48	451.48	315.08	165.04	0.00	0.00
	16143.50	16275.76	18762.28	19400.28	19524.28	19660.68	17774.72	18408.76	18408.76
	5608.14	5650.23	5696.52	6566.80	6790.10	6833.50	6881.24	6221.15	6443.07
	10535.36	10625.53	13065.76	12833.48	12734.18	12827.18	10893.48	12187.61	11965.69
	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21773.36	21863.53	21241.76	20371.48	20272.18	20365.18	20467.48	21292.61	21070.69
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21773.36	21863.53	21241.76	20371.48	20272.18	20365.18	20467.48	21292.61	21070.69
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	5754.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1322.60	0.00	0.00	1239.98	1363.98	1500.38	1650.42	0.00	0.00
	20450.76	0.00	21241.76	19131.50	18908.20	513.80	12076.06	21292.61	21070.69

CO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	3479.15	3479.15	1739.60
PRO	30570.85	30570.85	15286.40
PROS	3057.09	3057.09	1528.64
PROTIZACAO	9105.00	9105.00	9105.00
PROTMO	0.00	0.00	0.00
PROTSTIMO	0.00	0.00	0.00
PROTUTAVEL	10408.76	10408.76	4652.76
PRORENDIA	6443.07	6443.07	8071.54
PRORDO	11965.69	11965.69	-3418.78
PRORECTACAO	9105.00	9105.00	9105.00
PRORSTAO	0.00	0.00	0.00
PRORANCAO	21070.69	21070.69	5686.22
PROPRIG	0.00	0.00	0.00
PRORLETO	21070.69	21070.69	5686.22
PRORGIRO	0.00	0.00	4880.00
PRORESIDUAL	0.00	0.00	749.00
PRORIS	0.00	0.00	0.00
PRORIBS	0.00	0.00	0.00
PRORLETO	0.00	0.00	0.00
PRORES	0.00	0.00	0.00
PRORGIRO	0.00	0.00	0.00
PRORES	0.00	0.00	0.00
CAIXA	21070.69	21070.69	11115.22

INDIA ATRATIVIDADE = > 15.00
 INDIDO PRESENTE = > 48224.18
 INDONA DE RETORNO = > 41.92

Capital Terceiros

Inv. Prévias 20% Ano 0, 30% Ano 1 e 50% Ano 2

Royalties 10%

MINEROPAR S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
TO	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
OS	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
IZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	4029.20	4029.20	3161.03	2316.65	1941.92	762.54	590.72	401.71
OTAVEL	0.00	5177.72	21717.83	22586.00	23430.38	21766.11	22830.49	12553.81	12742.82
E RENDA	0.00	0.00	1812.20	7601.24	7905.10	8200.63	7618.14	7990.67	4393.83
UDO	0.00	5177.72	19905.63	14984.76	15525.28	13565.48	15212.35	4563.14	8348.99
ECIACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACHAO	0.00	13150.72	28517.63	23596.76	24137.28	24216.48	25978.35	15801.14	19586.99
OPRID	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LETO	0.00	13150.72	28517.63	23596.76	24137.28	24216.48	25978.35	15801.14	19586.99
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESTOVAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
OS	40292.00	0.00	0.00	1106.16	6757.64	0.00	0.00	0.00	0.00
IAS	0.00	6061.00	9092.00	15153.00	0.00	0.00	0.00	0.00	0.00
LETO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
ES	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
E GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	8681.75	9549.92	10504.92	11793.76	1718.25	1890.08	2079.09
CAIXA	-17268.00	709.72	10743.88	0.00	0.00	4246.72	19540.10	13911.06	17507.90

NO PARANA S/A - MINEROPAR
 DATA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
IAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	193.80	0.00	776.85	776.85	609.46	425.34	432.94	210.15	164.87
ITAVEL	12950.73	13144.53	15429.68	16067.68	16235.07	16419.19	14375.59	15067.38	15112.66
RENDIA	4459.99	4532.76	4600.59	5400.39	5623.69	5682.27	5746.72	5031.46	5273.58
UDO	8490.74	8611.77	10829.09	10667.29	10611.38	10736.92	8628.87	10035.92	9839.08
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
IAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IAO	19728.74	19849.77	19005.09	18205.29	18149.38	18274.92	18202.87	19140.92	18944.08
PILO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ITO	19728.74	19849.77	19005.09	18205.29	18149.38	18274.92	18202.87	19140.92	18944.08
IKO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	7768.53	0.00	0.00	0.00	2101.49	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
URO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1938.03	0.00	0.00	1673.89	1841.28	2025.41	2227.95	452.81	498.09
IA	17790.71	0.00	19005.09	16531.40	16308.10	0.00	9233.92	18688.11	18445.99

NO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	6958.30	6958.30	3479.20
NO	27091.70	27091.70	13546.80
POS	2709.17	2709.17	1354.68
UTILIZACAO	9105.00	9105.00	9105.00
INTAC	0.00	0.00	0.00
ESTIMO	115.06	60.27	0.00
MUTAVEL	15162.47	15217.26	3087.12
DE BENDA	5289.43	5306.86	6406.53
QUIDO	9873.04	9910.40	-3319.41
REACTACAO	9105.00	9105.00	9105.00
USTAO	0.00	0.00	0.00
ANCAO	18978.04	19015.40	5785.59
PRIO	0.00	0.00	0.00
LETO	18978.04	19015.40	5785.59
GIRO	0.00	0.00	4680.00
RESIDUAL	0.00	0.00	749.00
OS	0.00	0.00	0.00
IAS	0.00	0.00	0.00
LETO	0.00	0.00	0.00
ES	0.00	0.00	0.00
DE GIRO	0.00	0.00	0.00
ES	547.90	602.69	0.00
CAIXA	18430.14	18412.71	11214.59

UMA ATRATIVIDADE = > 15.00
 QUIDO PRESENTE = > 36182.06
 ZIMA DE RETORNO = > 34.77

Capital Terceiros

Inv. Prévias 20% Ano 0, 30% Ano 1 e 50% Ano 2
Royalties 15%

PARANA S/A - MINEROPAR		DATA : 10/11/87								
NOME DO PROJETO : FLUORITA VOLTA GRANDE		FLUXO.PRG								
	-1	0	1	2	3	4	5	6	7	
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00	
	0.00	5218.80	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	
	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55	
	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26	
DESEMBOLSAMENTO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00	
RECEITA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DESEMBOLSAMENTO	0.00	4029.20	4089.11	3220.94	2583.98	2437.42	1194.95	901.50	597.60	
RECEITA	0.00	3612.08	18526.68	19394.85	20031.81	18139.37	19266.84	9111.79	9415.69	
DESEMBOLSAMENTO	0.00	0.00	1264.23	6484.34	6788.20	7011.13	6348.78	6743.39	3189.13	
RECEITA	0.00	3612.08	17262.45	12910.51	13243.61	11128.24	12918.06	2368.40	6226.56	
DESEMBOLSAMENTO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00	
RECEITA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DESEMBOLSAMENTO	0.00	11585.08	25874.45	21522.51	21855.61	21779.24	23684.06	13606.40	17464.56	
RECEITA	17268.00	256.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DESEMBOLSAMENTO	0.00	11585.08	25874.45	21522.51	21855.61	21779.24	23684.06	13606.40	17464.56	
RECEITA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DESEMBOLSAMENTO	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00	
RECEITA	40292.00	599.14	0.00	3309.51	9181.32	0.00	0.00	0.00	0.00	
DESEMBOLSAMENTO	0.00	6061.00	9092.00	15153.00	0.00	0.00	0.00	0.00	0.00	
RECEITA	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00	
DESEMBOLSAMENTO	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00	
RECEITA	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
DESEMBOLSAMENTO	0.00	0.00	8681.75	9679.02	10646.93	12424.72	2934.55	3038.99	3342.89	
RECEITA	-17268.00	-256.78	8100.70	0.00	0.00	1178.52	16029.51	10567.41	14121.67	

