AVEBURY NICKEL PROJECT
STAGE 1

VIKING DECLINE DEVELOPMENT BUSINESS PLAN

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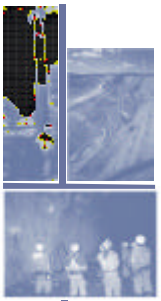

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1.0 SUMMARY

At Avebury, west of Zeehan, Allegiance Mining NL has discovered deposits of nickel sulfide mineralisation estimated to contain 4 Mt 1.5% Ni, with potential for further discovery.

The nickel is present predominantly as the nickel sulfide pentlandite which occurs as coarse grained masses along the flanks of an altered ultramafic body. Two deposits, North Avebury and Viking, have been identified to date.

Drilling indicates a zone of higher grade mineralisation is developed along the upper flanks of the Viking deposit.

Allegiance has decided to advance the detailed evaluation and mining of Avebury by way of a 3-stage development strategy:

Stage 1 Involves developing an underground access into the upper high grade section of Viking. This will facilitate both a detailed technical evaluation of Viking and parts of North Avebury, and provide a platform for early Stage 2 production.

Stage 2 Requires off-site treatment of Avebury ore over a 3-year period at a minimum treatment rate of 300,000 tpa.

Stage 3 Envisages possible on-site treatment of Avebury ore.

The principal components of **Stage 1** are:

(i) Construction of a 3 km access road along an existing exploration track.

(ii) Establishment of infrastructure necessary to complete Stage 1 and facilitate an early start to Stage 2. This will include grid power, water, offices, and environmental management installations.

(iii) Development of a 5.5 m x 5 m, 1,081 m long decline at 1:7 grade into the top section of the Viking deposit and 245m of stockpiles and decline accesses. The decline will be adequate for Stage 2 and 3 production rates in excess of 500,000 tpa. It will access Viking at 1960 RL. Provisional estimates indicate sufficient mineralisation is present above 1960 RL for Stage 2 production.

(iv) Completion of detailed resource definition drilling programs, geotechnical studies and metallurgical test work on drill core samples and cross-cut exposures of mineralisation.

The detailed drilling will permit estimations of resources and reserves for Stage 2 production.

The geotechnical studies will permit detailed Stage 2 mine design and establish an accurate mining cost.

Metallurgical test work will both identify necessary mill modification and assist with negotiations of an off-take agreement for concentrate production.

(v) Preparation and submission of the Stage 2 Development Proposal and Environment Management Plan.

(vi) Completion of a Stage 2 Final/Bankable Feasibility Study.

BFP have been requested to provide a "Business Plan" estimate for these stages. The following is an indicative estimate of the expected costs to take the project through to ore production. These estimates have been made in conjunction with a variety of sub contractors and should be read in the context of a budget estimate only. They have been complied with relatively limited information and whilst all care has been taken to provide the correct budgets and schedules, realty may differ.

Stage 1 is estimated to cost $7.44M and take 12 months to complete from commencement of construction work. It will be preceded by a 6-month permitting and planning period.

Stage 1 budget summary is:

Access and portal development	500,000
Infrastructure	1,151,000
Decline and accesses	3,713,000
Technical studies	1,280,000
Stage 2 DPEMP	150,000
Stage 2 Feasibility Study	250,000
Management	400,000
TOTAL	**$7,444,000**

The first 3 months of Stage 1 is devoted to access and infrastructure development and mobilisation of the mining contractor.

Months 4-11 will see construction of the decline and concurrent completion of technical studies.

Month 12 requires assembly of all data and final discussions and negotiations on Stage 2.

Stage 1 pre-development planning and permitting has commenced with the application for a Mining Lease in late April and submission of a draft DPEMP in early May 2003. The only way to shorten this pre-development period is to reduce the DPEMP approval process. This can be difficult due to the bureaucratic complexity of the process.

The pre-development period is also subject to extension if either complications with the DPEMP process emerge or capital raising for Stage 1 is not completed before the DPEMP is approved.

2.0 PROJECT DESCRIPTION

2.1 Background

Since 1997 Allegiance Mining NL has invested approximately $5M exploring and evaluating a nickel sulfide deposit at Avebury, near Zeehan, on the West Coast of Tasmania.

A resource estimated to contain 4 Mt 1.5% Ni has been identified. Excellent potential exists to identify additional resources.

