INTERSTAR MINING GROUP INC.

TAMBAO MANGANESE MINE DEVELOPMENT

(Burkina Faso - West Africa)

BASE CASE STUDY

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01 - INTRODUCTION

The complete feasability report established by InterStar Mining Group Inc. delt with the technical and financial feasability of 45 different production alternatives. We considered in this report 5 different modes of transport for each of the 3 planned yearly production rates at 3 different ore sales prices.

To facilitate the overall project appraisal, we have now established in the following document a " base case scenario " that considers one of the more likely production alternatives. The main parameters of this selected alternative are as follows

Yearly production rate	: 140,000 t of lump ore
Transport mode	: Trucking to Kaya, Railway to Abidjan,
Yearly inflation rate for both operating and invest--ment costs	: 4.5 %
Yearly ore price increase	: 7.0 %
Ore price in 1992	: US $ 2.10/MTU FOB
(Prices are actually in the 2.10 to 2.25 US $ range)	
Interest rate	: LIBOR +1 = 11 %
Amortization	: 5 years straight
Exchange rate	: FCFA 275/ 1 US $

Investment costs are based upon recent quotations from local and overseas suppliers. The labor rates are those published in Burkina Faso for the construction industry and the taxes, fees and dues were calculated according to the " Mining Investment

Convention " signed by Interstar and the governement of Burkina Faso and other relevant government publications.

Contrary to the feasability report, we have applied the withhholding tax starting at the date of possible dividend payments. This calculation is more in tune with the amendment possibilities contained already in the convention.

The following is a short general description of the project. For more details the reader should consult the existing complete feasability report on the Tambao project as established by InterStar Mining Group Inc..

2.0 - ORE RESERVE BASE

The Tambao manganese ore deposit was explored since 1960 and the various exploration activities undetaken since this period by reputable international organizations and companies have delineated the following ROM (run of mine) ores :

Proven reserves	8,960,000 tons
Probable reserves	9,756,000 tons
Possible reserves	610,800 tons
Total	19,336,800 tons

About 65 % of the reserves are Layer III ores, i.e. ores containing over 52 % Mn. At the planned production rate of 140,000 tons/year, the reserves permit for a multi-decade operation.

3.0 - MINING

Part of the mineable reserves is composed of detritic (talus) ores, deposited on the southern flank of the main hill deposit. In order to minimize the start up costs of the mine it is planned to excavate the talus ore for the first 3 to 4 years of operations. Beginning in production year 4, the talus ore production will be gradually phased out and replaced by primary ore production from the main hill deposit, specifically Layer III ores.

Talus ore mining will be carried out through downslope pushing by bulldozer to the toe of the hill, loading by hydraulic shovel onto off-highway dumpers and transport of the ore to wash plant.

Primary ore will be excavated from three different bench levels of 5 meters height, starting at the top of the main hill. Techniques used are conventional production drilling and blasting, loading by hydraulic shovels onto off-highway dumpers and transport to the washplant.

4.0 - WASH PLANT

The wash plant is actually a scalping/crushing and screening installation using dry processing methods. No water or chemicals are added during the treatment and the final products obtained will be :

Lump ores : - 75 (50)/+ 6 (15) mm

Fines : - 15 (6)/+ 1mm

Rejects : - 1 mm

Screen test have shown that screening produces changes in the Mn content of the ROM ore. When using a 6 mm lower size limit for lump ores, the following changes must be expected :

Lump ores : increase by 2.7 % in % Mn

Fines : decrease by 9.3 % in % Mn

By increasing the 6 mm limit of lump ores to a bigger size, still higher Mn values might be expected for the lump ores but also Fines since the relatively low Mn content of the -3.2/+ 1 mm size fraction will be compensated by the higher Mn values of the +6/-15 mm size fraction.

Fines are yielding sales prices that are generally between 15 and 20 % lower than thoses obtained for lump ores. For this reason we plan to stockpile the Fines near the washplant for later sales. After production year 10, about 195,000 tons of Fines will be available at the mine.

In this report we have considered the impact of the sales of the fines as an option only since we consider that the sales of fines should only take place when the price is right and not on a regular basis.

The weight recoveries for the different wash plant products can be summarized as follows :

Designation	Grain size	140,000 t/year
Plant feed	0 - 400 mm	100.00 %
Lump ores	50 - 6 mm	65.78 %
Fines	6 - 1 mm	10.77 %
Rejects	< 1mm	23.45 %

5.0 - SURFACE SERVICES

All the services are described in detail in InterStar's feasability study. they are composed of :

- Power Supply Mine,
- Water Supply Mine,
- Work Shop + Warehouse,
- Transport personnel,
- Housing Facilities in Markoye including Social Infrastructures,
- Mine Management.

For operation cost and environment impact reasons, solar power will be installed whenever economically feasible.

6.0 - GENERAL MANAGEMENT OUAGADOUGOU

Easy access to financial institutions, the government services and ease of international communications dictate this choice.

7.0 - ENVIRONMENTAL IMPACT

Mining and Processing of the ores will take place without using water or chemicals. Chemical pollution is therefore excluded. There will be some generation of dust that is unavoidable with this kind of operations but water sprinkling of the haulage roads should greatly reduce the dust.

Industrial and household garbage will be collected on a regular basis and either destroyed or used as fertilizer.

The planting of trees around the industrial installations and housing facilities in Markoye should even enhance the overall environmental conditions of the area that is characterized by a desertlike landscape without noticeable vegetation, wildlife or organized settlements.

8.0 - MARKETING

Our worldwide marketing efforts has conducted us to the following conclusions :

- Tambao ore appears to be acceptable to consumers in the Americas, Asia and Europe.

