

CONCEPT STUDY REPORT

to

BEZANT RESOURCES PLC

for the

Mankayan Copper Project

in

THE PHILIPPINES

Document Number: MANK01-09-REP-009.doc

Rev. 4

Date: 24 February 2011



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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

TWP Australia Pty Ltd (TWP) was commissioned by Bezant Resources Plc (Bezant) to undertake a Concept Study for the Mankayan Copper Project in the Philippines. TWP commissioned Mining Plus to assist with the Mining Study Scope of Work.

TWP commenced the Concept Study in July 2010 and completed the 1st draft report on 29 October 2010. A value engineering exercise was undertaken to improve the economics of the project. This exercise was completed on the 7th January 2011. This study was conducted within an order of magnitude level of accuracy of +35% to -30%.

1.2 SCOPE OF WORK

The Concept Study scope of work included the following:

- Resource classification;
- Mining study;
- Vertical shaft ore extraction system study;
- Ventilation and refrigeration study;
- Surface infrastructure study;
- Processing facility study;
- CAPEX and OPEX estimation; and the
- Techno financial modelling.

In working with Bezant, TWP engaged the services of Mining Plus to undertake the development of the mining study component of the Concept Study under the management of TWP. In addition TWP fulfilled a Peer Review role of the underground mining study deliverables developed by Mining Plus. This mining study scope of work included the following:

- Geotechnical assessment of the orebody against the proposed mining method;
- Completion of a concept level mine design and an integrated mine schedule;
- Compilation of mine equipment and manning schedules;
- Capital and operating cost estimates; and
- Economic viability and financial evaluation of the project.

1.3 CONCEPT STUDY REPORT

The Concept Study Report – Doc No: MANK01-09-REP-009 (this document) comprises of the following documents as Appendices to this Report (but available as separate documents):

Appendix A - Guinaoang Cu-Au Deposit Resource Description – Mining Plus - Doc No: MCBEZM21-PMRS-002 – 10th November 2010.





- Appendix B Mankayan Project Reserve Statement Mining Plus 10th November 2010.
- Appendix C Mining Concept Study Report Mining Plus Doc No: MCBEZM21- PMFR-004.
- Appendix D Underground Access and Ore Extraction Concept Study Report TWP Australia Doc No: MANK01-22-REP-002.
- Appendix E Processing Facility Concept Study Report TWP Australia MANK01- 13-REP-001.

1.4 **PROJECT OVERVIEW**

The Guinaoang porphyry copper gold deposit (The Mankayan Project) is an undeveloped resource with underground mine potential. With reference to Figure 1, the deposit is adjacent to the copper-gold mine owned and operated by Lepanto Consolidated Mining.

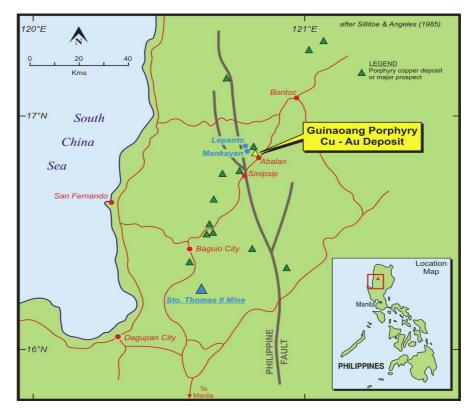


Figure 1. Mankayan Project location

The Guinaoang orebody is a copper-gold deposit located approximately 240km north of Manila and 6km south-east of the towns of Mankayan and Lepanto, in the Benguet Province on the Island of Luzon in the Republic of the Philippines. The geographical coordinates are 16°51' 51" North, 120°46' 56" East.

The town of Mankayan has a population of around 34,563 housed in 6,495 households. The Philippines has a tropical climate with a mean annual temperature of approximately 27 °C. The country has two seasons; the wet season which occurs from May to October and the dry season which occurs from November to April. Typhoons often occur in the wet season.