PARAMA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
INVEST	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
DESENV	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
DESENV	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
DESENV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESENV	263.31	0.00	977.95	977.95	767.23	535.44	752.07	471.60	369.98
DESENV	9749.98	10013.29	12097.34	12735.34	12946.06	13177.85	10925.22	11674.69	11776.31
DESENV	3295.49	3412.49	3504.65	4234.07	4457.37	4531.12	4612.25	3823.83	4086.14
DESENV	6454.49	6600.80	8592.69	8501.27	9488.69	8646.73	6312.97	7850.86	7690.17
DESENV	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
DESENV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESENV	17692.49	17838.80	16768.69	16039.27	16026.69	16184.73	15886.97	16955.86	16795.17
DESENV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESENV	17692.49	17838.80	16768.69	16039.27	16026.69	16184.73	15886.97	16955.86	16795.17
DESENV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESENV	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
DESENV	0.00	9779.50	0.00	0.00	0.00	4715.98	0.00	0.00	0.00
DESENV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESENV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESENV	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
DESENV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESENV	2633.13	0.00	0.00	2107.20	2317.92	2549.71	2804.68	1016.16	1117.77
DESENV	15059.36	0.00	16768.69	13932.07	13708.77	0.00	6341.29	15939.70	15677.40

PARANA S/A - MINEROPAR
 FLUXO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRB

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	10437.45	10437.45	5218.80
	23612.55	23612.55	11807.20
	2361.26	2361.26	1180.72
	9105.00	9105.00	9105.00
	0.00	0.00	0.00
	258.21	135.25	0.00
	11888.08	12011.04	1521.48
	4121.71	4160.83	4736.38
	7766.37	7850.21	-3214.90
	9105.00	9105.00	9105.00
	0.00	0.00	0.00
	16871.37	16955.21	5890.10
	0.00	0.00	0.00
	16871.37	16955.21	5890.10
	0.00	0.00	4680.00
	0.00	0.00	749.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	1229.55	1352.50	0.00
CAIXA	15641.82	15602.71	11319.10

UMA ATRATIVIDADE	=)	15.00
UNIDO PRESENTE	=)	24447.61
UMA DE RETORNO	=)	28.44

Capital Terceiros

Inv. Prévias Anos 1, 2 e 3

Royalties 5%

BO PARANA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
TO	0.00	20828.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
OSIS	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
ITIZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	4029.20	4029.20	3161.03	2206.03	2626.91	1471.37	1154.33	805.59
UTAVEL	0.00	6743.36	24849.06	25717.23	26672.23	24212.35	25252.89	15121.43	15470.17
RE RENDA	0.00	0.00	2360.18	8697.17	9001.03	9335.28	8474.32	8838.51	5292.50
UIDO	0.00	6743.36	22488.88	17020.06	17671.20	14877.07	16778.57	6282.92	10177.67
REIZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACAO	0.00	14716.36	31100.88	25632.06	26283.20	25528.07	27544.57	17520.92	21415.67
PROPRIO	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NETO	0.00	14716.36	31100.88	25632.06	26283.20	25528.07	27544.57	17520.92	21415.67
DE GIRD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
OS	40292.00	0.00	0.00	0.00	14713.72	0.00	0.00	0.00	0.00
IAS	0.00	0.00	10102.00	10102.00	10102.00	0.00	0.00	0.00	0.00
NETO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
DES	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
DE GIRD	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OSIS	0.00	0.00	8681.75	9549.92	10504.92	11555.41	3170.38	3487.41	3836.16
CAIXA	-17268.00	8336.36	12317.13	5980.14	0.00	5796.66	19654.19	14033.51	17579.51

PARAMA S/A - MINEROPAR
 DATA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85
	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
ITAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIHO	421.98	0.00	565.34	565.34	443.52	309.53	162.13	0.00	0.00
UTAVEL	15853.78	16275.76	18772.42	19410.42	19532.24	19666.23	17777.63	18408.76	18408.76
RENDIA	5414.56	5548.82	5696.52	6570.35	6793.65	6836.28	6883.18	6222.17	6443.07
OTOD	10439.22	10726.94	13075.90	12840.07	12738.59	12829.95	10894.45	12186.59	11965.69
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
ITAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAAO	21677.22	21964.94	21251.90	20378.07	20276.59	20367.95	20468.45	21291.59	21070.69
OPRIZO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LETO	21677.22	21964.94	21251.90	20378.07	20276.59	20367.95	20468.45	21291.59	21070.69
OTRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
ES	0.00	5653.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
E GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	4219.77	0.00	0.00	1218.13	1339.95	1473.94	1621.34	0.00	0.00
DATA	17457.45	0.00	21251.90	19159.94	18936.64	543.01	12106.11	21291.59	21070.69

Capital Terceiros

Inv. Prévias Anos 1, 2 e 3

Royalties 10%

PARANA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PR6

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
INIZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
TIPO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TIPO	0.00	4029.20	4029.20	3161.03	2206.03	2830.44	1674.90	1314.01	917.03
TIPO	0.00	5177.72	21717.83	22586.00	23541.00	20877.59	21918.13	11830.52	12227.50
RENTA	0.00	0.00	1812.20	7601.24	7905.10	8239.35	7307.16	7671.35	4140.68
RENTA	0.00	5177.72	19905.63	14984.76	15635.90	12638.24	14610.97	4159.17	8086.82
INIZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
TIPO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INIZACAO	0.00	13150.72	28517.63	23596.76	24247.90	23289.24	25376.97	15397.17	19324.82
PROPRIO	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NETO	0.00	13150.72	28517.63	23596.76	24247.90	23289.24	25376.97	15397.17	19324.82
TIPO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SESTIVAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
ES	40292.00	0.00	0.00	0.00	16749.02	0.00	0.00	0.00	0.00
IAS	0.00	0.00	10102.00	10102.00	10102.00	0.00	0.00	0.00	0.00
NETO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
ES	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
E GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	8681.75	9549.92	10504.92	11555.41	3608.92	3969.82	4366.80
CAIXA	-17268.00	6770.72	9733.88	3944.84	0.00	3557.83	17048.05	11427.35	14958.02

MINEROPAR S/A - MINEROPAR
 FLUXO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	480.35	0.00	766.82	766.82	601.60	419.84	427.18	207.26	162.60
	12664.18	13144.53	15439.71	16077.71	16242.93	16424.69	14381.35	15070.27	15114.93
	4279.62	4432.46	4600.59	5403.90	5627.20	5685.03	5748.64	5033.47	5274.59
	8384.56	8712.07	10839.12	10673.81	10615.73	10739.66	8632.71	10036.80	9840.34
	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	19622.56	19950.07	19015.12	18211.81	18153.73	18277.66	18206.71	19141.80	18945.34
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	19622.56	19950.07	19015.12	18211.81	18153.73	18277.66	18206.71	19141.80	18945.34
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	7668.23	0.00	0.00	0.00	2072.60	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4803.48	0.00	0.00	1652.28	1817.51	1999.26	2199.18	446.58	491.24
	14819.08	0.00	19015.12	16559.53	16336.22	0.00	9266.53	18695.22	18454.10

PARANA S/A - MINEROPAR
 TIA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	6958.30	6958.30	3479.20
	27091.70	27091.70	13546.80
	2709.17	2709.17	1354.68
IZACAO	9105.00	9105.00	9105.00
ITAO	0.00	0.00	0.00
STINO	513.48	59.44	0.00
UTAVEL	15164.05	15218.09	3007.12
E RENDA	5290.23	5307.42	6406.82
UIDO	9873.82	9910.67	-3319.70
ECTACAO	9105.00	9105.00	9105.00
STAO	0.00	0.00	0.00
CAO	18978.82	19015.67	5785.30
OPRIO	0.00	0.00	0.00
ETO	18978.82	19015.67	5785.30
GIRO	0.00	0.00	4680.00
RESTOVAL	0.00	0.00	749.00
OS	0.00	0.00	0.00
IAS	0.00	0.00	0.00
ETO	0.00	0.00	0.00
ES	0.00	0.00	0.00
E GIRO	0.00	0.00	0.00
ES	540.37	594.40	0.00
CAIXA	18438.45	18421.27	11214.30