- Rather substantial test tonnages will have to to prepared for and forwarded to potential costumers before being able to obtain long term contracts. Each of this test shipments will be at leats 5,000 tons.

- The manganese market is actually in full reorganization. Adding this fact to a generally depressed world economy has a resulted in low manganese prices. However, according to all manganese marketing specialists, the low was reached by the end of 1992 and 1993 should see a slight price increase followed by rather bullish years starting in 1994. Tambao as a high grade deposit will become more and more important since existing developed high grade reserves are quickly diminishing.

For the following economic analysis we project the following ore sales prices :

Year	Considered ore sales price in US $/MTU FOB	Actual price in US $/MTU FOB
1992	2.10	2.10 - 2.25
1993	2.25	
1994	2.40	
1995	2.57	
1996	2.75	
1997	2.94	
1998	3.15	
1999	3.37	
2000	3.60	
2001	3.85	
2002	4.12	
2003	4.41	

9.0 - ORE TRANSPORT

The ore produced by the Tambao mine will be shipped to the harbour of Abidjan in the Ivory Coast. The lump ore will be loaded at the mine onto tractor/trailer units of 70-75 tons GVW. The trailer in tridem configuration will be fitted with a box of 25 m^3 with rear end discharge. This tridem configuration is required to respect existing axle load restrictions, i.e. 13 tons/axle.

The truck/trailer units, about 10, will carry the ore over 260 km of non paved laterite covered roads to the railhead in Kaya. There, they will be discharged onto an ore stockpile that is part of the Kaya transshipment facility.

This transshipment facility is composed of the aforementionned stockpile and a F.E. Loader on wheels, fitted with a 3.5 m^3 rock bucket used for a load and carry operation.

The same F.E. loader will also be used to load the unit trains composed of 20 ores cars of 45 to 50 tons payload each. A wagon scale situated at the end of the train loading section will determine the exact payload per unit train.

From Kaya the train will travel over 1,267 km to the port of Abidjan. Each train will carry about 900 tons of lump ore and consequently 156 unit trains/year are required to transport the planned production of 140,000 tons of lump ore/year. The railway administration indicated that the duration for each

trip would be around 7 days. This means that 3 complete unit trains of 20 wagons each + 10% reserve are necessary on a permanent basis. Consequently 66 ore cars must be purchased. The locomotives will be provided by the railway.

At its arrival at Abidjan harbour, the unit train will be unloaded, ore car by ore car, into a hopper-feeder located beneath the railway track. From there the lump ore will be transported via conveyor belts to an intermediary stockpile of about 600 m^3 storage capacity. From this stockpile the lump ore will be stockpiled onto 2 x 15,000 tons stockpile by the means of a F.E. Loader, several 7 m^3 buckets and a crane of 15 tons lifting capacity.

Shiploading will take place by using selfloading ore carriers. The ore will be loaded by a F.E. Loader into buckets of 10 to 15 tons capacity and transported near the vessel. The ship crane will lift the bucket and discharge it into the hold and re-deposit the empty buket on the quai for re-use.

Draft surveys of the ship and sampling of the loaded ores will complete Interstar's activities at the harbour.

In case of eventual sales of Fines, not considered in the Feasibility Report, InterStar will use re-usable " BIG BAGS " of 2 tons capacity that are already forseen for the test shipments for the transport to and storage at the port. This big bags will be emptied directly into the ship's hold and returned afterwards to the mine for further shipments.

10.0 - OPERATING COSTS

In order to facilitate eventual sensitivity studies, we have broken down the operating costs by " kinds of cost " and " cost centers ".

The following " kind of cost " were established and are contained in tables 1 to 14.

01 Manpower costs including social costs + apprenticeship tax.
02 Costs for fuel and lubricants.
03 Costs for spare & wear parts.
04 Tire costs.
05 Costs for miscellaneous supplies.
06 Costs for explosives and drill accessories.
07 Costs for laboratory supplies.
08 Construction maintenance expenses.
09 Costs for social supplies, i.e. schooling neeeds and medications.
10 Costs for office supplies.
11 Telecommunication costs (phone, fax, stamps, etc.).
12 Water/electricity costs, head office.
13 Office rent, head office
14 Miscellaneous costs.
15 Road taxes.
16 Railway transport costs.
17 Rail car maintenance costs.
18 Harbour costs and charges.

OPERATING COSTS
(in million FCFA)

COST CENTER : **MINING**

TABLE :

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	15.79	16.50	17.25	24.68	30.68	32.64	34.11	36.63	38.28	40.01	286.57
02	Fuel/Lubricant	47.19	49.31	51.53	86.18	122.69	148.21	157.29	177.15	177.51	200.72	1,217.78
03	Spares/Wears	17.21	17.98	18.79	24.54	32.26	38.94	41.32	46.52	46.63	52.69	336.88
04	Tires	1.50	1.56	1.63	1.86	2.08	2.33	2.45	2.65	2.72	2.95	21.73
05	Misc. supplies	5.73	5.99	6.26	6.54	6.84	7.14	7.47	7.80	8.15	8.52	70.44
06	Explosives + Drill acc.	0.10	0.11	0.11	1.19	2.32	2.82	3.00	3.42	3.40	3.87	20.34
19	Total	87.52	91.45	95.57	144.99	196.87	232.08	245.64	274.17	276.69	308.76	1,953.74

COST CENTER : **WASH PLANT**

TABLE :