The Mankayan Project was acquired in 2007 with a 39 year history of resource definition by a multiple of companies. A definition drilling programme consisting of approximately 10,000 metres of diamond drilling undertaken over a two year period by Bezant Resources was conducted in parallel with an independent historic data compilation project. The results of the drilling campaign, together with the independent historic data compilation project, form the basis of the information applied in this Concept Study.

The Guinaoang porphyry copper-gold mineral resource is 221.6 million tonnes Indicated and 36.2 million tonnes Inferred at a 0.4% copper cut-off, grading at 0.49% for copper and 0.52 g/t for gold (Sulway, 2009).

1.5 **RESOURCE DESCRIPTION**

TWP commissioned Mining Plus to conduct a technical review of the resource data. The purpose of the technical review was for the report to serve as a prerequisite to the subsequent estimation of Ore Reserves compliant to JORC reporting standards undertaken by Mining Plus.

The Scope of Work was to conduct a desktop review of the technical data, procedures, parameters and results followed in previous studies by Messers R Sulway and I Jones, of Snowden Mining Industry Consultants reported in July 2009. The desktop review was designed to:

- Provide a general, early-stage assessment of the quality and reliability on matters of a technical matter;
- Prepare Bezant Resources Plc for a more detailed technical audit, if required: and
- Make recommendations with respect to those specific technical matters that might translate to unacceptable risk for the project.

The desktop study determined that the work undertaken by Messers R Sulway and I Jones, of Snowden Mining Industry Consultants in July 2009 followed an approach, methodology and reporting standard which was of high quality and compliant to the JORC reporting criteria. The data package and block model provided has the necessary attributes with sufficient information suitable for mine planning purposes. The issues identified in the Desktop Review report do not pose a significant risk to the project when using the resource block model to undertake a Scoping Study and mine plan.

1.6 **RESERVE STATEMENT**

As at the 10th November 2010, the Total Ore Reserve for the Mankayan Project, Guinaoang orebody, is 189 million tonnes at 0.46% Copper and 0.49g/t Gold and is in accordance with the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore reserves 2004 edition.





1.7 MINING STUDY

TWP commissioned Mining Plus to complete a concept mine design study. The Concept Study determined the block caving mining method to be the most suitable extraction method as block caving is considered an appropriate and common method to mine large underground deposits such as Guinaoang, providing the characteristics of the rock mass lend the orebody to be suitable for caving. Figure 2 below affords an isometric view of the block cave, decline access way and the two vertical shaft systems.

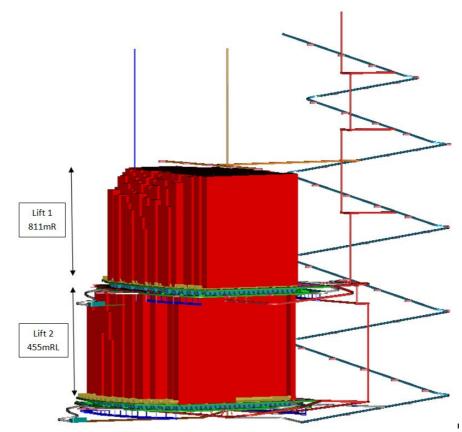


Figure 2. Isometric View of the Guinaoang Mine Design

The mine comprises of a ventilation shaft, a haulage shaft for ore hoisting and a decline ramp used primarily to transport personnel to and from the mine workings, as well as to haul waste to the surface dumps. This allows for uninterrupted ore haulage through the shaft without delays incurred for transporting personnel.

An annual mine production rate of 12Mtpa was selected resulting in a mine life of 42 years. This production rate was seen to be well within the capabilities of the orebody and also reduced the requirement for a second hoisting shaft thus keeping capital infrastructure costs down. Further, 12Mtpa was identified by TWP as being the maximum tonnage able to be hoisted through a single shaft hoisting configuration.





With reference to Table 1, an initial marginal cut-off grade of 0.20%CuEq¹ was determined based on indicative operating costs. The marginal cut off grade established the mining limits required to complete the resultant mine design and cave footprint. The complete mine design was evaluated for approximately 400Mt of ore at an average grade of 0.38% copper and 0.42g/t gold. This includes all indicated, inferred and unclassified material incorporated by the mine design.