NA ATRATIVIDADE =) 15.00
 NUNDO PRESENTE =) 39269.46
 ENA DE RETORNO =) 41.93

Capital Terceiros

Inv. Prévias Anos 1, 2 e 3

Royalties 15%

PARAMA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	5218.80	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55
	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26
INVESTIMENTO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RECEITA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMADO	0.00	4029.20	4029.20	3161.03	2206.03	3033.97	1878.43	1473.69	1020.46
RECEITA	0.00	3612.08	18586.59	19454.76	20409.76	17542.02	18583.36	8539.60	8984.83
DE RENDA	0.00	0.00	1264.23	6505.31	6809.17	7143.42	6139.99	6504.18	2988.86
VALOR	0.00	3612.08	17322.36	12949.45	13600.59	10399.40	12443.37	2035.42	5995.97
RECEITA	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
RECEITA	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VALOR	0.00	11585.08	25934.36	21561.45	22212.59	21050.40	23209.37	13273.42	17233.97
VALOR	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VALOR	0.00	11585.08	25934.36	21561.45	22212.59	21050.40	23209.37	13273.42	17233.97
VALOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VALOR	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
VALOR	40292.00	0.00	0.00	0.00	18784.33	0.00	0.00	0.00	0.00
VALOR	0.00	0.00	10102.00	10102.00	10102.00	0.00	0.00	0.00	0.00
VALOR	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
VALOR	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
VALOR	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VALOR	0.00	0.00	8681.75	9549.92	10504.92	11555.41	4047.47	4452.22	4897.44
VALOR	-17268.00	5205.08	7150.61	1909.53	0.00	1318.99	14441.90	6021.20	12336.53

PARANA S/A - MINEROPAR
 DATA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
TIPO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BTIMO	538.72	0.00	968.31	968.31	759.67	530.16	746.52	468.82	367.80
UTAVEL	9474.57	10013.29	12106.98	12744.98	12953.62	13183.13	10930.77	11677.47	11778.49
E RENDA	3144.69	3316.10	3504.65	4237.44	4460.74	4533.77	4614.10	3825.77	4087.11
RDO	6329.88	6697.19	8602.33	8507.54	8492.88	8649.36	6316.67	7851.70	7691.38
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
TIPO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IZACAO	17567.88	17935.19	16778.33	16045.54	16030.88	16187.36	15890.67	16956.70	16796.38
OPRIZO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NETO	17567.88	17935.19	16778.33	16045.54	16030.88	16187.36	15890.67	16956.70	16796.38
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
ES	0.00	9683.11	0.00	0.00	0.00	4688.22	0.00	0.00	0.00
IAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
E GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	5387.19	0.00	0.00	2086.43	2295.07	2524.58	2777.03	1010.17	1111.19
CAIXA	12100.69	0.00	16778.33	13959.11	13735.81	0.00	6372.64	15946.53	15685.19

PARANA S/A - MINEROPAR
 DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	10437.45	10437.45	5218.80
	23612.55	23612.55	11807.20
	2361.26	2361.26	1180.72
MACRO	9105.00	9105.00	9105.00
DO	0.00	0.00	0.00
FINO	256.69	134.45	0.00
INTEL	11889.60	12011.84	1521.48
INDA	4122.47	4161.36	4736.66
	7767.13	7850.48	-3215.18
MACAO	9105.00	9105.00	9105.00
DO	0.00	0.00	0.00
DO	16872.13	16955.48	5889.82
DO	0.00	0.00	0.00
	16872.13	16955.48	5889.82
DO	0.00	0.00	4680.00
DO	0.00	0.00	749.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
DO	0.00	0.00	0.00
	1222.31	1344.54	0.00
DO	15649.82	15610.94	11318.82

ATIVIDADE = > 15.00
 DO PRESENTE = > 27077.38
 DE RETORNO = > 32.87

Capital Terceiros

Inv. Prévias Anos 1, 2, 3 e 4

Royalties 5%

PARANA S/A - MINEROPAR
 TIPO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRB

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	0.00	20028.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
IZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
TAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
STINDO	0.00	4029.20	4029.20	3161.03	2206.03	2374.31	1371.44	1108.83	787.07
UTAVEL	0.00	6743.36	24849.06	25717.23	26672.23	24464.95	25352.82	15166.93	15488.69
RENDA	0.00	0.00	2360.18	8697.17	9001.03	9335.28	8562.73	8873.49	5308.43
UDO	0.00	6743.36	22488.88	17020.06	17671.20	15129.67	16790.09	6293.44	10180.26
EDIACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ANAO	0.00	14716.36	31100.88	25632.06	26283.20	25780.67	27556.09	17531.44	21418.26
MPRTO	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NETO	0.00	14716.36	31100.88	25632.06	26283.20	25780.67	27556.09	17531.44	21418.26
OTRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
IAS	40292.00	0.00	0.00	0.00	12187.72	1526.74	0.00	0.00	0.00
IAS	0.00	0.00	7576.00	7576.00	7576.00	7576.00	0.00	0.00	0.00
ETO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
ES	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
E BTRQ	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	8681.75	9549.92	10504.92	11555.41	2626.10	3217.68	3539.44
CAIXA	-17268.00	8336.36	14843.13	8506.14	0.00	0.00	20209.99	14313.76	17878.82

MINERA S/A - MINEROPAR
 DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85
	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09
MACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IND	433.12	43.79	613.11	613.11	481.00	335.69	175.84	0.00	0.00
MEL	15842.64	16231.97	18724.65	19362.65	19494.76	19640.07	17763.92	18408.76	18408.76
REDA	5421.04	5544.92	5681.19	6553.63	6776.93	6823.17	6874.02	6217.37	6443.07
	10421.60	10687.05	13043.46	12809.02	12717.83	12816.90	10889.90	12191.39	11965.69
MACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MACAO	21659.60	21925.05	21219.46	20347.02	20255.83	20354.90	20463.90	21296.39	21070.69
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
MACAO	21659.60	21925.05	21219.46	20347.02	20255.83	20354.90	20463.90	21296.39	21070.69
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACTUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	6131.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
ORD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3893.39	437.86	0.00	1321.08	1453.18	1598.50	1758.35	0.00	0.00
MACAO	17766.21	0.00	21219.46	19025.94	18802.65	405.40	11964.55	21296.39	21070.69

Capital Terceiros

Inv. Prévias Anos 1, 2, 3 e 4

Royalties 10%

MINERAIS DO PARANA S/A - MINEROPAR

FLUXO DE CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

ANO	-1	0	1	2	3	4	5	6
RECEITA	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
CUSTO	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00
ROYALTIES	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
LUCRO BRUTO	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70
ENC. DIVERSOS	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17
DEP./AMORTIZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00
COTA EXAUSTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
JRS. EMPRESTIMO	0.00	4029.20	4029.20	3161.03	2206.03	2577.84	1798.06	1492.00
LUCRO TRIBUTAVEL	0.00	5177.72	21717.83	22586.00	23541.00	21130.19	21794.17	11652.13
IMPOSTO DE RENDA	0.00	0.00	1812.20	7601.24	7905.10	8239.35	7395.57	7627.86
LUCRO LIQUIDO	0.00	5177.72	19905.63	14984.76	15635.90	12890.84	14398.60	4024.17
FUNDO DEPRECIACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00
FUNDO EXAUSTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FLUXO OPERACAO	0.00	13150.72	28517.63	23596.76	24247.90	23541.84	25164.60	15262.17
CAPITAL PROPRIO	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAIXA PROJETO	0.00	13150.72	28517.63	23596.76	24247.90	23541.84	25164.60	15262.17
REC. CAP. GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
REC. VAL. RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00
EMPRESTIMOS	40292.00	0.00	0.00	0.00	14223.02	3765.57	0.00	0.00
INV. PREVIAS	0.00	0.00	7576.00	7576.00	7576.00	7576.00	0.00	0.00
INV. PROJETO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00
REINVERSOES	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00
CAPITAL DE GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AMORTIZACOES	0.00	0.00	8681.75	9549.92	10504.92	11555.41	3064.65	4182.00
FLUXO DE CAIXA	-17268.00	6770.72	12259.88	6470.84	0.00	0.00	17379.95	11079.69

Continua...