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	14.26	14.90	15.57	16.28	17.01	18.28	19.10	19.96	20.86	21.80	178.02
02	Fuel/Lubricant	6.35	6.63	6.93	7.40	7.90	8.26	8.63	9.02	9.43	9.85	80.40
03	Spares/Wears	3.24	3.39	3.54	3.79	4.05	4.24	4.43	4.63	4.83	5.05	41.19
04	Tires	0.77	0.81	0.84	0.90	0.97	1.01	1.06	1.10	1.15	1.21	9.82
05	Misc. supplies	1.68	1.76	1.84	1.92	2.01	2.10	2.19	2.29	2.39	2.50	20.68
07	Lab. supplies	8.03	8.39	8.77	9.16	9.57	10.00	10.45	10.92	11.41	11.93	98.63
19	Total	34.33	35.88	37.49	39.45	41.51	43.89	45.86	47.92	50.07	52.34	428.74

OPERATING COSTS
(in million FCFA)

TABLE : 3

COST CENTER : SURFACE SERVICE - WORK SHOP

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	38.99	40.75	42.58	44.50	46.50	48.96	51.11	53.40	55.81	58.32	480.92
05	Misc. supplies	0.63	0.66	0.69	0.72	0.75	0.78	0.82	0.86	0.90	0.94	7.75
08	Const. maint.	2.09	2.18	2.28	2.38	2.49	2.60	2.72	2.84	2.97	3.10	25.65
19	Total	41.71	43.59	45.55	47.60	49.74	52.34	54.65	57.10	59.68	62.36	514.32

TABLE : 4

COST CENTER : SURFACE SERVICE - TRANSPORT PERSONNEL

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	6.99	7.31	7.63	7.98	8.34	8.87	9.27	9.68	10.12	10.57	86.76
02	Fuel/Lubricant	17.03	17.80	18.60	19.43	20.31	21.22	22.18	23.17	24.22	25.31	209.27
03	Spares/Wears	15.07	15.75	16.46	17.20	17.97	18.78	19.63	20.51	21.43	22.40	185.20
04	Tires	1.56	1.63	1.70	1.78	1.86	1.94	2.03	2.12	2.21	2.31	19.14
19	Total	40.65	42.49	44.39	46.39	48.48	50.81	53.11	55.48	57.98	60.59	500.37

TABLE :

COST CENTER : SURFACE SERVICE - POWER SUPPLY MINE

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	3.23	3.37	3.53	3.69	3.85	4.10	4.28	4.47	4.68	4.89	40.09
02	Fuel/Lubricant	59.17	61.83	64.61	67.52	70.56	73.73	77.05	80.52	84.14	87.93	727.06
03	Spares/Wears	5.05	5.27	5.51	5.76	6.02	6.29	6.57	6.87	7.17	7.50	62.01
19	Total	67.45	70.47	73.65	76.97	80.43	84.12	87.90	91.86	95.99	100.32	829.16

OPERATING COSTS
(in million FCFA)

COST CENTER : SURFACE SERVICE - WATER SUPPLY MINE

TABLE : (

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	1.90	1.98	2.07	2.17	2.26	2.40	2.51	2.63	2.74	2.87	23.53
02	Fuel/Lubricant	1.98	2.07	2.16	2.26	2.36	2.47	2.58	2.70	2.82	2.95	24.35
03	Spares/Wears	4.20	4.39	4.59	4.80	5.01	5.24	5.48	5.72	5.98	6.25	51.66
04	Tires	0.22	0.23	0.24	0.25	0.26	0.27	0.28	0.30	0.31	0.32	2.68
19	Total	8.30	8.67	9.06	9.48	9.89	10.38	10.85	11.35	11.85	12.39	102.22

COST CENTER : SURFACE SERVICE - HOUSING + POWER/WATER SUPPLY IN MARKOYE

TABLE :

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	12.97	13.56	14.17	14.80	15.47	16.46	17.20	17.97	18.78	19.62	161.00
02	Fuel/Lubricant	40.78	42.62	44.53	46.54	48.63	50.82	53.11	55.50	58.00	60.60	501.13
03	Spares/Wears	5.62	5.88	6.14	6.42	6.71	7.01	7.32	7.65	8.00	8.36	69.11
08	Const. maint.	6.26	6.54	6.84	7.14	7.47	7.80	8.15	8.52	8.90	9.30	76.92
19	Total	65.63	68.60	71.68	74.90	78.28	82.09	85.78	89.64	93.68	97.88	808.16

OPERATING COSTS
(in million FCFA)

COST CENTER : MANAGEMENT SITE

TABLE : 8

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	59.84	62.53	65.35	68.29	71.36	75.87	79.28	82.85	86.58	90.47	742.42
02	Fuel/Lubricant	3.28	3.42	3.58	3.74	3.91	4.08	4.27	4.46	4.66	4.87	40.27
08	Const. maint.	0.47	0.49	0.52	0.54	0.56	0.59	0.62	0.64	0.67	0.70	5.80
09	Social supplies	9.83	10.27	10.73	11.22	11.72	12.25	12.80	13.38	13.98	14.61	120.79
10	Office supplies	10.81	11.30	11.81	12.34	12.89	13.47	14.08	14.71	15.37	16.07	132.85
11	Telecom	6.66	6.96	7.27	7.60	7.94	8.30	8.67	9.07	9.47	9.90	81.84
19	Total	90.89	94.97	99.26	103.73	108.38	114.56	119.72	125.11	130.73	136.62	1,123.97

COST CENTER : MANAGEMENT - HEAD OFFICE

TABLE :