Mining Parameter	Quantity
OreTonnes (tonnes)	400,054,062
Cu. Grade (%)	0.38
Au. Grade (g/t)	0.42
Recovered Cu. Metal (tonnes)	1,432,696
Recovered Au. Metal (oz.)	4,015,179
Capital Development (m)	37,664
Operating Development (m)	94,909
Longhole Drilling (m)	2,566,150
Tonne Kilometres Tramming	32,906,897

 Table 1. Mine Physical Parameters for the Guinaoang Deposit

Following the mine design, detailed operating and capital cost estimates were finalised. The table below shows the various mining costs per tonne.

	De	velopment	Caving		Overall
Ore Drive Tonnes		5,072,525	-		5,072,525
Production Tonnes		-	394,981,538	:	394,981,538
Cost per tonne (ex. Indirect Mining Costs)	\$	62.27	\$ 7.34	\$	8.03
Cost per tonne (inc. Indirect Mining Costs)	\$	72.30	\$ 14.78	\$	16.20
Revenue per metal tonne	\$	6,942.82	\$ 6,942.82	\$	6,942.82
COG (ex Indirect Mining Costs)		0.90	0.11		0.12
COG (incl Indirect Mining Costs)		1.04	0.21		0.23

Table 2 - Mining Cost per Tonne

Upon completion of the operating cost estimates, the marginal cut off grade was recalculated. A higher cut off grade was calculated for the project than that which was used initially to determine the cave footprint. This was due to some higher than anticipated operating costs associated with the vertical haulage and underground crushing systems.

¹ CuEQ=Cu+((Cu/Au)xAu)



A total cost of US\$21.01c/ore tonne (inclusive of capital expenditure, royalties and processing) was determined from the capital and operating cost estimates, correlating to an operating cost of US\$ 16.20c/ore tonne (exclusive of royalties).

At a discount rate of 7.75% and after tax and royalties, the Mankayan Project returns a positive NPV in the approximate order of US\$199m and a net cash flow of US\$3,384m. An internal rate of return (IRR) of 10.2% is associated with this project. The cash flows associated with the project are summarised in Table 3 below.

Description	Totolo
Revenue	Totals
Recovered Cu. (t)	1,432,696
Copper Price (US\$/t)	6,614
Recovered Au. (oz)	4,015,179
Gold Price (US\$/oz)	1000
Revenue \$	13,490,836,882
Revenue \$/t	33.72
Costs	
Capital Mining Costs (\$)	198,993,864
Capital Infrastructure Costs (\$)	1,189,267,409
Equipment Ownership Costs (\$)	268,629,605
Mining Operating Costs(\$) excluding Processing	3,687,084,035
Processing Cost (\$)	2,460,332,487
Admin and Tech Services (\$)	332,663,356
Royalties (\$)	269,067,383
Total Costs (\$)	8,406,038,140
Capital Mining (\$/t)	0.50
Capital Infrastructure (\$/t)	2.97
Equipment Ownership Costs (\$/t)	0.67
Mining Operating Costs excluding Processing (\$/t)	9.22
Processing Cost (\$/t)	6.15
Royalties (\$/t)	0.67
Admin and Tech Services (\$/t)	0.83
Cost \$/Ore Tonne	21.01
Cashflow (before Tax)	5,084,798,742
Tax	1,700,882,788
Cashflow (after Tax)	3,383,915,954
Discounted Cashflow	
Cumulative DCF	199,332,860
NPV	199,332,860

Table 3. Cashflows associated with the Project





Operating costs and US\$1,189M in capital infrastructure increases the period of time required for the project to return a positive discounted cashflow.