The identified resource occurs in two distinct deposits; viz, Viking and North Avebury (resource table below).

Deposit	Resource (t)	Grade (% Ni)*	Cut off Grade (% Ni)	Contained Ni (t)**
Indicated Mineral Resource				
North Avebury	**1,260,000**	**1.5**	**0.8**	**18,900**
Viking	**1,880,000**	**1.5**	**1.0**	**28,200**
Sub-total	**3,140,000**	**1.5**		**47,100**
Inferred Mineral Resource				
North Avebury	**200,000**	**1.8**	**0.8**	**3,600**
Viking	**720,000**	**1.5**	**1.0**	**10,800**
Sub-total	**920,000**	**1.6**		**14,400**
Total Mineral Resource				
North Avebury	**1,460,000**	**1.5**	**0.8**	**22,500**
Viking	**2,600,000**	**1.5**	**1.0**	**39,500**
Total	**4,060,000**	**1.5**		**61,500**

*** Assays are rounded to the nearest decimal place**

**** Arithmetic discrepancies due to rounding of Ni grade**

An above-average grade zone of mineralisation occurs around the margins in the top section of the Viking deposit. This zone contains a potential 1 Mt 1.5-2.0% Ni mineralisation.

Allegiance plans to further evaluate and develop the deposit by way of a three stage strategy:

Stage 1 Involves construction of a 1,326 m long decline and accesses to access the higher grade upper section of Viking. The decline will facilitate completion of detailed technical and financial analyses of Viking ahead of a decision to progress to Stage 2.

Stage 2 Involves mining Viking (and possibly North Avebury) at a rate of 300,000 tpa over a 3-year period. The ore would be trucked off-site for treatment at one of two adjacent under-utilised mills (Hellyer or Renison). During Stage 2 further technical and financial evaluation studies would be completed ahead of a decision on Stage 3.

Stage 3 Involves on-site milling of Avebury ore, probably at a minimum rate of 500,000 tpa.

This Business Plan presents a cost estimate, schedule and budget for Stage 1 development only.

2.2 Stage 1:

The **objectives** of Stage 1 are:

- provide access to the higher grade upper sections of Viking (and possibly North Avebury) for both detailed assessment of the resource, and as a platform from which to commence Stage 2 production
- facilitate detailed pattern drilling of Viking (and part of North Avebury) above 1900 RL, for resource/reserve estimation purposes
- permit inspections of ground conditions and mineralisation patterns on which to base Stage 2 mine planning and costing
- acquire bulk samples of mineralisation for metallurgical testing, necessary for both mill flow sheet modifications and ore sales negotiations
- facilitate the rapid advancement of the project to Stage 2

The principal **components of** Stage 1 are:

- planning, permitting and capital raising
- access and infrastructure development
- decline construction
- detailed technical programs
- completion of Stage 2 Feasibility Study and Environment Management Plan

2.3 Planning, permitting, capital raising:

Before Stage 1 development can commence, the project must be approved and permitted by governments, and necessary capital must be available.

Permits to commence Stage 1 are required from both the West Coast Council and the Department of Primary Industries Water and Environment (DPIWE). Application for the granting of these permits is supported by a Development Proposal and Environment Management Plan (DPEMP).

Allegiance anticipates submission of the draft DPEMP to governments in the second half of May 2003. Major Stage 1 development cannot commence until a Mining Lease has been granted by Mineral Resources Tasmania (MRT).

Allegiance submitted a Mining Lease Application to MRT in early May 2003. The 400 ha lease application area covers the identified Avebury resource area, potential resource extension areas, and Stages 1 and 2 development areas; ie, all supporting infrastructure.

2.3.1 Access and infrastructure development:

The Avebury deposits lie 2 km south of the Trial Harbour Road, approximately 7 km west of Zeehan. It is planned to develop a new access road from the Trial Harbour Road into the Viking Decline portal site and develop infrastructure support both on the plateau area above the portal and at the portal site in the Hemp Creek Valley.

Electric power will be delivered to the site by way of a 5 km extension of the state grid.

All access and infrastructure is to be developed in a manner which permits rapid and logical expansion to support Stage 2.

2.3.2 Decline development:

A 1,081 m long, 5.5 m x 5 m decline will be driven at 1:7 gradient and 245m of flat access drives to intersect the Viking deposit at RL 1960. The decline will be developed on a contract basis.