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	148.67	155.36	162.35	169.65	177.29	188.09	196.55	205.40	214.64	224.30	1,842.30
02	Fuel/Lubricant	7.43	7.76	8.11	8.47	8.86	9.25	9.67	10.11	10.56	11.04	91.26
03	Spares/Wears	3.28	3.42	3.58	3.74	3.91	4.08	4.27	4.46	4.66	4.87	40.27
04	Tires	0.64	0.67	0.70	0.73	0.76	0.80	0.83	0.87	0.91	0.95	7.86
10	Office supplies	1.31	1.37	1.43	1.50	1.56	1.63	1.71	1.78	1.86	1.95	16.10
11	Telecom	5.68	5.94	6.21	6.49	6.78	7.08	7.40	7.74	8.08	8.45	69.85
12	Water/Elect.	2.36	2.47	2.58	2.69	2.81	2.94	3.07	3.21	3.36	3.51	29.00
13	Office rent	6.55	6.85	7.16	7.48	7.81	8.17	8.53	8.92	9.32	9.74	80.53
14	Misc. costs	3.82	3.99	4.17	4.36	4.56	4.76	4.98	5.20	5.44	5.68	46.96
19	Total	179.74	187.83	196.29	205.11	214.34	226.80	237.01	247.69	258.83	270.49	2,224.13

OPERATING COSTS
(in million FCFA)

COST CENTER : TRANSPORT, TRUCKING

TABLE : 1(

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	16.51	17.26	18.03	18.84	19.69	20.95	21.89	22.88	23.90	24.98	204.93
02	Fuel/Lubricant	286.70	299.60	313.08	327.17	341.89	357.28	373.36	390.16	407.71	426.06	3,523.01
03	Spares/Wears	24.08	25.17	26.30	27.48	28.72	30.01	31.36	32.77	34.25	35.79	295.93
04	Tires	113.01	118.09	123.41	128.96	134.77	140.83	147.17	153.79	160.71	167.94	1,388.68
05	Misc. supplies	8.44	8.82	9.22	9.63	10.06	10.52	10.99	11.48	12.00	12.54	103.70
15	Road taxes	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	35.00	350.00
19	Total	483.74	503.94	525.04	547.08	570.13	594.59	619.77	646.08	673.57	702.31	5,866.25

COST CENTER : TRANSPORT - TRUCK MAINTENANCE

TABLE : 1

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	32.63	34.08	19.08	6.42	6.72	7.55	7.94	8.31	8.68	9.07	140.48
05	Misc. supplies	0.19	0.20	0.20	0.22	0.23	0.24	0.25	0.26	0.27	0.28	2.34
08	Const. maint.	0.76	0.80	0.84	0.88	0.91	0.96	1.00	1.04	1.09	1.14	9.42
19	Total	33.58	35.08	20.12	7.52	7.86	8.75	9.19	9.61	10.04	10.49	152.24

OPERATING COSTS
(in million FCFA)

COST CENTER : TRANSPORT - TRANSSHIPMENT KAYA

TABLE : 1

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
01	Manpower	5.29	5.52	5.77	6.03	6.30	6.71	7.01	7.32	7.65	8.00	65.60
02	Fuel/Lubricant	3.88	4.05	4.24	4.43	4.63	4.83	5.05	5.28	5.52	5.71	47.62
03	Spares/Wears	1.00	1.05	1.09	1.14	1.19	1.25	1.30	1.36	1.42	1.49	12.29
04	Tires	0.53	0.55	0.57	0.60	0.63	0.65	0.68	0.71	0.75	0.78	6.45
05	Misc. supplies	7.23	7.55	7.89	8.25	8.62	9.01	9.41	9.84	10.28	10.74	88.82
11	Telecom	1.31	1.37	1.43	1.50	1.56	1.63	1.71	1.78	1.86	1.95	16.10
19	Total	19.24	20.09	20.99	21.95	22.93	24.08	25.16	26.29	27.48	28.67	236.88

COST CENTER : TRANSPORT - SERVICES BY OUTSIDERS

TABLE : 1

#	Kind of costs	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
16	Rail costs	1,574.66	1,622.50	1,695.02	1,771.81	1,851.54	1,934.86	2,021.93	2,112.92	2,208.00	2,307.36	19,100.60
17	Wagon maint.	34.90	36.47	38.12	39.83	41.62	43.50	45.45	47.50	49.64	51.87	428.90
18	Harbour costs	354.83	370.80	387.49	404.93	423.15	442.19	462.09	482.88	504.61	527.32	4,360.29
19	Total	1,964.39	2,029.77	2,120.63	2,216.57	2,316.31	2,420.55	2,529.47	2,643.30	2,762.25	2,886.55	23,889.79

TOTAL OF 10 YEARS OPERATING COSTS BY KIND OF COSTS

# of table	Cost centers	01	02	03	04	05	06	07
1	Mining	286.57	1,217.78	336.88	21.73	70.44	20.34	
2	Wash plant	178.02	80.40	41.19	9.82	20.68		98.63
3	Work shop	480.92				7.75		
4	Transport personnel	86.76	209.27	185.20	19.14			
5	Power supply mine	40.09	727.06	62.01				
6	Water supply mine	23.53	24.35	51.66	2.68			
7	Housing markoye	161.00	501.13	69.11				
8	Management site	742.42	40.27					
9	Management head office	1,842.30	91.26	40.27	7.86			
	Subtotal mine	3,841.61	2,891.52	786.32	61.23	98.87	20.34	98.63
	% of total mine	45.30	34.10	9.30	0.70	1.20	0.20	1.20
	FCFA/tonne sold	2,744.01	2,065.37	561.66	43.74	70.62	14.53	70.45
10	Trucking to Kaya	204.93	3,523.01	295.93	1,388.68	103.70		
11	Truck maintenance	140.48				2.34		
12	Transshipment Kaya	65.60	47.62	12.29	6.45	88.82		
13	Services by outsiders							
	Subtotal transport	411.01	3,570.63	308.22	1,395.13	194.86		
	% of total transport	1.40	11.80	1.00	4.60	0.60		
	FCFA/tonne sold	293.58	2,550.45	220.16	996.52	139.19		
	Grand total mine + transport	4,252.62	6,462.15	1,094.54	1,456.36	293.73	20.34	98.63
	% of grand total	11.01	16.73	2.83	3.77	0.76	0.05	0.26
	FCFA/tonne sold	3,037.59	4,615.82	781.82	1,040.26	209.81	14.53	70.45