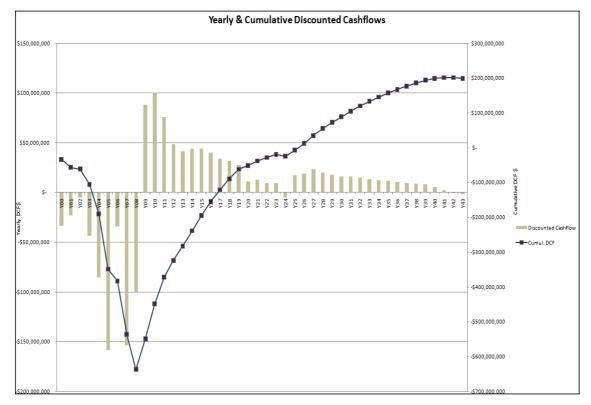


Figure 3 - Annual and Cumulative Discounted Cashflows for the Project

With reference to Table 4 and Figure 4 below, mining operating costs, capital infrastructure costs and the discount rate have the greatest effect on the value of the NPV. Mining operating costs and capital infrastructure costs account for approximately 87% of the total cost for the project. Variances in the commodity prices also prove to have a significant effect on the NPV.

	Commodity	Processing	Capital Infrastructure	Capital Mining	Operating
Sensitivity(%)	Prices	Costs	Costs	Costs	Costs
+20	\$554,360,511	\$131,851,983	\$99,030,831	\$181,744,323	\$78,762,747
+15	\$469,900,669	\$148,722,202	\$124,794,669	\$186,141,457	\$109,831,867
+10	\$384,665,784	\$165,592,421	\$149,640,733	\$190,538,591	\$139,665,531
+5	\$292,003,362	\$182,462,640	\$174,486,796	\$194,935,726	\$169,499,195
+0	\$199,332,860	\$199,332,860	\$199,332,860	\$199,332,860	\$199,332,860
-5	\$106,662,308	\$216,203,079	\$224,178,923	\$203,729,994	\$229,166,524
-10	\$13,991,757	\$233,073,298	\$249,024,987	\$208,127,128	\$258,998,522
-15	-\$78,678,794	\$249,943,517	\$273,871,050	\$212,524,262	\$288,827,313
-20	-\$171,349,345	\$266,811,639	\$298,717,114	\$216,921,396	\$318,656,104

Table 4 - Sensitivity Table





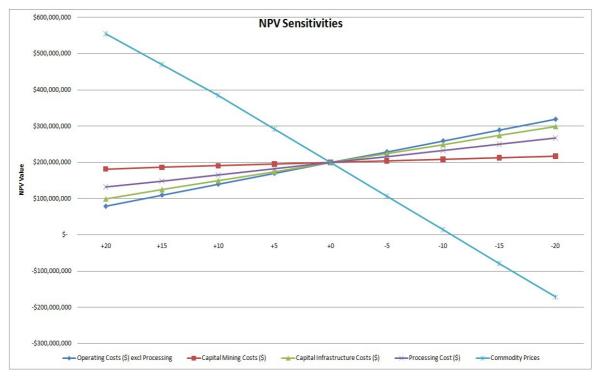


Figure 4 - NPV Results from the Cost and Commodity Price Sensitivities

Future studies should focus on refining the mining plan and associated capital expenditure to further enhance the viability of this project. This should be coupled with more detailed financial analysis of the project. Investigation into the most appropriate method of evaluating a project with an extended life of mine must be assessed to ensure the basis of the economic evaluation is sound.

1.8 VERTICAL SHAFT AND SURFACE INFRASTRUCTURE STUDY

TWP investigated various conceptual scenarios for accessing and extracting the underground ore body. The investigations covered vertical shaft access, ventilation, cooling and the surface infrastructure required to support the mining operation at a mining rate of 12 Mtpa as determined by the Mining Concept Study.

The investigations highlighted the requirement for two vertical shaft systems for the ventilation, cooling and rock hoisting. In considering the block caving mining method and the requirement to undertake primary crushing underground, consideration was given in the concept design to the likely size and mass of the underground crusher components. It was determined the crusher components exceed the rock winder hoisting capacity therefore a decline ramp was included in the design.