BO PARANA S/A - MINEROPAR
 LIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
TO	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
OS	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	614.07	107.99	880.93	880.93	691.12	482.32	492.76	240.12	188.39
OUTAVEL	12530.46	13036.54	15325.60	15963.60	16153.41	16362.21	14315.77	15037.41	15089.14
DE RENDA	4224.63	4385.66	4562.79	5363.96	5587.26	5653.69	5726.77	5010.52	5263.09
UIDO	8305.83	8650.88	10762.81	10599.64	10566.15	10708.52	8589.00	10026.89	9826.05
PRECIACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
USTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ONCAO	19543.83	19888.88	18938.81	18137.64	18104.15	18246.52	18163.00	19131.89	18931.05
PROPRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
QUETO	19543.83	19888.88	18938.81	18137.64	18104.15	18246.52	18163.00	19131.89	18931.05
BIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
OS	0.00	8809.35	0.00	0.00	0.00	2401.25	0.00	0.00	0.00
RIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DES	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DES	5060.80	1079.93	0.00	1898.16	2087.97	2296.77	2526.45	517.40	569.14
CAIXA	14483.03	0.00	18938.81	16239.48	16016.18	0.00	8895.55	18614.49	18361.91

PARANA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	6958.30	6958.30	3479.20
	27091.70	27091.70	13546.80
	2709.17	2709.17	1354.68
INIZIACAO	9105.00	9105.00	9105.00
FIN	0.00	0.00	0.00
RENTAL	131.47	68.87	0.00
RENTAL	15146.06	15208.66	3087.12
RENTAL	5281.20	5301.12	6403.52
RENTAL	9864.86	9907.54	-3316.40
RENTAL	9105.00	9105.00	9105.00
RENTAL	0.00	0.00	0.00
RENTAL	18969.86	19012.54	5788.60
RENTAL	0.00	0.00	0.00
RENTAL	18969.86	19012.54	5788.60
RENTAL	0.00	0.00	4680.00
RENTAL	0.00	0.00	749.00
RENTAL	0.00	0.00	0.00
RENTAL	0.00	0.00	0.00
RENTAL	0.00	0.00	0.00
RENTAL	0.00	0.00	0.00
RENTAL	0.00	0.00	0.00
RENTAL	626.05	688.66	0.00
RENTAL	18343.81	18323.88	11217.60

RENTAL ATRATIVIDADE =) 15.00
 RENTAL PRESENTE =) 40676.02
 RENTAL DE RETORNO =) 45.24

Capital Terceiros

Inv. Prévias Anos 1, 2, 3 e 4

Royalties 15%

PARAMA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	5218.80	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55
	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26
ZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
CO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TIND	0.00	4029.20	4029.20	3161.03	2206.03	2781.37	2226.27	1875.95	1361.22
TAVEL	0.00	3612.08	18586.59	19454.76	20409.76	17795.42	18235.52	8137.34	8652.07
RENDA	0.00	0.00	1264.23	6505.31	6809.17	7143.42	6228.40	6382.43	2848.07
CO	0.00	3612.08	17322.36	12949.45	13600.59	10652.00	12007.12	1754.91	5004.00
LIACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
TAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CO	0.00	11585.08	25934.36	21561.45	22212.59	21303.00	22773.12	12992.91	17042.00
PRIO	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TO	0.00	11585.08	25934.36	21561.45	22212.59	21303.00	22773.12	12992.91	17042.00
SIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SSIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
S	40292.00	0.00	0.00	0.00	16258.33	6004.41	0.00	0.00	0.00
S	0.00	0.00	7576.00	7576.00	7576.00	7576.00	0.00	0.00	0.00
TO	52080.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
BTRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	8681.75	9549.92	10504.92	11555.41	3503.20	5147.29	5662.02
MIXA	-17268.00	5205.08	9676.61	4435.53	0.00	0.00	14549.92	7845.62	11379.98

MINEROPAR S/A - MINEROPAR
 DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
CAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NO	795.03	172.20	1148.76	1148.76	901.24	628.96	850.25	520.79	408.58
NEL	9218.26	9841.09	11926.53	12564.53	12812.05	13084.33	10827.04	11625.50	11737.71
BDA	3028.22	3226.39	3444.38	4174.29	4397.59	4484.22	4579.52	3789.46	4068.93
	6190.04	6614.70	8482.15	8390.24	8414.46	8600.11	6247.52	7836.04	7668.78
CAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NO	17428.04	17852.70	16658.15	15928.24	15952.46	16138.11	15821.52	16941.04	16773.78
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NO	17428.04	17852.70	16658.15	15928.24	15952.46	16138.11	15821.52	16941.04	16773.78
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	11487.61	0.00	0.00	0.00	5207.94	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
S	6228.22	1722.01	0.00	2475.24	2722.77	2995.05	3294.55	1122.16	1234.37
LIXA	11199.82	0.00	16658.15	13453.00	13229.69	0.00	5785.97	15818.88	15539.41

IND PARANA S/A - MINEROPAR
 TIPO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	10437.45	10437.45	5218.00
RENTAL	23612.55	23612.55	11807.20
RENTAL	2361.26	2361.26	1180.72
RENTAL	9105.00	9105.00	9105.00
RENTAL	0.00	0.00	0.00
RENTAL	285.14	149.36	0.00
RENTAL	11861.15	11996.93	1521.48
RENTAL	4108.20	4151.40	4731.45
RENTAL	7752.95	7845.53	-3209.97
RENTAL	9105.00	9105.00	9105.00
RENTAL	0.00	0.00	0.00
RENTAL	16857.95	16950.53	5895.03
RENTAL	0.00	0.00	0.00
RENTAL	16857.95	16950.53	5895.03
RENTAL	0.00	0.00	4680.00
RENTAL	0.00	0.00	749.00
RENTAL	0.00	0.00	0.00
RENTAL	0.00	0.00	0.00
RENTAL	0.00	0.00	0.00
RENTAL	0.00	0.00	0.00
RENTAL	0.00	0.00	0.00
RENTAL	1357.81	1493.59	0.00
RENTAL	15500.14	15456.94	11324.03

RENTAL ATRATIVIDADE =) 15.00
 RENTAL PRESENTE =) 28756.36
 RENTAL DE RETORNO =) 35.95

Capital Terceiros

Inv. Prévias Anos 1, 2, 3, 4 e 5

Royalties 5%

MINEROPAR S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

X 1.000

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	0.00	20828.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	4029.20	4029.20	3161.03	2206.03	2222.81	1067.27	837.31	584.34
	0.00	6743.36	24849.06	25717.23	26672.23	24616.45	25656.99	15438.45	15691.42
	0.00	0.00	2360.18	8697.17	9001.03	9335.28	8615.76	8979.95	5403.46
	0.00	6743.36	22488.88	17020.06	17671.20	15281.17	17041.23	6458.50	10287.96
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	14716.36	31100.88	25632.06	26283.20	25932.17	27807.23	17696.50	21525.96
	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	14716.36	31100.88	25632.06	26283.20	25932.17	27807.23	17696.50	21525.96
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
	40292.00	0.00	0.00	0.00	10672.72	0.00	0.00	0.00	0.00
	0.00	0.00	6061.00	6061.00	6061.00	6061.00	6061.00	0.00	0.00
	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	8681.75	9549.92	10504.92	11555.41	2299.66	2529.63	2782.59
	-17268.00	8336.36	16358.13	10021.14	0.00	139.76	14726.57	15166.87	18743.37