Legend :
01 Manpower costs
02 Costs fuel/Lubricants
03 Costs spare/wear parts
04 Tire costs
05 Costs miscellaneous supplies
06 costs explosives, drill accessories
07 Costs laboratory supplies
08 Costs construction maintenance
09 Costs social supplies
10 Costs office supplies
11 Costs telecommunications
12 Costs water/electricity
13 Costs for office rent
14 Miscellaneous costs
15 Costs road taxes
16 Costs railway transport
17 Costs rail-car maintenance
18 Harbour costs

Table 14

Kind of costs										Total
08	09	10	11	12	13	14	15	16	17	18	
25.65 76.92 5.80	120.79	132.85 16.10	81.84 69.85	29.00	80.53	46.96					1,953.74 428.74 514.32 500.37 829.16 102.22 808.16 1,123.97 2,224.13
108.37 1.30 77.71	120.79 1.40 86.28	148.95 1.80 106.28	151.69 1.80 108.35	29.00 0.30 20.71	80.53 0.90 57.52	46.96 0.50 33.54					8,484.81 100.00 6,060.47
9.42			16.10				350.00	19,100.60	428.90	4,360.29	5,866.25 152.24 236.88 23,889.79
9.42 0.03 6.73			16.10 0.07 11.50				350.00 1.20 250.00	19,100.60 63.40 13,643.29	428.90 1.40 306.36	4,360.29 14.50 3,114.49	30,145.16 100.00 21,532.27
117.79 0.30 84.14	120.79 0.31 86.28	148.95 0.39 106.28	167.79 0.43 119.85	29.00 0.07 20.71	80.53 0.21 57.52	46.96 0.12 33.54	350.00 0.91 250.00	19,100.60 46.45 13,643.29	428.90 1.11 306.36	4,360.29 11.29 3,114.49	38,629.97 100.00 27,592.74

Table 15 summarizes the operating costs per " cost centers " that were defined as follows :

Mining

Washplant

Work shop

Transport personnel

Power supply mine

Water supply mine

Housing Markoye

Site Management

Total mine site

Trucking to Kaya

Truck maintenance

Transshipment Kaya

Railway transport

Wagon maintenance

Harbour charges & fees

Total transport

General management

Grand total

OPERATING COSTS PER COST CENTERS
(in million FCFA)

TABLE 15

Cost centers	Operating years										Total 1994-2003	% of total
	1194	1995	1996	1997	1998	1999	2000	2001	2002	2003		
% of Manganese	52.61	55.28	51.69	54.20	56.04	55.94	55.71	55.72	55.29	55.39	54.79	
Ore + waste produced	206,210 t	206,210 t	206,210 t	256,622 t	296,140 t	352,514 t	359,138 t	392,557 t	373,398 t	408,880 t	3,057,879 t	
Lump ore produced	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	1,400,000 t	
Fines produced	-	-	-	-	17,575 t	35,270 t	35,270 t	35,270 t	35,270 t	35,270 t	193,925 t	
Lump ore sold	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	140,000 t	1,400,000 t	
Operating costs :												
Mining	87.52	91.45	95.57	144.99	196.87	232.08	245.64	274.17	276.69	308.76	1,953.74	5.05
Wash plant	34.33	35.88	37.49	39.45	41.51	43.89	45.86	47.92	50.07	52.34	428.74	1.11
Work shop	41.71	43.59	45.55	47.60	49.74	52.34	54.65	57.10	59.68	62.36	514.32	1.33
Transport personnel	40.65	42.49	44.39	46.39	48.48	50.81	53.11	55.48	57.98	60.59	500.37	1.30
Power supply mine	67.45	70.47	73.65	76.97	80.43	84.12	87.90	91.86	95.99	100.32	829.16	2.15
Water supply mine	8.30	8.67	9.06	9.48	9.89	10.38	10.85	11.35	11.85	12.38	102.22	0.26
Housing Markoye	65.63	68.60	71.68	74.90	78.28	82.09	85.78	89.64	93.68	97.88	808.16	2.09
Site management	90.89	94.97	99.26	103.73	108.38	114.56	119.72	125.11	130.73	136.62	1,123.97	2.91
Total Mine Site	436.48	456.12	476.65	543.51	613.58	670.27	703.51	752.63	776.67	831.26	6,260.68	16.20
FCFA/t ore + waste	2,116.68	2,211.92	2,311.48	2,117.94	2,071.93	1,901.40	1,958.88	1,917.25	2,080.01	2,033.22	2,047.39	
FCFA/t lump ore	3,117.71	3,258.00	3,404.64	3,882.21	4,382.71	4,787.64	5,025.07	5,375.93	5,547.64	5,937.57	4,471.91	
Transport :												
Trucking to Kaya	483.74	503.94	525.04	547.08	570.13	594.59	619.77	646.08	673.57	702.31	5,866.25	15.19
Truck maintenance	33.58	35.08	20.12	7.52	7.86	8.75	9.19	9.61	10.04	10.49	152.24	0.39
Transshipment Kaya	19.24	20.09	20.99	21.95	22.93	24.08	25.16	26.29	27.48	28.67	236.88	0.61
Railway	1,574.66	1,622.50	1,695.02	1,771.81	1,851.54	1,934.86	2,021.93	2,112.92	2,208.00	2,307.36	19,100.60	49.45
Wagon maintenance	34.90	36.47	38.12	39.83	41.62	43.50	45.45	43.50	49.64	51.87	428.90	1.11
Harbour charges	354.83	370.80	387.49	404.93	423.15	442.19	462.09	482.88	504.61	527.32	4,360.29	11.29
Total transport	2,500.95	2,588.88	2,686.78	2,793.12	2,917.23	3,047.97	3,183.59	3,325.28	3,473.34	3,628.02	30,145.16	78.04
FCFA/t lump ore	17,863.93	18,492.00	19,191.29	19,950.86	20,837.36	21,771.21	22,739.93	23,752.00	24,809.57	25,914.43	21,532.26	
General management	179.74	187.83	196.29	205.11	214.34	226.80	237.01	247.69	258.83	270.49	2,224.13	5.76
FCFA/t lump ore	1,283.86	1,341.64	1,402.07	1,465.07	1,531.00	1,620.00	1,692.93	1,769.21	1,848.79	1,932.07	1,588.66	
Grand total	3,117.17	3,232.83	3,359.72	3,541.74	3,745.15	3,945.04	4,124.11	4,325.60	4,508.84	4,729.77	38,629.97	100.00
FCFA/t ore + waste	15,116.48	15,677.37	16,929.71	13,801.39	12,646.55	11,191.16	11,483.36	11,019.04	12,075.16	11,567.62	12,632.93	
FCFA/MTU FOB	423.22	417.72	464.27	466.76	477.36	503.73	528.77	554.51	582.49	609.93	503.61	
US $/MTU FOB	1.54	1.52	1.69	1.70	1.74	1.83	1.92	2.02	2.12	2.22	1.83	
FCFA/t lump ore sold	22,265.50	23,091.64	23,998.00	25,298.14	26,751.07	28,178.86	29,457.93	30,897.14	32,206.00	33,784.07	27,592.83	