The early development of the decline ramp has additional advantages namely:

- The ramp can serve as a second means of egress from the underground mine, thus the ventilation shaft would not need to be equipped to convey personnel.
- The ramp can be used for exploration drilling, early development and or early underground access while the vertical shafts were being considered.



A trade off study is required on the sinking methodology of blind sink versus ream and sliping via the decline ramp, or a combination of these as this is likely to present a time and cost saving benefit which could offset the cost of developing the decline ramp. Furthermore, there is a trade-off required to consider sinking the shafts to approximately the 800m depth to access the first block cave cut and then to later deepen the shafts to approximately 1400m depth for the second block cave cut, as an alternative to sinking both shafts to final depth. These scenarios are likely to present the biggest impact on the financial viability of the project.

The up cast ventilation shaft is designed to be equipped with a brattice wall in order to split the down cast ventilation from the upcast ventilation requirements in the shaft. Approximately one third of the total ventilation air volume required underground via the ventilation shaft is required to supplement the downcast hoisting shaft with additional fresh air, as the upcast velocities are much higher than the main shaft down cast velocities.

Primary air extraction fans will be located on top of the upcast segment of the ventilation shaft to draw the used air out of the mine. The mine is considered a hot mine at depths close to the second lift and therefore, large refrigeration units will be required to access the second block cave. The mine would then need to be equipped with bulk air coolers on surface to pre-cool the intake air.

A pre-feasibility is required to undertake further trade off studies to evaluate the potential cost savings of totally eliminating the access ramp versus equipping the ventilation shaft with a second outlet winder of sufficient capacity to accommodate slinging the crusher components down the shaft. This winder is likely to be a drum winder equipped with doubling down sheaves to sling down the heavy mass (60 tons) crusher components. This rope could also be used as one of the sinking stage ropes and the other stage rope kept as a spare rope.

1.8.1 Access Strategy

A number of shaft configurations were investigated, specifically the vertical shaft system, winding arrangements, shaft services, shaft brace, steel conveyance guides versus guide ropes etc.

The scope of the work for the shaft infrastructure design is an Order of Magnitude estimate with listed options for the infrastructure requirements, mine capital expenditure and operational costs. The blind sinking of the two vertical shafts and a decline ramp was scheduled and the associated capital estimated in this study phase.

In view of the Greenfields nature of the Project, two underground access Concepts were considered, with Concept 1 having two Options.

Concept 1 – Two vertical shafts plus a ramp decline, with sub options as follows:

Option 1: Two vertical shafts of which one would be dedicated to upcast (return air) ventilation;

Option 2: Two vertical shafts with hoisting in both. One shaft dedicated to rock hoisting and the other equipped with a brattice wall to allow man hoisting in the fresh air intake compartment and the other compartment used for return air with fans on surface; and





Concept 2 – The above two vertical shaft options but without a ramp.

For Concept 2, as the shaft complex does not connect with a ramp, a conveyance capable of removing all personnel from the underground workings within a reasonable time (e.g. 24 hours) would have to be provided in the ventilation shaft.

For the two concepts, the following five sequencing combinations were considered:

- develop ramp and blind sink ventilation shaft, then raise bore and slipe main shaft;
- develop ramp and blind sink main shaft, then raise bore and slipe ventilation shaft;
- develop ramp and blind sink both main and ventilation shafts;
- blind sinking main and ventilation shafts only;
- develop ramp and sink both shafts to first main production level at 750m depth, then block caving phase 1, during and after which the remainder of the ramp and shaft deepening are developed.

These combinations require further review during the next project phase, to identify the best possible option.

1.8.2 Capital Cost Estimates

Concept 1, Option 2 is the preferred option. The capital estimate, is based on recent feasibility studies conducted by TWP on similar sized vertical shafts in the North West Province of South Africa. The estimate was in 2008 terms and was then escalated using the Marshall & Swift index.