Provision will be made along the decline for drill cuddies, passing bays and stubs to facilitate future decline developments to the west and to North Avebury.

Waste rock from the decline will be used to form and upgrade the access road. Waste rock considered to be potentially acid forming will be buried in a clay lined trench.

A range of environmental and OH & S monitoring programs will be maintained during development of the decline.

2.3.3 Detailed technical programs:

During development of the decline, a range of geological, geotechnical and metallurgical studies will be undertaken.

Geological studies will be aimed primarily at detailed drill definition of the upper Viking deposit and secondarily at both the upper North Avebury deposit and opportunities for additional high grade mineralisation which may be amenable to early Stage 2 production.

Geotechnical studies will be completed to assist with on-going mine development and stope design, which in turn will develop mining capital and operating costs for Stage 2.

Metallurgical studies will be undertaken both on drill cores from the detailed drilling program and on bulk samples acquired from two cross-cuts developed from the decline into the Viking at 1960 and 1980 RLs. Results from these studies will be used to both refine mill circuitry and assist with negotiations on treatment of ore.

2.3.4 Stage 2 Feasibility Study and EMP:

During acquisition of data from the above detailed technical programs, a final/bankable feasibility study and an environmental management plan for Stage 2 will be completed. These studies will be necessary to optimise Stage 2 production and acquire Stage 2 permitting respectively.

3.0 COMPONENT COST ESTIMATES

3.1 Access Road and Box-cut:

Stage 1 involves developing a 3 km section of new road between the Trial Harbour Road and the Viking Decline portal site.

At the portal site a box-cut will be established to both remove shallow, fractured rock formations ahead of the decline portal proper, and provide an adequate area for infrastructure.

The road route is approximately 3 km long and is currently defined by a partly formed exploration track. The northern kilometre has been roughed out by excavator but is not driveable, and the southern 2 km are driveable by 4WD and can be accessed at the midpoint by 4WD along older 4WD tracks.

During Stage 1 it is planned to develop the access road in three phases:

Phase 1: Upgrade the northern 2 km to a good 4WD standard to facilitate general access to the site

Phase 2: Re-route the road down the Hemp Creek valley to the portal site and excavate the portal box-cut. At the end of this stage, the road will be adequate for infrastructure development and commencement of the decline.

Phase 3: Upgrade the road during construction of the decline, using suitable decline waste rock. Approximately 75,000 t of rock will be used in this phase, uncrushed for road formation and crushed for top dressing.

Phase 1 approval has already been obtained, in order to facilitate on-going exploration and evaluation of the project. It is planned to complete Phase 1 prior to commencement of Stage 1 development work.

Phase 1 will require two excavators, a 4WD truck and a blasting crew for 1-2 weeks. They will be required to install culverts, lay geotextile where necessary, excavate and spread rock, and develop drainage as required.

Estimated cost of Phase 1 = $50,000

Phase 2 will require detailed surveying of the re-aligned road and box-cut, together with salvaging of identified timber ahead of actual road work and box-cut excavation. The road re-alignment is required to develop a uniform 1:10 gradient on the road from the decline portal to the top of the plateau. Suitable rock generated during the re-alignment will be trucked out for upgrading the access road.

The box-cut is approximately 40 m long x 20 m wide. When excavated, it will provide sufficient room for portal facilities and a temporary stockpile. Approximately 4,000 cu metres of rock will be excavated and trucked along the access road for progressive upgrading.

Phase 2 will involve two excavators, 2 trucks and possibly a bulldozer for 3-4 weeks.

Estimated cost of Phase 2 = $200,000

Phase 3 will involve disposal of 80,000 t Viking Decline waste rock. The Stage 1 DPEMP requires rock identified as having acid forming potential to be buried in a designated area on the plateau. All other decline waste rock, estimated to be 75,000 t, will be used to develop the access road into a high quality trucking route.

Initially, decline waste rock will be trammed by the underground loader to a temporary stockpile in the box-cut. From there it will be loaded onto trucks for distribution along the access road. Once underground trucks are in use, they will dump on a surface stockpile either in the box-cut or on the plateau. From the surface stockpile rock will either be distributed directly along the road or crushed prior to distribution as top dressing.

Phase 3 will require a loader, one truck, one excavator for 6 months ($220,000), and a mobile crusher for 2 months to crush approximately 10-20,000 t waste rock ($30,000).