11.0 - INVESTMENT COSTS

Table 16 summarizes the total investment costs including pre-development costs, working capital, initial, additionnal and replacement investments during the first 10 operating years.

This table is selfexplanatory and more details can be found in the complete Feasability Report established by InterStar Mining Group Inc.

INVESTMENT COSTS
(in million FCFA)

TABLE 16

Cost centers	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	TOTAL
	Initial investments			Additionnal, replacement investment									
Mining	-	142.92	298.69	22.65	7.28	60.03	45.18	-	-	71.60	-	-	648.35
Processing	-	185.09	96.71	-	-	-	-	-	-	-	-	-	281.80
Transport personnel	-	177.65	-	-	-	-	-	102.08	42.66	-	-	-	322.39
Water supply	-	114.29	-	-	-	-	-	-	-	-	-	-	114.29
Power supply	-	49.95	-	-	-	-	-	-	-	-	-	-	49.95
Housing etc ...	-	357.08	-	-	-	-	-	-	-	-	-	-	357.08
Management	-	46.69	-	-	-	-	-	-	-	-	-	-	46.69
Head office	-	85.17	-	-	-	-	-	43.55	-	33.44	-	-	162.16
Sub-total Mine	-	1,158.84	395.40	22.65	7.28	60.03	45.18	145.63	42.66	105.04	-	-	1,982.71
Transshipment Kaya	-	74.71	78.07	-	-	-	-	-	-	-	-	-	152.78
Railway cars	-	646.59	675.68	-	-	-	-	-	-	-	-	-	1,322.27
Truck shop	-	103.60	-	-	-	-	-	-	-	-	-	-	103.60
Houses truckers	-	17.74	-	-	-	-	-	-	-	-	-	-	17.74
Trucks	-	387.96	-	-	-	-	-	-	-	-	-	-	387.96
Port installations	-	43.51	-	-	-	-	-	-	-	-	-	-	43.51
Sub-total Transport	-	1,274.11	753.75	-	-	-	-	-	-	-	-	-	2,027.86
Pre-development Cost	350.00	-	-	-	-	-	-	-	-	-	-	-	350.00
Working Capital	-	745.73	-	-	-	-	-	-	-	-	-	-	745.73
Interest Cost	38.50	120.53	-	-	-	-	-	-	-	-	-	-	159.03
Grand Total	388.50	3,299.21	1,149.15	22.65	7.28	60.03	45.18	145.63	42.66	105.04	-	-	5,265.33

12.0 - ECONOMIC & FINANCIAL PROJECTIONS

Table 17 contains all relevant financial data including the taxes that were calculated according to the Mining Investment Convention and other valid government regulations.

Table 18 indicates InterStar Mining Group Inc.'s net profit i.e. repatriable monies, the rates of return and the NPV's non discounted and discounted at 5, 10 and 15 %.

The results considering lump ore sales only are the proof of a sound and financially viable project. Within 10 years of operations, InterStar is investment (social capital) is recovered several times and as follows :

8.6 times if non discounted,
6.2 times if discounted at 5 %,
4.6 times if discounted at 10 %, and
3.5 times if discounted at 15 %.

From production year 1 onwards, the cash-flow is positive.