The capital cost estimate for Option 2 is approximately US\$460M. The estimate includes costs for shaft sinking, lateral development, underground crushing and conveying, shaft electrical installations, shaft surface infrastructure, EPCM and a 20% contingency allowance. Capital cost requirements for the two Koepe winders have been separately calculated, and are estimated at approx. US\$39.2M. The capital cost required for the refrigeration plant and related equipment is estimated to be in the order of US\$140M.

The total inclusive capital cost estimate also considers the following:

- Sinking and equipping the vertical shafts;
- Shaft infrastructure required surface and underground;
- Refrigeration plant;
- Crusher installations; and
- Pump station.





1.8.3 Operating Cost Estimates

The shaft operating cost estimate is US\$5.86 / tonne, comprising of the following estimates:

Hoisting cost electricity:	US\$0.54 / tonne
Refrigeration electricity:	US\$1.71 / tonne
Materials:	US\$3.18 / tonne
Services:	US\$0.43 / tonne

The estimate has been derived following a hoist benchmarking exercise and using recent operating estimates prepared for the neighbouring Lepanto operation in the Philippines.

The selected vertical shaft options were premised on a conventional access system combined with a ramp access decline, which minimises technical and commercial risk. The configuration also provides the best combination of resource utilisation and mining flexibility.

1.9 PROCESSING FACILITY

The processing facility is based on the concept mine design with an annual mine production rate of 12 Mtpa. A simple block flow diagram was conceptualised supported by an order of magnitude capital and operating cost estimate.

The metallurgical testwork, vendor data and estimates form the basis of design. In order to develop a process flow diagram based on the block flow diagram and properly size equipment, further metallurgical test work is recommended in the prefeasibility study phase.

The concentrator flowsheet was based on Australian and international experience of proven operations, with high-throughput copper-gold ore treatment. The single processing line incorporates two-stage milling in closed circuit with cyclones, flash flotation cells and dedicated flash cleaner cells. A pebble crusher operates in closed circuit with the primary mill.

Mill cyclone overflow gravitates to rougher and scavenger flotation. Rougher concentrates are reground before cleaning. Scavenger and cleaner scavenger tails are thickened before discharge to the tailings storage facility. Copper and a portion of the gold are recovered by froth flotation to a copper sulphide concentrate, that is then sold to international or local smelters. The remaining gold is recovered on site as bullion, by gravity concentration of the flash flotation concentrate.

Concentrator operating costs were based on an estimate of consumables such as mill liners, steel balls, flotation reagents, water and electrical power. Flotation reagent cost estimates allow for the use of modern high-technology selective copper/gold collectors. Cyanide is not used in any part of the process.

The concentrate recoveries are estimated to be at 94% copper and 74% gold. The smelting recoveries are estimated at 96% for copper and gold. The cost of further refining copper and gold are at US\$100/t and US\$2.00/ounce respectively. These are preliminary figures and need to be confirmed during the pre-feasibility study Phase.





The total estimated capital cost of the plant is US\$497.5M and the operating cost is US\$6.15/t. These estimates are based on previous studies conducted by TWP, vendor data, information provided by the client and in-house costs in the Philippines.

1.10 FUTURE WORK PROGRAM

The Concept Study determined the project to be viable to progress into a Pre-feasibility Study phase based on the techno-economic modelling, the conceptual solutions determined and the recommendations listed in the future work program.

In progressing a Pre-feasibility Study it is recommended the study focus on refining the concept solutions and the associated CAPEX and OPEX cost estimates to a greater degree of accuracy. This must be coupled with further detailed financial analysis work including sensitivity modelling across the project. Investigation into the most appropriate method of evaluating a project with a relatively long life of mine must be assessed to ensure the basis of the economic evaluation is sound. A further recommendation is to improve the understanding and the interpretation of the ore body. Consideration should also be given to synergy that may exist between the Mankayan Project and the adjacent Lepanto Mining area containing the "Far South East Project" site.