Estimated cost of Phase 3 = $300,000

Summary of road and box-cut costs:

(Phase 1 - included in pre-development work	50,000)
Phase 2	200,000
Phase 3	300,000
Road & Box-cut Sub-total:	**$500,000**

3.2 Infrastructure

Stage 1 infrastructure cost estimates are grouped into:

(i) plateau facilities
(ii) portal facilities
(iii) grid power supply
(iv) operating costs

Infrastructure has been designed not only as adequate for Stage 1, but also as a foundation for Stage 2 development.

3.2.1 Plateau facilities

Facilities to support the Viking Decline will be developed on an open plateau area approximately 1.5 km north of the decline portal.

These facilities will include a small office-ablutions unit, workshop, fuel storage, car park and water supply.

The **office-ablutions** unit would consist of several transportable units, with extended roofing areas for weather protection. They would provide office space, crib room, lamp-first aid room, showers, change rooms.

Workshop would provide an 8 m x 8 m area for routine maintenance of underground equipment, fully equipped with water and power.

Water supply involves the installation of 23,000 litre above ground tanks fed by a water line from Kynance or Contiguous Creeks, and supplying both the plateau and portal facilities. If Contiguous Creek is considered an adequate supply, the cost will be significantly less. Water supply also includes the provision of a trailer mounted fire fighting unit.

Fuel storage provides for diesel storage for underground vehicles. It also provides for waste oil management and bunding. It is assumed tanks will be supplied by the fuel supplier.

Site water and waste management provides for a wash bay with concrete floor, a waste water tank and associated plumbing and drainage and general site works and associated drainage management.

Plateau facilities cost estimate:

-	Office-ablutions	70,000
-	Workshop	35,000
-	Water supply	50,000
-	Fuel storage	20,000
-	Site water & waste management	25,000
	Plateau Sub-total	**$200,000**

3.2.2 Portal facilities

Facilities at the decline portal include waste water management facilities, temporary sub-station and temporary electric compressor. It is assumed the mining contractor will install the ventilation fan to their own requirements.

The **waste water management** system will consist of iron precipitation ponds, silt and hydrocarbon triple interceptor traps and associated piping.

Portal facilities cost estimates:

-	Water management	30,000
-	Electric compressor (purchase)	35,000
	Portal Sub-total:	**$65,000**

3.2.3 Grid power supply

Two options for Stage 1 power supply were considered. The first option was to initially generate power on site with generators at both the plateau and portal sites complemented with a diesel compressor at the portal. These temporary installations would be replaced during Stage 1 when grid power was available from Aurora.

The second option was to extend grid power to the project prior to commencement of the decline, thereby eliminating the need for temporary diesel generators and compressor.

The second option is the preferred option for several reasons:

- cost benefits, eliminating hire and installation costs and diesel consumption
- environmental benefits from reduction in diesel storage and movement, noise, etc

- operational benefits with fewer truck movements and change-over disruptions to grid power

The main potential disadvantage of this option is that the decline can not commence until the power is installed at the portal, so careful scheduling will be required.

The grid power supply option involves the following steps:

(a) Aurora extend the existing 22kV line from the Comstock Mine to the plateau facility area: 5 km @ $50,000/km = $250,000

(b) Construction of a substation at the Plateau facility area to provide 415V power for these facilities and 11kV power for the mine. Estimate based on all new equipment = $200,000

(c) Install an 11kV line to the portal as a combined ABC above ground line, buried in a trench and laid on the surface. Provision of a skid mounted sub-station at the portal to provide 1kV and 415V power to the mine and the portal facilities. Estimate based on all new equipment = $150,000

(d) When the decline is halfway down (500 m) a borehole would be drilled from the surface to the decline and the 11kV line relocated down that hole and connected to the skid mounted transformer which would be relocated from surface to underground. Estimated cost = $50,000

An electrical engineering consultant would be required to manage and supervise the above work. Estimated cost = $50,000

The total estimate for the above electrical work, based on all new equipment, is $700,000. However, a combination of negotiations with government over power supply and the purchase of second-hand major equipment items will probably reduce this to $650-$700,000.

A budget estimate for power installation is = $700,000

3.2.4 Operating costs

A number of infrastructure operating items are budgeted for as it is difficult to absorb them in specific project areas.