DO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
TO	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85
OSIS	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
USTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	306.08	0.00	569.39	569.39	446.71	311.75	163.30	0.00	0.00
BITAVEL	15969.68	16275.76	18768.37	19406.37	19529.05	19664.01	17776.46	18408.76	18408.76
RE RENDA	5492.00	5589.39	5696.52	6568.93	6792.23	6835.17	6882.40	6221.76	6443.07
UIDO	10477.68	10686.37	13071.85	12837.44	12736.82	12828.84	10894.06	12187.00	11965.69
PECTACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
USTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERCAO	21715.68	21924.37	21247.85	20375.44	20274.82	20366.84	20468.06	21292.00	21070.69
PROPRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UETO	21715.68	21924.37	21247.85	20375.44	20274.82	20366.84	20468.06	21292.00	21070.69
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
INDS	0.00	5693.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OSIS	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OSIS	3060.85	0.00	0.00	1226.88	1349.56	1484.52	1632.97	0.00	0.00
CAIXA	18654.83	0.00	21247.85	19148.56	18925.26	531.32	12094.09	21292.00	21070.69

PARANA S/A - MINEROPAR
 DIA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	3479.15	3479.15	1739.60
	30570.85	30570.85	15286.40
	3057.09	3057.09	1528.64
IZACAO	9105.00	9105.00	9105.00
RAO	0.00	0.00	0.00
BTMO	0.00	0.00	0.00
OTAVEL	18408.76	18408.76	4652.76
RENDA	6443.07	6443.07	8071.54
DO	11965.69	11965.69	-3418.78
IZACAO	9105.00	9105.00	9105.00
STAO	0.00	0.00	0.00
CAO	21070.69	21070.69	5686.22
OPRIO	0.00	0.00	0.00
LETO	21070.69	21070.69	5686.22
BIND	0.00	0.00	4680.00
RESTOUMAL	0.00	0.00	749.00
OS	0.00	0.00	0.00
ZAS	0.00	0.00	0.00
STU	0.00	0.00	0.00
ES	0.00	0.00	0.00
E GIRO	0.00	0.00	0.00
DES	0.00	0.00	0.00
CATXA	21070.69	21070.69	11115.22

BA ATRATIVIDADE =) 15.00
 NUDO PRESENTE =) 53386.29
 BMA DE RETORNO =) 57.26

Capital Terceiros

Inv. Prévias Anos 1, 2, 3, 4 e 5

Royalties 10%

MINEROPAR S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
INVESTIMENTO	0.00	19088.00	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
DESEMBOLSAMENTO	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
DESEMBOLSAMENTO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
DESEMBOLSAMENTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESEMBOLSAMENTO	0.00	4029.20	4029.20	3161.03	2206.03	2426.34	1400.71	1206.89	860.46
DESEMBOLSAMENTO	0.00	5177.72	21717.83	22586.00	23541.00	21281.69	22112.32	11937.64	12284.07
DESEMBOLSAMENTO	0.00	0.00	1812.20	7601.24	7905.10	8239.35	7440.59	7739.31	4178.17
DESEMBOLSAMENTO	0.00	5177.72	19905.63	14984.76	15635.90	13042.34	14663.73	4198.33	8105.90
DESEMBOLSAMENTO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
DESEMBOLSAMENTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESEMBOLSAMENTO	0.00	13150.72	28517.63	23596.76	24247.90	23693.34	25429.73	15436.33	19343.90
DESEMBOLSAMENTO	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESEMBOLSAMENTO	0.00	13150.72	28517.63	23596.76	24247.90	23693.34	25429.73	15436.33	19343.90
DESEMBOLSAMENTO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESEMBOLSAMENTO	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
DESEMBOLSAMENTO	40292.00	0.00	0.00	0.00	12708.02	2099.07	0.00	0.00	0.00
DESEMBOLSAMENTO	0.00	0.00	6061.00	6061.00	6061.00	6061.00	6061.00	0.00	0.00
DESEMBOLSAMENTO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
DESEMBOLSAMENTO	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
DESEMBOLSAMENTO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DESEMBOLSAMENTO	0.00	0.00	8681.75	9549.92	10504.92	11555.41	2738.21	3464.32	3810.75
CAIXA	-17268.00	6770.72	13774.88	7985.84	0.00	0.00	11910.52	11972.01	15533.15

PARANA S/A - MINEROPAR
 FLUXO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	479.39	60.20	833.08	833.08	653.57	456.12	465.26	226.34	177.57
	12665.14	13084.33	15373.45	16011.45	16190.96	16388.41	14343.27	15051.19	15099.96
	4299.42	4432.80	4579.52	5380.71	5604.01	5666.84	5735.94	5020.14	5267.92
	8365.72	8651.53	10793.93	10630.74	10586.95	10721.57	8667.33	10031.05	9832.04
	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	19603.72	19889.53	18969.93	18168.74	18124.95	18259.57	18181.33	19136.05	18937.04
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	19603.72	19889.53	18969.93	18168.74	18124.95	18259.57	18181.33	19136.05	18937.04
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	8330.77	0.00	0.00	0.00	2263.43	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4191.82	602.00	0.00	1795.04	1974.54	2172.00	2389.20	487.70	536.47
	15411.90	0.00	18969.93	16373.70	16150.41	0.00	9051.13	18648.35	18400.57

BO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	6958.30	6958.30	3479.20
TO	27091.70	27091.70	13546.80
OS	2709.17	2709.17	1354.68
UTIZACAO	9105.00	9105.00	9105.00
STAO	0.00	0.00	0.00
ESTIMO	123.93	64.91	0.00
OUTAVEL	15153.60	15212.62	3087.12
RE RENDA	5284.99	5303.76	6404.91
UNDO	9868.61	9908.86	-3317.79
VEDIACAO	9105.00	9105.00	9105.00
STAO	0.00	0.00	0.00
BRACAO	18973.61	19013.86	5787.21
PROPRIO	0.00	0.00	0.00
LETO	18973.61	19013.86	5787.21
GIRO	0.00	0.00	4680.00
RESTOJAL	0.00	0.00	749.00
OS	0.00	0.00	0.00
VIAS	0.00	0.00	0.00
LETO	0.00	0.00	0.00
ES	0.00	0.00	0.00
RE GIRO	0.00	0.00	0.00
DES	590.12	649.13	0.00
CAIXA	18383.49	18364.73	11216.21

UMA ATRATIVIDADE =) 15.00
 UNDO PRESENTE =) 41433.98
 SEMANA DE RETORNO =) 47.20

Capital Terceiros

Inv. Prévias Anos 1, 2, 3, 4 e 5

Royalties 15%

BO PARANA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	5218.00	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55
	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	4029.20	4029.20	3161.03	2206.03	2629.87	1908.12	1590.45	1147.53
	0.00	3612.08	18586.59	19454.76	20409.76	17946.92	18553.67	8422.84	8865.76
	0.00	0.00	1264.23	6505.31	6809.17	7143.42	6281.42	6493.78	2947.99
	0.00	3612.08	17322.36	12949.45	13600.59	10803.50	12272.25	1929.06	5917.77
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	11585.08	25934.36	21561.45	22212.59	21454.50	23038.25	13167.06	17155.77
	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	11585.08	25934.36	21561.45	22212.59	21454.50	23038.25	13167.06	17155.77
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
	40292.00	0.00	0.00	0.00	14743.33	4337.91	0.00	0.00	0.00
	0.00	0.00	6061.00	6061.00	6061.00	6061.00	6061.00	0.00	0.00
	52800.00	6300.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	8681.75	9549.92	10504.92	11555.41	3176.76	4429.12	4872.04
	-17268.00	5205.08	11191.61	5950.53	0.00	0.00	9080.49	8737.94	12283.73

BO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
TO	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
OS	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
USTAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	660.34	124.41	1100.90	1100.90	863.69	602.76	822.74	507.01	397.76
UTAVEL	9352.95	9088.88	11974.39	12612.39	12049.60	13110.53	10854.55	11639.28	11748.53
RE RENDA	3103.02	3273.53	3461.11	4191.04	4414.34	4497.36	4588.69	3799.09	4073.75
UIDO	6249.93	6615.35	8513.28	8421.35	8435.26	8613.17	6265.86	7840.19	7674.78
RECIACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
USTAD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ERACAO	17487.93	17053.35	16689.28	15959.35	15973.26	16151.17	15839.86	16945.19	16779.78
PROPRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UETO	17487.93	17053.35	16689.28	15959.35	15973.26	16151.17	15839.86	16945.19	16779.78
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
OS	0.00	11009.03	0.00	0.00	0.00	5070.10	0.00	0.00	0.00
VIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	5359.24	1244.08	0.00	2372.12	2609.34	2870.27	3157.30	1092.46	1201.70
CAIXA	12128.69	0.00	16689.28	13587.23	13363.92	0.00	5941.56	15852.73	15578.00