1.10.1 Mining Design Studies

The following additional scope of work is to be considered in the Pre-feasibility Study:

- Complete a mining method trade off study and identify a single 'go forward' option.
- Complete an economic and productivity trade off analysis using shaft haulage versus conveyor decline.
- Evaluate the viability of completing the initial decline development down to the bulk sample drive to undertake both an in-fill and exploration diamond drilling program from this location as part of the feasibility study. The aim of the diamond drilling program is primarily to convert inferred resources to indicated as well as determining the extent the Guinaoang deposit extends to depth. If the exploratory drilling proved the deposit does extend beyond the current depth, the height of lift two can be increased to ensure the additional resource is captured with minimal additional development beyond that which is the current design. This would effectively result in a lower cost per ore tonne due to additional tonnes being mined with the same development expenditure. The pre-feasibility study should include costing of the diamond drilling program, which has not been included in this project.
- Primary fan requirements should be reviewed and appropriately staged over the life of mine to ensure over capitalisation does not occur.
- Review the southern extent of the orebody for its potential to be economically mined by a sublevel caving method, (the areas that were not mined within the cave as shown in Figure 30 of Appendix D).
- Review appropriateness of access to the mine via decline and quantify the benefits of this approach. Review the impact to the schedule and resultant NPV if the decline was excluded from the mine design.





- Utilisation of specific software for effective block cave scheduling and dilution estimation to achieve a higher degree of accuracy of mine grade.
- Conduct a review of typical development advance rates achieved with national labour in the Philippines.
- The weathering zone will require further investigation to provide increased details for ground support requirements while developing the upper areas of the decline, ventilation and haulage shafts.
- Determination of a shut off grade for draw columns in production.
- Review the strategy of using a contractor miner to complete development activities beyond excavation of the undercut perimeter drive.

Explore potential synergies with Lepanto Mining Company (and eventual owners of the Far South East Project) with regards to:

- Conveyor to San Fernando port for copper concentrates export. Savings in trucking along some of the unsuitable road networks.
- Toll treating the low grade material from the Guinaoang deposit or vice versa.
- The use of their airstrip (Lepanto) for the delivery of supplies.
- Shared accommodation facilities for any potential mining camps.

1.10.2 Mine Economics

The following additional scope of work is to be considered in the Pre-feasibility Study:

- Complete an assessment into mining the high-grade areas of the Guinaoang deposit effectively reducing the mine life and increasing the NPV. This may be achieved with reduced capital expenditure than that estimated in this project.
- Review appropriateness of access to the mine via decline and quantify the benefits thereof. Review the impact to the schedule and resultant NPV if the decline was excluded from the mine design.
- Conduct analysis into forward looking commodity prices and determine appropriate assumptions to vary commodity prices over the life of the project.
- Completion of operating and capital cost estimates to higher levels of accuracy.
- Benchmarking of in-country unit rates of similar projects should make up a component of this. Contractor margin and potential 'owner miner' costs should be included.
- Conduct benchmarking of predictive mine closure costs.
- Review the most appropriate method of financially evaluating a project with an extended mine life such as Mankayan. This is critical to ensure the basis of economic evaluation is sound.
- Included in this should be determination of an appropriate discount rate to be applied to projects within the Philippines.
- Determination of in-country labour rates in the mining industry.





• Review of the mining activities which are allocated as either operating or capital activities to ensure their respective costs are correctly apportioned.

1.10.3 Geotechnical

The following additional scope of work is to be considered in the Pre-feasibility Study:

- Geotechnical baseline data would require validation in the form of additional geotechnical verification bore holes. These holes to be drilled at an angle to accurately measure jointing information and rock mass quality.
- It is also imperative that a stress measurement program is implemented to determine the effects of local stress and induced stress on ground cavability.
- Both the joint orientation and stress measurement data is required to assist in deciding on an undercut development orientation.
- Establish a Concept mine model for three dimensional stress analyses to determine the induced stresses for adjustment to the RMR.

1.10.4 Hydrogeology

The following additional scope of work is to be considered in the Pre-feasibility Study:

- Groundwater data is essential for the Concept / feasibility stage to understand potential levels of influx and stability influence for cavability and subsidence. Hence, it is recommended to embark on a surface and groundwater study.
- Develop a detailed climate model for the project that includes surface hydrology, this will aid in the development of a Water Management Plan.
- An open dialogue with other operators in the mineral field to determine the broad hydrogeological risk variables.