These items are:

- power consumption
- diesel
- site maintenance and support

Electric power consumption is difficult to estimate because of variable loads during Stage 1.

For the first half of Stage 1, major power users will be the decline development (jumbo, fan, pump, compressor) and workshop.

For the second half can be added the underground drills. Average demand over an 8-month period will be in the order of 400kW. Cost is determined as a combination of peak demand and unit consumption, and a budget estimate of $15,000/month for 8 months has been calculated.

Total budget estimate = $120,000

Diesel will be consumed during Stage 1 by the decline contractor in the underground loader and trucks, and by the access road contractor in trucks, loader and excavator (and possibly a mobile crusher). The cost for diesel will be included in the contract rates.

Diesel should be stored only at the plateau facility and distributed/dispensed from that facility.

Diesel for day-to-day light vehicles travelling to and from Zeehan should be the responsibility of the individual contractor and sourced from off-site.

Other diesel consumption is estimated at 100 l/day = 3,000 l/month = $2,000/month = $16,000 for Stage 1.

If one contractor is responsible for both the road and decline developments, it would be advantageous for them to supply their own fuel into an Allegiance facility.

Total diesel estimate = $16,000

Site maintenance and support covers contract maintenance of waste, toilet and cleaning facilities at both the plateau and portal sites.

Budget estimate $5,000/month = $50,000 for Stage 1.

Total operating costs:

	Per Month	Stage 1
Power	15,000	120,000
Diesel	2,000	16,000
Support	5,000	50,000
Total	**$22,000**	**$186,000**

3.2.5 Infrastructure cost summary:

Plateau facilities	200,000
Portal facilities	65,000
Power installation	700,000
Operating costs	186,000
Total Infrastructure Budget:	**$1,151,000**

3.3 Decline Development:

A 5.5m High x 5.0m wide, -1:7 gradient decline will be developed from approx. to 2110 m RL to 1960 m RL (150 m vertically). The decline length will be 1081m and provide access opportunities to drill the ore body and allow bulk sampling in future stages.

A further 120m of orebody access drives,105m of stockpiles and 20m of future decline stubs have been planned. No specific allowance has been made for diamond drill cuddies given the relatively small amount of development required.

Budget prices for decline development were acquired from a variety of contractors. The higher of the two lowest quotes, rounded up to nearest $100/m, was taken as a benchmark figure. Ie $2800/m of decline advance.
The total cost of decline is estimated to be:-

Accesses	60 x 2	= 120m
Stockpiles	17.5 x 6	= 105m
Future	10 x 2	= 20m
Subtotal		245m
Decline		= 1,081m
Total		= 1,326
Estimate of decline cost		1,326m x $2,800/m = $3,712,800.

Estimate $3,713,000

Decline costs include Mobilisation, Declining, Ground Support, Meshing, De-mobilisation and overhaul from decline face to a disposal site.
An indicative estimate of ground support is for fully grouted friction bolts, 1.5m X 1.5m spacing and "burden". This equates to eight bolts for every 1.5m. ie four in the backs and two in each wall.

3.4 Stage 1 Technical Studies:

Preceding and concurrent with development of the Stage 1 Viking Decline, a range of technical studies will be completed:

(i) geological mapping and resource definition
(ii) geotechnical and mine planning (for Stage 2)
(iii) metallurgical test work
(iv) environmental studies and monitoring programs

Information from these studies will be incorporated into a Final/Bankable Feasibility Study on the full scale development of the Avebury Mine.

Indicative costs:

Cost estimates for the above studies are:

(i)	geological mapping and resource definition	830,000
(ii)	geotechnical and mine planning (for Stage 2)	150,000
(iii)	metallurgical test work	150,000
(iv)	environmental studies and monitoring	150,000
	Total	**$1,280,000**

3.4.1 Geological studies and resource/reserve definition

During development of the Viking Decline, the following geological studies will be undertaken:

- geological mapping of the decline
- sampling of decline waste
- detailed drilling of Viking and North Avebury

Decline mapping:

Detailed geological mapping of the decline is required to assist with resource interpretation, and resource potential assessments. Sampling of mineralised sections will also be required.

Decline waste sampling:

The DPEMP for Stage 1 requires that non-acid forming rock can be used to construct the main access road whilst potentially acid forming rocks are to be encapsulated in clay in a special disposal area.