DO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	10437.45	10437.45	5218.80
INTO	23612.55	23612.55	11807.20
OSOS	2361.26	2361.26	1180.72
UTILIZACAO	9105.00	9105.00	9105.00
ESTAD	0.00	0.00	0.00
DESTINO	277.59	145.41	0.00
MODIFICAVEL	11868.70	12000.88	1521.48
DE RENDA	4111.99	4154.05	4732.83
QUIDO	7756.71	7846.83	-3211.35
PRECIACAO	9105.00	9105.00	9105.00
INSTAD	0.00	0.00	0.00
REIACAO	16861.71	16951.83	5893.65
PROPRIO	0.00	0.00	0.00
QUETO	16861.71	16951.83	5893.65
DE GIRO	0.00	0.00	4680.00
RESIDUAL	0.00	0.00	749.00
OS	0.00	0.00	0.00
VIAS	0.00	0.00	0.00
LETO	0.00	0.00	0.00
DES	0.00	0.00	0.00
DE GIRO	0.00	0.00	0.00
DES	1321.87	1454.06	0.00
CAIXA	15539.84	15497.77	11322.65

INDA ATRATIVIDADE =) 15.00
 RUIDO PRESENTE =) 29514.33
 RENA DE RETORNO =) 37.49

Capital Próprio
Sem Inv. Prévias
Royalties 5%

CO PARANA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	0.00	20828.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	10772.56	20878.26	20878.26	20878.26	26839.26	26724.26	16275.76	16275.76
	0.00	0.00	3770.40	10107.39	10107.39	10107.39	9393.74	9353.49	5696.52
	0.00	10772.56	25107.86	18770.87	18770.87	16731.87	17330.52	6922.27	10579.24
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	18745.56	33719.86	27382.87	27382.87	27382.87	28096.52	18160.27	21817.24
PROPRIO	57560.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OBJETO	0.00	18745.56	33719.86	27382.87	27382.87	27382.87	28096.52	18160.27	21817.24
DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
INDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OBJETO	52800.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
DES	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
DE GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
INDS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAIXA	-57560.00	12365.56	33719.86	27382.87	6992.87	19206.87	23376.52	18160.27	21817.24

DE PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85
	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09
	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	580.11	0.00	0.00	0.00	0.00	0.00	0.00
	16275.76	16275.76	18757.65	19975.76	19975.76	19975.76	17939.76	18408.76	18408.76
	5696.52	5696.52	5696.52	6565.18	6991.52	6991.52	6991.52	6278.92	6443.07
	10579.24	10579.24	13061.13	13410.58	12984.24	12984.24	10948.24	12129.84	11965.69
	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21817.24	21817.24	21237.13	20948.58	20522.24	20522.24	20522.24	21234.84	21070.69
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	21817.24	21817.24	21237.13	20948.58	20522.24	20522.24	20522.24	21234.84	21070.69
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
	0.00	5801.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	5801.06	0.00	0.00	0.00	0.00	0.00	0.00
	21817.24	0.00	15436.07	20948.58	20522.24	2171.24	13781.24	21234.84	21070.69

DO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUDRITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
S	3479.15	3479.15	1739.60
TO	30570.85	30570.85	15286.40
SUS	3057.09	3057.09	1528.64
RTIZACAO	9105.00	9105.00	9105.00
USTAO	0.00	0.00	0.00
RESTIMO	0.00	0.00	0.00
TRUTAVEL	18408.76	18408.76	4652.76
RE RENDA	6443.07	6443.07	8071.54
NUIDO	11965.69	11965.69	-3418.78
PRECIACAO	9105.00	9105.00	9105.00
USTAO	0.00	0.00	0.00
ERACAO	21070.69	21070.69	5686.22
PROPRIO	0.00	0.00	0.00
OBJETO	21070.69	21070.69	5686.22
DE GIRO	0.00	0.00	4680.00
RESIDUAL	0.00	0.00	749.00
OS	0.00	0.00	0.00
VIAS	0.00	0.00	0.00
LETO	0.00	0.00	0.00
DES	0.00	0.00	0.00
DE GIRO	0.00	0.00	0.00
DES	0.00	0.00	0.00
CAIXA	21070.69	21070.69	11115.22

MINA ATRATIVIDADE =) 15.00
 LQUIDO PRESENTE =) 61167.98
 TERNA DE RETORNO =) 34.68

Capital Próprio
Sem Inv. Prévias
Royalties 10%

BO PARAMA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
TO	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
SOS	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
IZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTAVEL	0.00	9206.92	25747.03	25747.03	25747.03	23708.03	23593.03	13144.53	13144.53
E RENDA	0.00	0.00	3222.42	9011.46	9011.46	9011.46	8297.81	8257.56	4600.59
UDO	0.00	9206.92	22524.61	16735.57	16735.57	14696.57	15295.22	4886.97	8543.94
RECIAAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
USTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ENCAAO	0.00	17179.92	31136.61	25347.57	25347.57	25347.57	26061.22	16124.97	19781.94
PROPRIO	57560.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NETO	0.00	17179.92	31136.61	25347.57	25347.57	25347.57	26061.22	16124.97	19781.94
BIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
OS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NETO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
ES	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
E BIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DES	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAIXA	-57560.00	10799.92	31136.61	25347.57	4957.57	17171.57	21341.22	16124.97	19781.94

CO PARANA S/A - MINEROPAR
 TIPO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
TO	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
OS	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	0.00	783.64	0.00	0.00	0.00	0.00	0.00	0.00
INTAVEL	13144.53	13144.53	15422.89	16844.53	16844.53	16844.53	14008.53	15277.53	15277.53
E RENDA	4600.59	4600.59	4600.59	5398.01	5895.59	5895.59	5895.59	5182.99	5347.14
UITO	8543.94	8543.94	10822.30	11446.52	10948.94	10948.94	8912.94	10094.54	9930.39
RECIACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IZACAO	19781.94	19781.94	18998.30	18984.52	18486.94	18486.94	18486.94	19199.54	19035.39
PRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ETO	19781.94	19781.94	18998.30	18984.52	18486.94	18486.94	18486.94	19199.54	19035.39
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESONAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
OS	0.00	7836.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	3068.00	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
E GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OS	0.00	0.00	7836.36	0.00	0.00	0.00	0.00	0.00	0.00
CAIXA	19781.94	0.00	11161.94	18984.52	18486.94	135.94	11745.94	19199.54	19035.39

BO PARANA S/A - MINEROPAR
 NOME DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	6958.30	6958.30	3479.20
UNDO	27091.70	27091.70	13546.00
OSOS	2709.17	2709.17	1354.68
RTIZACAO	9105.00	9105.00	9105.00
USTAO	0.00	0.00	0.00
ESTIMO	0.00	0.00	0.00
IMUTAVEL	15277.53	15277.53	3087.12
DE RENDA	5347.14	5347.14	6427.63
UIDO	9930.39	9930.39	-3340.51
PRECIACAO	9105.00	9105.00	9105.00
USTAO	0.00	0.00	0.00
ERACAO	19035.39	19035.39	5764.49
PROPRIO	0.00	0.00	0.00
OBJETO	19035.39	19035.39	5764.49
GIRO	0.00	0.00	4680.00
RESIDUAL	0.00	0.00	749.00
OS	0.00	0.00	0.00
VIAS	0.00	0.00	0.00
OBJETO	0.00	0.00	0.00
ES	0.00	0.00	0.00
DE GIRO	0.00	0.00	0.00
ES	0.00	0.00	0.00
CAIXA	19035.39	19035.39	11193.49