ECONOMIC & FINANCIAL PROJECTIONS
(in million FCFA)

TABLE 17

#	Designation	Development		Production										Total or Averages
		1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
1	Tons produced	-	35,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	1,435,000
2	Tons sold	-	-	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	140,000	1,400,000
3	% Mn of product sold	-	-	52.61	55.28	51.69	54.20	56.04	55.94	55.71	55.72	55.29	55.39	54.79
4	FOB FCFA/MTU	-	-	660.00	706.75	756.25	808.50	866.25	926.75	990.00	1,058.75	1,133.00	1,212.75	914.50
5	Turnover	-	-	4,861.16	5,469.68	5,472.68	6,134.90	6,796.25	7,257.94	7,721.41	8,259.10	8,770.10	9,404.39	70,147.61
	Operating Cost :													
6	Mining + Transport	-	* 745.50	3,117.17	3,232.83	3,359.72	3,541.74	3,745.15	3,945.04	4,124.11	4,325.60	4,508.84	4,729.77	38,629.97
7	Dues + Taxes	-	* 20.30	97.78	121.78	115.75	142.63	168.42	224.94	262.80	324.97	346.49	375.08	2,180.64
8	Pre-development Cost	* 350.00	-	-	-	-	-	-	-	-	-	-	-	-
9	Amortization	-	-	778.73	783.26	784.72	796.71	805.77	56.16	60.17	79.71	67.70	58.67	4,271.60
10	Interest Cost (11% p.a.)	-	-	342.64	258.98	173.46	92.42	8.76	18.60	16.67	19.46	12.01	5.56	948.56
11	Total Operating Cost (6+7+9+10)	-	-	4,336.32	4,396.85	4,433.65	4,573.50	4,728.10	4,244.74	4,463.75	4,749.74	4,935.04	5,169.08	46,030.77
	Profit/(Losses) :													
12	Profit before Income Tax (5- 11)	-	-	524.84	1,072.83	1,039.03	1,561.40	2,068.15	3,013.20	3,257.66	3,509.36	3,835.06	4,235.31	24,116.84
13	Income Tax (45 %)	-	-	-	-	-	-	-	1,355.94	1,465.95	1,579.21	1,725.78	1,905.89	8,032.77
14	Net Revenues	-	-	524.84	1,072.83	1,039.03	1,561.40	2,068.15	1,657.26	1,791.71	1,930.15	2,109.28	2,329.42	16,084.07
	Social capital InterStar		943.19											
	Social Capital OGPT		507.87											
	Total Social Capital		1,451.06											
	Mining Loan InterStar		2,744.52	1,149.15										
	Previous Expenses OGPT		761.26	-										
14	Net Revenues	-	-	524.84	1,072.83	1,039.03	1,561.40	2,068.15	1,657.26	1,791.71	1,930.15	2,109.28	2,329.42	16,084.07
9	Amortization	-	-	778.73	783.26	784.72	796.71	805.77	56.16	60.17	79.71	67.70	58.67	4,271.60
15	Total Cash Flow	-	-	1,303.57	1,856.09	1,823.75	2,358.11	2,873.92	1,713.42	1,851.88	2,009.86	2,176.98	2,388.09	20,355.67
16	Reimbursement : InterStar	-	-	847.32	1,551.08	1,495.27	-	-	-	-	-	-	-	3,893.67
17	Reimbursement : OGPT	-	-	456.25	305.01	-	-	-	-	-	-	-	-	761.26
18	Revenues before WH Tax	-	-	-	-	328.48	2,358.11	2,873.92	1,713.42	1,851.88	2,009.86	2,176.98	2,388.09	15,700.74
19	Withholding Tax	-	-	-	-	41.06	294.76	359.24	428.36	462.97	502.46	544.25	597.02	3,230.12
20	Net Profit (total)	-	-	-	-	287.42	2,063.35	2,514.68	1,285.06	1,388.91	1,507.40	1,632.73	1,791.07	12,470.62
21	Net Profit InterStar	-	-	-	-	186.82	1,341.18	1,634.54	835.29	902.79	979.81	1,061.27	1,164.20	8,105.90

NET PROFITS/RATES OF RETURN/NPV
(in million FCFA)

TABLE 1

Designation	Operating Years										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	
Interstar's net profits in million FCFA :											TOTAL (NPV)
non discounted	-	-	186.82	1,341.18	1,634.54	835.29	902.79	979.81	1,061.27	1,164.20	8,105.90
discounted at 5 %	-	-	161.38	1,103.39	1,280.66	623.29	641.61	663.14	684.09	714.70	5,872.26
discounted at 10 %	-	-	140.36	916.03	1,014.88	471.52	463.31	457.08	450.08	448.80	4,361.98
discounted at 15 %	-	-	122.83	766.89	812.69	361.10	339.36	320.30	301.72	287.79	3,312.68
Return on investment in % :											Average over 10 years
non discounted	-	-	19.81	142.20	173.30	88.56	95.72	103.88	112.52	123.43	85.94
discounted at 5 %	-	-	17.11	116.98	135.78	66.08	68.03	70.31	72.53	75.77	62.26
discounted at 10 %	-	-	14.88	97.12	107.60	49.99	49.12	48.46	47.72	47.58	46.25
discounted at 15 %	-	-	13.02	81.31	86.16	38.28	35.98	33.96	31.99	30.51	35.12

NOTA : InterStar's investment (social capital) : 943.19 million FCFA

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13.0 - OPTIONAL SALE OF FINES

To increase the profitability of a mining project, the operator might rely on the following approaches, i.e. :

1 - optimization of investment & operating costs,

2 - production increases, and finally

3 - recovery and sale of by-products.

In the case of the Tambao project, Interstar will deal with point 1 during the detailed engineering phase, especially with regard to the transport mode that might finally be selected. We know that our investment costs for instance consider new equipement only that could be easily replaced by good quality second hand material. We were also very conservative with regard to fuel and wear & spare part consumptions and the equipment hours but we consider that only operating experience will show if we overestimated our costs.

Point 2, production increase depends mainly on world market conditions and in the case of Tambao transport constraintes.

As far as point 3 is concerned, InterStar is in the fortunate position to dispose already of a " by-product " that was produced and paid for as part of the lump ore production i.e. the FINES.

The only additionnal costs we must consider consist of the ore loading costs at the mine, the transport costs and harbour charges & fees.