These requirements will necessitate a geologist mapping and sampling decline development waste on a daily basis.

Resource/Reserve drilling:

It is proposed to define a mineable resource/reserve of 1 Mt in the Viking and North Avebury deposits above 1960 RL. This will be sufficient for the initial 3 years of mine production at a mining rate of 300,000 tpa.

A maximum drill pattern of 50 m x 50 m is planned, using two electric drill rigs. Drilling will commence as soon as drill cuddies are available along the decline, estimated to be 2-3 months from start of declining. Total metreage is estimated as 7,000 m. Drilling patterns are shown in the attached sections and projections.

Once the drilling is completed, and data collated, an identified mineral resource estimate will be undertaken by an independent consultant.

Cost estimate:

– Coring $80/m 7,000 m	560,000
– Drilling supplies $5/m	35,000
– Assaying $20/sample, 700 samples	15,000
– Surveying (41 holes)	15,000
– Geologist and technician (6 days/wk, 40 weeks, 240 days @ $750/day all found	180,000
– Resource Consultant - 1 month	25,000
Estimated geological costs:	**$830,000**

3.4.2 Geotechnical and mine planning studies

During construction of the Stage 1 Viking Decline, various geotechnical and mine planning studies will be undertaken with the following objectives:

– optimise design of a mine capable of producing 300,000 tpa for the initial three years of operation, and capable of expansion either during or beyond that period

– establish mine development and production costs for incorporation in a Final/Bankable Feasibility Study

These studies will be undertaken by a major consulting firm throughout the Viking Decline development period (9 months). The consulting firm will work closely with the groups undertaking the geological and resource definition studies, and the metallurgical test work.

For the purposes of cost estimation for the Business Plan, it is assumed a senior geotechnical/mining engineering consultant will be attached to the project for 50% of their time over a 9-month period, at an estimated cost of $100,000.

Support costs (test work, travel, meetings, reporting, etc) are estimated at 50% of professional time; ie, $50,000.

Estimate total: = $150,000

3.4.3 Metallurgical studies:

Further metallurgical test work will be undertaken by potential buyers of the ore for the first three years of production.

This work is necessary for:

– design modifications for the existing mill
– negotiation of the ore-purchasing agreement between Allegiance and the ore buyer

Samples for this test work will come from:

– cored drill holes completed from the decline
– bulk samples obtained from two cross-cuts developed into the mineralisation from the decline

The cost of acquiring these samples is built into the resource definition drilling program (core samples) and the decline development program (bulk samples).

The cost of undertaking the metallurgical test work will be subject to negotiation between Allegiance and the ore-buyer. For the purpose of this Business Plan, it is assumed the costs are split 50:50.

The program would probably involve one metallurgist, one technician and one consultant/senior metallurgist undertaking laboratory test work and flow sheet design work over a 2-3 month period.

Personnel costs for such a program are estimated as $75,000 with support and material costs (laboratory use, meetings, travel, reporting etc) of $75,000.

Estimate total: = $150,000

3.4.4 Environmental and OH & S management

Stage 1 environmental management consists of two principal components:

– development of an operations environment management plan prior to commencement of Stage 1 work

– environmental monitoring and reporting during Stage 1 development

Operating Environment Management Plan (EMP):

The Stage 1 DPEMP requires Allegiance to prepare an operations EMP prior to commencing Stage 1 work. The EMP will include the following:

– completion of flora and fauna surveys
– aboriginal heritage survey
– historic heritage survey

The final EMP document will address all aspects of environmental management for Stage 1 and will be an operational manual.

Stage 1 environmental consultants, NSR, estimate this work will cost $40,000, (some of which will be absorbed into pre-development costs).

Environmental monitoring and reporting:

During Stage 1 development, the following monitoring and reporting programs will be required:

– water quality
– sediment quality
– benthic microinvertibrates

The principal program is determination of Stage 1 impacts on water quality. Routine sampling of streams will be undertaken by a technician and reviewed regularly by NSR.

The budget for this item covers analytical costs only. The technician cost is absorbed elsewhere (technical programs).

Estimated environmental monitoring budget = $40,000

O H & S monitoring and reporting:

Initial test work indicates that some decline waste rock and mineralisation contains actinolite and tremolite and that these minerals are present in trace amounts as respirable asbestos.