UNA ATRATIVIDADE =) 15.00
 UIDO PRESENTE =) 48586.76
 ERNA DE RETORNO =) 30.85

Capital Próprio
Sem Inv. Prévias
Royalties 15%

DO PARANA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	5218.80	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55
	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	7641.28	22615.79	22615.79	22615.79	20576.79	20461.79	10013.29	10013.29
	0.00	0.00	2674.45	7915.53	7915.53	7915.53	7201.88	7161.63	3504.65
	0.00	7641.28	19941.34	14700.26	14700.26	12661.26	13259.91	2851.66	6508.64
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	15614.28	28553.34	23312.26	23312.26	23312.26	24025.91	14089.66	17746.64
PROPRIO	57560.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PROJETO	0.00	15614.28	28553.34	23312.26	23312.26	23312.26	24025.91	14089.66	17746.64
DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
PREVIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PREVIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PROJETO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
PREVIAS	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
DE GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PREVIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAIXA	-57560.00	9234.28	28553.34	23312.26	2922.26	15136.26	19305.91	14089.66	17746.64

CO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
TO	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
OS	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
ISTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	0.00	987.17	0.00	0.00	0.00	189.94	0.00	0.00
UTAVEL	10013.29	10013.29	12008.12	13713.29	13713.29	13713.29	11487.35	12146.29	12146.29
RE RENDA	3504.65	3504.65	3504.65	4230.84	4799.65	4799.65	4799.65	4020.57	4251.20
UIDO	6508.64	6508.64	8583.47	9482.45	8913.64	8913.64	6687.70	8125.72	7895.09
MECIACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
USTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ELACAO	17746.64	17746.64	16759.47	17020.45	16451.64	16451.64	16261.70	17230.72	17000.09
PROPRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UETO	17746.64	17746.64	16759.47	17020.45	16451.64	16451.64	16261.70	17230.72	17000.09
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
OS	0.00	9871.66	0.00	0.00	0.00	1899.36	0.00	0.00	0.00
VIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	9871.66	0.00	0.00	0.00	1899.36	0.00	0.00
CAIXA	17746.64	0.00	6887.81	17020.45	16451.64	0.00	7621.34	17230.72	17000.09

DO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA UDLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	10437.45	10437.45	5218.80
	23612.55	23612.55	11807.20
	2361.26	2361.26	1100.72
	9105.00	9105.00	9105.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	12146.29	12146.29	1521.48
	4251.20	4251.20	4783.72
	7895.09	7895.09	-3262.24
	9105.00	9105.00	9105.00
	0.00	0.00	0.00
	17000.09	17000.09	5842.76
	0.00	0.00	0.00
	17000.09	17000.09	5842.76
	0.00	0.00	4680.00
	0.00	0.00	749.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	0.00	0.00	0.00
	17000.09	17000.09	11271.76

TAXA ATRATIVIDADE =) 15.00
 PRECISO PRESENTE =) 36024.27
 TAXA DE RETORNO =) 27.00

Capital Terceiros
Sem Inv. Prévias
Royalties 5%

BO PARANA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	1739.60	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
	0.00	20828.40	41655.85	41655.85	41655.85	41655.85	41655.85	30570.85	30570.85
	0.00	2082.84	4165.59	4165.59	4165.59	4165.59	4165.59	3057.09	3057.09
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	4029.20	4029.20	3161.03	2206.03	1616.71	461.17	361.00	252.50
	0.00	6743.36	24849.06	25717.23	26672.23	25222.55	26263.09	15913.96	16023.26
	0.00	0.00	2360.18	8697.17	9001.03	9335.28	8827.89	9192.08	5569.89
	0.00	6743.36	22488.88	17020.06	17671.20	15887.27	17435.20	6721.88	10453.37
	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	14716.36	31100.88	25632.06	26283.20	26538.27	28201.20	17959.88	21691.37
PRÓPRIO	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PROJETO	0.00	14716.36	31100.88	25632.06	26283.20	26538.27	28201.20	17959.88	21691.37
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
DIAS	40292.00	0.00	0.00	0.00	4611.72	0.00	0.00	0.00	0.00
DIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DIAS	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
DIAS	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
DIAS	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DIAS	0.00	0.00	8681.75	9549.92	10504.92	11555.41	993.69	1093.06	1202.37
CAIXA	-17268.00	8336.36	22419.13	16082.14	0.00	6806.86	22487.51	16866.82	20489.00

DO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUDRITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
ES	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15	3479.15
INTO	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85	30570.85
ESOS	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09	3057.09
RTIZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
USTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESTINO	132.26	0.00	575.48	575.48	451.48	315.00	165.04	0.00	0.00
IBUTAVEL	16143.50	16275.76	18762.28	19400.28	19524.28	19660.68	17774.72	18408.76	18408.76
DE RENDA	5608.14	5650.23	5696.52	6566.00	6790.10	6833.50	6881.24	6221.15	6443.07
RUITO	10535.36	10625.53	13065.76	12833.48	12734.18	12827.18	10893.48	12187.61	11965.69
PRECIAAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
USTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CIACAO	21773.36	21063.53	21241.76	20371.48	20272.18	20365.18	20467.48	21292.61	21070.69
PROPRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UJETO	21773.36	21063.53	21241.76	20371.48	20272.18	20365.18	20467.48	21292.61	21070.69
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
OS	0.00	5754.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BIAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
DE GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
COES	1322.60	0.00	0.00	1239.98	1363.98	1500.38	1650.42	0.00	0.00
CAIXA	20450.76	0.00	21241.76	19131.50	18908.20	513.00	12076.06	21292.61	21070.69

BQ. PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	3479.15	3479.15	1739.60
OTO	30570.85	30570.85	15286.40
OSOS	3057.09	3057.09	1528.64
RTIZACAO	9105.00	9105.00	9105.00
STAO	0.00	0.00	0.00
RESTIMO	0.00	0.00	0.00
UTAVEL	18408.76	18408.76	4652.76
RE RENDA	6443.07	6443.07	8071.54
UIDO	11965.69	11965.69	-3418.78
PRECIACAO	9105.00	9105.00	9105.00
USTAD	0.00	0.00	0.00
ERACAO	21070.69	21070.69	5686.22
OPRIO	0.00	0.00	0.00
RETO	21070.69	21070.69	5686.22
GIRO	0.00	0.00	4680.00
RESIDUAL	0.00	0.00	749.00
OS	0.00	0.00	0.00
OTIAS	0.00	0.00	0.00
LETO	0.00	0.00	0.00
ES	0.00	0.00	0.00
DE GIRO	0.00	0.00	0.00
DES	0.00	0.00	0.00
CAIXA	21070.69	21070.69	11115.22

MA ATRATIVIDADE =) 15.00
 UIDO PRESENTE =) 70332.82
 ERNA DE RETORNO =) 74.19

Capital Terceiros
Sem Inv. Prévias
Royalties 10%

DATA : 10/11/87
FLUXO.PRG

CO PARANA S/A - MINEROPAR
CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	3479.20	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
NO	0.00	19088.80	38176.70	38176.70	38176.70	38176.70	38176.70	27091.70	27091.70
OS	0.00	1908.88	3817.67	3817.67	3817.67	3817.67	3817.67	2709.17	2709.17
UTILIZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
ESTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	4029.20	4029.20	3161.03	2206.03	1820.24	664.70	521.48	363.93
UTAVEL	0.00	5177.72	21717.83	22586.00	23541.00	21887.79	22928.33	12623.05	12780.60
E RENDA	0.00	0.00	1812.20	7601.24	7905.10	8239.35	7660.73	8024.92	4418.07
UNDO	0.00	5177.72	19905.63	14984.76	15635.90	13648.44	15267.60	4598.13	8362.53
RECIACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
ESTAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ACAO	0.00	13150.72	28517.63	23596.76	24247.90	24299.44	26033.60	15836.13	19600.53
PROPRIO	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NETO	0.00	13150.72	28517.63	23596.76	24247.90	24299.44	26033.60	15836.13	19600.53
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
OS	40292.00	0.00	0.00	0.00	6647.02	0.00	0.00	0.00	0.00
IAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NETO	52880.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
ES	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
E GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	8681.75	9549.92	10504.92	11555.41	1432.24	1575.46	1733.01
CAIXA	-17268.00	6770.72	19835.88	14046.84	0.00	4568.03	19881.36	14260.67	17867.52