1.10.5 Underground Access Studies

The following additional scope of work is to be considered in the Pre-feasibility Study:

- Identify and evaluate a number of options and combinations relating to the access, hoisting, cooling and mine design options;
- TWP has knowledge and understanding of technology used in developing high speed decline ramps for large underground mines. This technology significantly improves development timelines and should be considered in the pre-feasibility study phase.
- A trade off study needs to be considered in the sinking methodology of blind sink versus ream and sliping via the decline ramp, or a combination of these as this is likely to present a time and cost saving benefit which could offset the cost of developing the decline ramp.
- A trade off study is recommended to consider sinking the shafts to the 450m depth to access the first block cave cut and then to later deepen the shafts for the second block cave cut. These scenarios are likely to present the biggest impact on the financial viability of the project.





- The containment and removal of free water in the mine is likely to be a significant factor requiring further investigation in the Pre-feasibility Study.
- Consideration needs to be given in the Pre-feasibility Study to the requirements for auxiliary fans and ventilation ducting as these costs have not been considered in the Concept Study.
- The above will utilise a spray-chamber bulk air cooler (BAC) with a future ice bank.
- The requirements to cooling the mine require further consideration, including the phased introduction of an ice plant and variable inlet ventilation fans.
- The second shaft could be sunk subsequent to the first shaft being commissioned.
- The above could result in considerable savings and requires a detailed study in the Pre-feasibility Study phase.
- If national power is not available or insufficient, site generation would be required as an interim measure while temporary national power is made available. This option has not been estimated and requires confirmation in the pre-feasibility project phase.
- The cost of the pre-cementation should be included in the financial analysis of the entire project.
- Funding for the complete environmental authorisation process should be included in the pre-feasibility study phase.

1.10.6 Process Facility Studies

In the Pre-feasibility Study phase, it is important to ensure that the metallurgical plant design is aligned with the mining plan to ensure that variability of the ore is allowed for.

The recommended testwork for mineralogy and metallurgy should be undertaken to develop process flow diagram options and to verify the process design criteria and clarify the assumptions made. This involves (1) XRD and QEM-SCAN analysis, (2) testwork to determine comminution, flotation and material flow parameters and, (3) process modelling. Thickening / sedimentation testwork should be undertaken and a tailings dam design consultant should be engaged.

1.11 REFERENCE DOCUMENTATION

- The following historical reports provided by Bezant Resources PLC were considered in this Concept Study Report:
- Geological Modelling and database preparation for resource estimation for the Guinaoang Copper-Gold Property, Mankayan, Benguet, Philippines by C.A. Angeles 31 March, 2009;
- Snowdens Resource Estimate, Guinaoang Copper-Gold deposit Snowdens July,2009;
- Metallurgical Testwork Report A11703 Ammtec Ltd August, 2009;
- Summary report on the pre-feasibility level of Metallurgical testwork, Report MMS-BZT-001 – Metallurgical Management Services – October, 2009;





- UCS photographs and information Bezant Resources PLC;
- UCS samples Bezant Resources PLC; and
- UCS Samples with pt load strength Bezant Resources PLC.

1.12 APPENDICES

The appendices listed below form part of this report however are excluded from this document. All appendices are available as separate documents, upon formal request to Bezant Resources Plc.

- Appendix A Guinaoang Cu-Au Deposit Resource Description Mining Plus Doc No: MCBEZM21-PMRS-002 10TH November 2010.
- Appendix B Mankayan Project Reserve Statement Mining Plus 10th November 2010.
- Appendix C Mining Concept Study Report Mining Plus Doc No: MCBEZM21- PMFR-004.
- Appendix D Underground Access and Ore Extraction Concept Study Report TWP Australia Doc No: MANK01-22-REP-002.
- Appendix E Processing Facility Concept Study Report TWP Australia MANK01-13-REP-001.