During development of the decline it will be necessary to monitor air quality with particular emphasis on respirable asbestos, and silica determinations. Depending on the results of these programs it will be necessary to develop and implement appropriate management programs.

During placement of decline waste rock along the access road and possible crushing and handling of this material, similar monitoring programs will be undertaken and appropriate management programs implemented.

This work will be designed, initiated and evaluated by a qualified occupational hygenist and routinely undertaken by the mine technician.

Budget estimate for OH & S monitoring = $70,000

3.5 Stage 2 DPEMP:

During implementation of Stage 1 development, it will be necessary to prepare and submit a Development Proposal and Environment Management Plan for Stage 2 production.

The Stage 2 DPEMP will focus on issues associated with trucking a minimum 300,000 tpa of ore from Avebury to an off-site mill. This will involve a major upgrade of 9 km of the Trial Harbour Road, an increase in traffic on State highways and impacts on one/two west coast towns.

Given positive outcomes from Stage 1 technical studies, it will be commercially important to minimise the time gap between completion of Stage 1 and commencement of Stage 2 production.

One step in achieving this minimum time gap is to schedule the completed Stage 2 DPEMP for submission to governments as soon as practical following the commencement of Stage 1.

A cost estimate for completion of the Stage 2 DPEMP is $150,000.

3.6 Final Feasibility Study:

During development of the decline and execution of Stage 1 technical and environmental studies, a final/bankable feasibility study on Stage 2 production will have to be prepared by an independent consultant.

The study will have two principal objectives:

(a) quantify the commercial outcomes of Stage 2
(b) facilitate capital raising to implement Stage 2

Completion of the study will not be possible before the end of Stage 1. However, to minimise the time gap between Stages 1 and 2 it will be prudent to commence the study midway through Stage 1 so as to schedule its finalisation close to completion of Stage 1.

A cost estimate for completion of the Stage 2 Final Feasibility Study is $250,000.

3.7 Management Costs:

Most of the personnel costs for the technical program, assisting consultants and contractors have been included in component cost estimates above.

However, these component costs do not include:

- Project Manager
- Mine Manager
- Allegiance office costs

Section 5 below describes the functions of the Project and Mine Managers.

Cost of the **Project Manager** will reflect time spent on the project and other project functions covered.

Estimated cost = $100,000

Cost of the **Mine Manager** will also reflect time spent on the project, but estimated at this stage to be 50% of a full-time position.

Estimated cost = $100,000

Allegiance office costs cover time spent on Stage 1 by directors, administrative personnel and office costs including insurances.

Allegiance estimate of this cost for Stage 1 = $200,000

Estimated total Stage 1 management cost = $400,000

4.0 SCHEDULE AND BUDGET

4.1 Schedule:

The attached schedule is divided into two components:

- pre-Stage 1 development activities: 6 months
- Stage 1 development: 12 months

The 6-month ***pre-development activities*** principally address permitting, planning, tendering, and identification of equipment and contractors. The longest time-line item is the DPEMP process which has now commenced (early May 2003). The only way to significantly shorten the pre-development period is to shorten the DPEMP process, and that would be difficult because of statutory requirements.

If, for some reason, the DPEMP process was shortened to, say, 4 months, it would be possible to re-schedule all other pre-development activities into that same 4-month period.

Stage 1 development consists of 3 principal, sequential components:

- infrastructure development (3 months)
- decline development and technical studies (8 months)
- assessment (1 month)

Limited scope exists to shorten the infrastructure development, with a best-case scenario of 2 months.

It is unlikely the decline, with associated cross-cuts, stubs, etc could be completed in less than 8 months.

Critical to the above schedule is the raising of project capital.

If capital raising was left until the end of the pre-development activities, the schedule would extend beyond the 18-month total.

If capital raising was completed prior to the end of the pre-development activities, it may be possible to re-schedule some of the Stage 1 infrastructure development into the pre-development phase, thereby reducing the project to less than the 18-month total.

4.2 Budget:

The Stage 1 development budget estimate totals $7.44M. This estimate does not include GST or a contingency component.

It also does not include the pre-development activities identified in the schedule. The cost of these activities is relatively minor and has been budgeted for in on-going company exploration expenditure.