CO PARANA S/A - MINEROPAR
 MIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30	6958.30
TO	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70	27091.70
SOS	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17	2709.17
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	190.63	0.00	776.96	776.96	609.55	425.40	433.01	210.18	164.89
MUTAVEL	12953.90	13144.53	15429.57	16067.57	16234.98	16419.13	14375.52	15067.35	15112.64
E RENDA	4473.21	4533.86	4600.59	5400.35	5623.65	5682.24	5746.70	5031.43	5273.57
IDO	8480.69	8610.67	10828.98	10667.22	10611.33	10736.89	8628.82	10035.92	9839.07
ECIACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CAAO	19718.69	19848.67	19004.98	18205.22	18149.33	18274.89	18202.82	19140.92	18944.07
OPRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ETO	19718.69	19848.67	19004.98	18205.22	18149.33	18274.89	18202.82	19140.92	18944.07
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIOUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
S	0.00	7769.63	0.00	0.00	0.00	2101.81	0.00	0.00	0.00
MS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
E GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	1906.31	0.00	0.00	1674.13	1841.54	2025.70	2228.26	452.08	498.17
MIXA	17812.38	0.00	19004.98	16531.09	16307.79	0.00	9233.56	10688.04	10445.90

DO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	6958.30	6958.30	3479.20
FO	27091.70	27091.70	13546.80
SOS	2709.17	2709.17	1354.68
ITIZACAO	9105.00	9105.00	9105.00
STAC	0.00	0.00	0.00
ESTIMO	115.08	60.28	0.00
MUTAVEL	15162.45	15217.25	3087.12
E RENDA	5289.42	5306.86	6406.53
BITO	9873.03	9910.39	-3319.41
RECTACAO	9105.00	9105.00	9105.00
STAC	0.00	0.00	0.00
ACAO	18978.03	19015.39	5785.59
PROPRIO	0.00	0.00	0.00
LETO	18978.03	19015.39	5785.59
GIRO	0.00	0.00	4680.00
RESIDUAL	0.00	0.00	749.00
S	0.00	0.00	0.00
IAS	0.00	0.00	0.00
ETO	0.00	0.00	0.00
ES	0.00	0.00	0.00
E GIRO	0.00	0.00	0.00
RES	547.98	602.78	0.00
CAIXA	18430.05	18412.61	11214.59

MA ATRATIVIDADE =) 15.00
 UNDO PRESENTE =) 58125.61
 RNA DE RETORNO =) 63.98

Capital Terceiros
Sem Inv. Prévias
Royalties 15%

NO PARANA S/A - MINEROPAR
LIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
FLUXO.PRG

	-1	0	1	2	3	4	5	6	7
	0.00	34792.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	0.00	12224.00	24448.00	24448.00	24448.00	24448.00	24448.00	35533.00	35533.00
	0.00	5218.00	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
TO	0.00	17349.20	34697.55	34697.55	34697.55	34697.55	34697.55	23612.55	23612.55
OS	0.00	1734.92	3469.76	3469.76	3469.76	3469.76	3469.76	2361.26	2361.26
IZACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	0.00	4029.20	4029.20	3161.03	2206.03	2023.77	868.23	681.15	475.37
UTAVEL	0.00	3612.08	10586.59	19454.76	20409.76	10553.02	19593.56	9332.14	9537.92
E RENDA	0.00	0.00	1264.23	6505.31	6809.17	7143.42	6493.56	6857.75	3266.25
UO	0.00	3612.08	17322.36	12949.45	13600.59	11409.60	13100.00	2474.39	6271.67
ECIACAO	0.00	7973.00	8612.00	8612.00	8612.00	10651.00	10766.00	11238.00	11238.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BACAO	0.00	11585.08	25934.36	21561.45	22212.59	22060.60	23866.00	13712.39	17509.67
OPRIO	17268.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NETO	0.00	11585.08	25934.36	21561.45	22212.59	22060.60	23866.00	13712.39	17509.67
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	0.00	0.00	0.00	0.00	749.00	0.00	0.00	0.00
ES	40292.00	0.00	0.00	0.00	8682.33	0.00	0.00	0.00	0.00
IAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ETO	52800.00	6380.00	0.00	0.00	20390.00	1435.00	4720.00	0.00	0.00
ES	0.00	0.00	0.00	0.00	0.00	7490.00	0.00	0.00	0.00
E GIRO	4680.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	0.00	8681.75	9549.92	10504.92	11555.41	1070.79	2057.87	2263.65
CAIXA	-17268.00	5205.08	17252.61	12011.53	0.00	2329.19	17275.21	11654.52	15246.02

PARAMA S/A - MINEROPAR
 TIPO DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	8	9	10	11	12	13	14	15	16
	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00	69583.00
	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00	35533.00
	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45	10437.45
TO	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55	23612.55
OS	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26	2361.26
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ESTIMO	249.00	0.00	978.45	978.45	767.62	535.71	752.35	471.74	370.09
UTAVEL	9764.29	10013.29	12096.84	12734.84	12945.67	13177.58	10924.94	11674.55	11776.20
RENTA	3338.27	3417.50	3504.65	4233.89	4457.19	4530.98	4612.15	3823.73	4086.09
TO	6426.02	6595.79	8592.19	8500.95	8488.48	8646.60	8312.79	7850.82	7690.11
IZACAO	11238.00	11238.00	8176.00	7538.00	7538.00	7538.00	9574.00	9105.00	9105.00
STAO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IZACAO	17664.02	17833.79	16768.19	16038.95	16026.48	16184.60	15886.79	16955.82	16795.11
PRIO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TO	17664.02	17833.79	16768.19	16038.95	16026.48	16184.60	15886.79	16955.82	16795.11
GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RESIDUAL	0.00	3068.70	0.00	0.00	0.00	2039.00	749.00	0.00	0.00
OS	0.00	9784.51	0.00	0.00	0.00	4717.41	0.00	0.00	0.00
IAS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ETO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ES	0.00	30687.00	0.00	0.00	0.00	20390.00	7490.00	0.00	0.00
E GIRO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DES	2490.02	0.00	0.00	2108.28	2319.10	2551.01	2806.12	1016.46	1118.11
CAIXA	15174.00	0.00	16768.19	13930.67	13707.38	0.00	6339.67	15939.36	15677.00

BO PARANA S/A - MINEROPAR
 CAIXA DO PROJETO : FLUORITA VOLTA GRANDE

DATA : 10/11/87
 FLUXO.PRG

	17	18	19
	69583.00	69583.00	34792.00
	35533.00	35533.00	17766.00
	10437.45	10437.45	5218.00
TO	23612.55	23612.55	11807.20
OS	2361.26	2361.26	1100.72
ITIZACAO	9105.00	9105.00	9105.00
STAO	0.00	0.00	0.00
ESTIMO	258.28	135.29	0.00
UTAVEL	11808.01	12011.00	1521.48
E REMOA	4121.67	4160.00	4736.37
UIDO	7766.34	7850.20	-3214.89
RECIACAO	9105.00	9105.00	9105.00
STAO	0.00	0.00	0.00
ACAO	16871.34	16955.20	5890.11
OPRTO	0.00	0.00	0.00
NETO	16871.34	16955.20	5890.11
GIRO	0.00	0.00	4680.00
RESTIDUAL	0.00	0.00	749.00
OS	0.00	0.00	0.00
IAS	0.00	0.00	0.00
ETO	0.00	0.00	0.00
EB	0.00	0.00	0.00
E GIRO	0.00	0.00	0.00
UES	1229.92	1352.91	0.00
CAIXA	15641.42	15602.29	11319.11

INA ATRATIVIDADE =) 15.00
 UIDO PRESENTE =) 45933.52
 ERNA DE RETORNO =) 53.76