Our calculation is shown in Table 19. By using Mn values that are 9.3 5 lower than those of lump ores and 20 % lower ore prices, the mine operator would still be able to generate over the 6 years of potential Fine production i.e. from 1998 to 2003 an additionnal turnover of 8,189.60 million FCFA (about 29.8 million US $), an additionnal operating profit of 4,753.24 million FCFA (about 17.3 million US $) and a net profit for InterStar Mining Group Inc. of 993.37 million FCFA (about 3.6 million US $).

Table 20 summarizes the corresponding net profits, rates of return and NPV's that are obtained through the sale of Fines.

Finally Table 21 summarizes the increase in InterStar's net profits, rates of return and NPV's for the combined sale of lump ore and Fines. This increase is noticeable indeed since without additionnal investments, an increase of 12.25 % (non discounted) to 10.45 % (discounted at 15 %) could be obtained.

PROFIT INCREASE BY SALES OF FINES
(in million FCFA)

TABLE 19

Designation	Operating years						Total or average
	1998	1999	2000	2001	2002	2003	
Fines sold % Mn	17,575 t 50.83	35,270 t 50.74	35,270 t 50.53	35,270 t 50.54	35,270 t 50.15	35,270 t 50.24	193,925 t 50.48
FCFA/MTU FOB FCFA/t sold	693.00 32,225.19	741.40 37,618.64	792.00 40,019.76	847.00 42,807.38	906.40 45,455.96	970.20 48,742.85	837.61 42,282.33
Turnover	619.08	1,326.81	1,411.50	1,509.82	1,603.23	1,719.16	8,189.60
Operating cost : Loading at mine Transport Mine gate tax	 0.76 366.22 12.61	 1.59 767.87 27.87	 1.67 802.04 30.39	 1.74 837.73 33.52	 1.82 875.03 36.32	 1.90 914.00 40.16	 9.48 4,562.89 180.87
Total operating cost	379.59	797.33	834.10	872.99	913.17	956.06	4,753.24
Operating profit	239.49	529.48	577.40	636.83	690.06	763.10	3,436.36
Income (profit) tax	-	238.27	259.83	286.57	310.53	343.40	1,438.60
Net operating profit	239.49	291.21	317.57	350.26	379.53	419.70	1,997.76
Withholding tax	29.94	72.80	79.39	87.57	94.88	104.93	469.51
Net profit Net profit InterStar	209.55 136.21	218.41 141.97	238.18 154.82	262.69 170.75	284.65 185.02	314.77 204.60	1,528.25 993.37

NET PROFITS/RATES OF RURN/NPV FOR SALES OF FINES
(in million FCFA)

TABLE 20

Designation	Operating years						
	1998	1999	2000	2001	2002	2003	
Interstar's net profits in million FCFA :							TOTAL NPV :
non discounted	136.21	141.97	154.82	170.75	185.02	204.60	993.37
discounted at 5 %	106.72	105.94	110.03	115.56	119.26	125.60	683.11
discounted at 10 %	84.57	80.14	79.45	79.65	78.47	78.87	481.15
discounted at 15 %	67.72	61.37	58.20	55.82	52.60	50.58	346.29
Return on investment in % :							Average over 10 years
non discounted	14.44	15.05	16.41	18.10	19.62	21.69	10.53
discounted at 5 %	11.31	11.23	11.67	12.25	12.64	13.32	7.24
discounted at 10 %	8.97	8.50	8.42	8.44	8.32	8.36	5.10
discounted at 15 %	7.18	6.51	6.17	5.92	5.58	5.36	3.67

NOTA : InterStar's investment (social capital) : 943.19 million FCFA

NET PROFITS/RATES OF RETURN/NPV FOR SALES OF LUMP ORES + FINES
(in million FCFA)

TABLE 2

Designation	Operating years								Total	% increase due to sales of fines
	1996	1997	1998	1999	2000	2001	2002	2003		
Interstar's net profits in million FCFA :										
non discounted	186.82	1,341.18	1,770.75	977.26	1,057.61	1,150.56	1,246.29	1,368.80	9,099.27	+ 12.25 %
discounted at 5 %	161.38	1,103.39	1,387.38	729.23	751.64	778.70	803.36	840.31	6,555.39	+ 11.63 %
discounted at 10 %	140.36	916.03	1,099.46	551.66	542.77	536.74	528.55	527.67	4,843.24	+ 11.03 %
discounted at 15 %	122.83	766.89	880.42	422.47	397.56	376.12	354.32	338.37	3,658.98	+ 10.45 %
Return on investment in % :										
non discounted	19.81	142.20	187.74	103.61	112.13	121.99	132.14	145.12	96.47	+ 12.25 %
discounted at 5 %	17.11	116.98	147.09	77.32	79.69	82.56	85.17	89.01	69.50	+ 11.63 %
discounted at 10 %	14.88	97.12	116.57	58.59	57.55	56.91	56.04	55.95	51.35	+ 11.03 %
discounted at 15 %	13.02	81.31	93.34	44.79	42.15	39.88	37.57	35.88	38.79	+ 10.45 %

NOTA : InterStar's investment (social capital) : 943.19 million FCFA

14.0 - ADVANTAGES FOR BURKINA FASO

Besides the positive impact on the employment situation of the host country by the creation of about 240 permanent jobs and without considering the multiplier effect on secondary jobs, fuel taxes and other government dues and fees, the Tambao project should be able to generate the following revenues for the Burkinabe government, within a 10 years period :

Designation	Million FCFA
Concession lease, mine gate tax	2,200.94
Income (profit) tax	8,032.77
Road taxes	350.00
Withholding tax	3,230.12
Apprenticeship tax	117.90
Contributions to social security	630.72
Net profit government	4,364.72
Reimbursement previous OGPT expenses	761.26
Total government	19,688.43 or 70.84 %
Total InterStar Profit	8,105.90 or 29.16 %