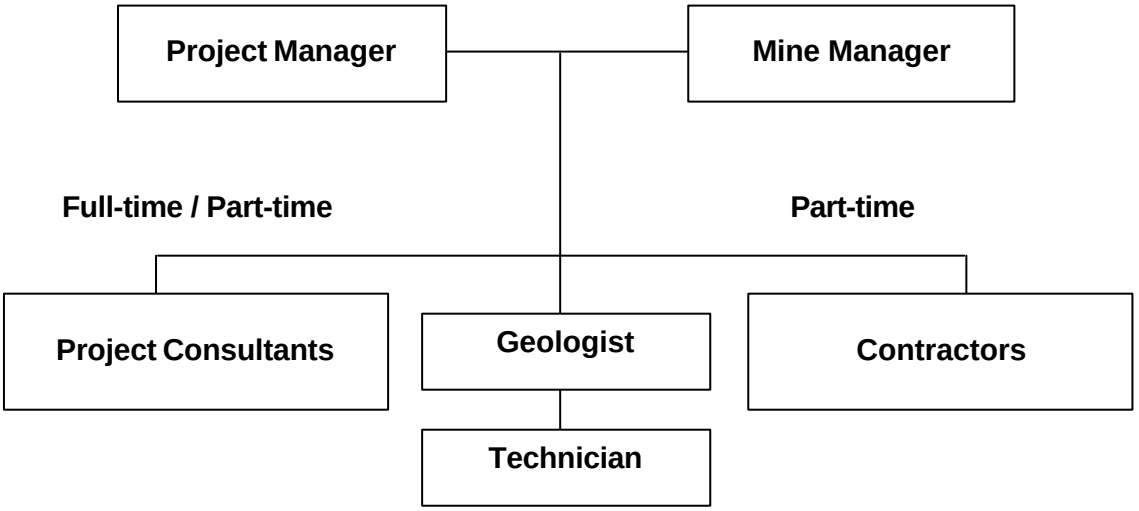
Budget Summary:

Access road and box-cut		**500,000**
Infrastructure		
plateau facilities	200,000	
portal facilities	65,000	
grid power	700,000	
operating costs	186,000	
Infrastructure sub-total		**1,151,000**
Decline development		**3,713,000**
Technical studies		
geology	830,000	
geotechnical	150,000	
metallurgy	150,000	
environmental/OH & S	150,000	
Technical sub-total		**1,280,000**
Stage 2 DPEMP		**150,000**
Stage 2 Feasibility Study		**250,000**
Management costs		**400,000**
STAGE 1 DEVELOPMENT TOTAL:		**$7,444,000**

The budget is most sensitive to over-runs on the decline development item. Unexpected ground condition problems could result in higher expenditure.

5. MANAGEMENT AND PLANNING

Because of the relatively small nature of Stage 1, the management structure should be flat, and supported by a designated team of consultants and contractors as required.



- Mining
- Metallurgy
- Environmental
- Resource geology
- Electrical
- Infrastructure

- Mining
- Resource drilling
- Access development
- Support services (surveying, drafting data base management, etc)

Principal responsibilities for the **Project Manager** would be:

- overall management of Stage 1
- planning and permitting for Stage 2

- statutory reporting and environmental monitoring programs
- public relations

The position may not be full-time and the incumbent could also cover other functions on the project when the need arises.

Principal responsibilities for the **Mine Manager** would be:

- supervision of the decline to ensure it was developed and operated in a safe and efficient manner
- assist with mine planning for Stage 2

The Mine Manager would have to be an experienced qualified mining engineer with a Mine Manager's Certificate. The position need not be either full-time or as an Allegiance employee; ie. the Mine Manager could be either a contract position or supplied by the project mining consultant company.

A **geologist** with 2-3 years experience will be required to undertake the following duties:

- day to day mapping of the decline
- implement the underground drilling program
- assist the consultant geologist with the resource/reserve estimation

An experienced **technician** will be required to assist the geologist with the mapping and drilling programs.

Both the geologist and technician can also be responsible for implementing the environmental and OH & S monitoring programs under the supervision of the relevant consultants.

Neither of these positions need to be filled prior to actual commencement of the decline.

A team of **project consultants** will be required to assist with implementation of Stage 1 and planning of Stage 2. The cost of these consultants is included in relevant sections above.

A range of **contractors**, mainly sourced locally, will be required for Stage 1 development. Contractor costs are included in relevant sections above.

Yours sincerely,
BFP CONSULTANTS
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Gary Davison
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