WOODLARK GOLD PROJECT

EXECUTION UPDATE

1890-PM-REP-1078

NOTES FOR READER

A Definitive Feasibility Study (DFS) for the Woodlark Gold Project was finalised in November 2018. This report provides a Project update and details work completed since the 2018 DFS to achieve project execution readiness.

This report should be read in conjunction with the 2018 DFS. Where there is no change from the 2018 DFS it is noted in the report.

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

Geopacific Resources Limited (GPR), through its wholly owned subsidiary Woodlark Mining Limited (WML), is developing the Woodlark Gold Project (hereafter termed 'the Project'), which is located on Woodlark Island approximately 600 km east of Port Moresby and 300 km north-east of Alotau in Milne Bay Province, Papua New Guinea (PNG). WML holds a 100% interest in Mining Lease 508.

GPR published a Definitive Feasibility Study that was released in November 2018 (2018 DFS), following which the focus turned to execution planning and the completion of work to address any outstanding Project risks. In June 2020, GPR appointed an independent technical advisor to consolidate all the work that had been undertaken in the intervening period as well as facilitate a review of all aspects of the Project. Based on the findings a detailed work plan was initiated to move GPR and the Project to a high level of Project execution readiness by year end 2020. The core focus of the work program has been to prepare the Project for construction and operations, including detailed work on the Project execution plan resulting in specific changes and advances to the execution strategy.

Detailed contractual negotiations have been undertaken with all major contractors, equipment suppliers and service providers which has provided GPR with a very high level of certainty over capital and operational costs. The following contractors have been selected to facilitate the delivery of key aspects of the Project:

- Process plant design and construction – GR Engineering Services Limited (GRES).
- Contract mining[1] – HBS Machinery (HBS).
- Power generation – Contract Power Australia (CPA).
- Bulk Earthworks – HBS.
- Communities relocation houses & buildings – Rhodes (PNG) Limited (Rhodes).
- Wharf and causeway design – Madsen Giersing.
- Access roads and water storage dams design – Mincore Pty Ltd (Mincore).
- Communications design – CorpCloud Pty Ltd (CorpCloud).

[1] Mining to be carried out by HBS for the pre-strip and the first three years of operations.

The Project economics presented in this report underpin GPR's financing strategy with the firm pricing that has been received from vendors and contractors providing sufficient levels of pricing certainty for the company to appoint a preferred debt provider.

Finally, GPR has undergone a restructure of the Board and Management Team including engagement of key personnel to ensure the core competencies are in place to deliver successful outcomes for all stakeholders. The new Board and Management Team have significant global experience and bring an in-depth knowledge of operating in Papua New Guinea.

This report builds on the 2018 DFS and details further work completed to advance to Project execution.

1.1.1 Key Project Updates

Project Optimisation and De-Risking

Following completion of the 2018 DFS, the focus shifted to improving the level of confidence of all Project facets and completing work programs to mitigate identified Project risks, including:

- The Project implementation strategy was reviewed by the Owner's team during 2019 taking into consideration the Project schedule, allocation of risks and which parties were best placed to manage and mitigate the construction and operational risks. An Engineering, Procurement and Construction (EPC) contract model was adopted for the design, supply and construction of the process plant and associated facilities.
- Improved certainty in Project capital and operating cost estimates supported by actual tender pricing.
- Completion of Project cost estimates and schedule risk analysis with risk management specialists, Broadleaf Capital International.
- Project improvements and further value engineering studies to address independent technical expert (ITE) feedback.
- Amelioration of other Project risks (i.e. community and environment, human resources etc.) including continuing community engagement, implementation of a community health and safety education program and completion of ecosystem services and land use studies.
- Completion of important geotechnical investigations at the plant site and development of a ground improvement strategy and design by technical specialists Knight Piésold.

Execution Readiness

Execution planning has progressed to an advanced stage during Q3 and Q4 2020 as contracting strategies, Project team and corporate organisation structures have developed. Work streams which will enable an immediate commencement of construction works have been prioritised, including:

- Development of a high level Project execution strategy.
- Advancement of Front-End Engineering Design (FEED) for the process plant – targeting 25% completion by end Q1 2021 (17% completion achieved to date).
- Development of a contract and procurement plan and strategy.
- Selection of preferred suppliers for key project areas and commencement of contract negotiations with key major contractors, and release of tenders for other required infrastructure and services (i.e. permanent camp, non-process buildings, communications system).
- Tender and selection of long lead process plant equipment.
- Development of a short-term and long-term fuel supply strategy.
- Detailed implementation and interface planning in the development of a fully Integrated Project Management Schedule (IPMS).
- Completion of the detailed design of the ground improvement works for the plant and associated infrastructure.
- Progressed design of the onshore deep sea tailings placement (DSTP) pipeline to optimise the route, reduce environmental risk and ensure compliance with the Project Environment Permit.
- Selection of Construction Management System (CMS) supplied by GTS Software Pty Ltd as the cost control system software for managing and reporting on the construction budget.

Advancement of Critical Project Early Works

The first phase of Project development commenced in December 2019 with the mobilisation of supplies, equipment and personnel to site. Despite the challenges associated with COVID-19, the following works have been achieved:

- Clearing and construction of a significant portion of the new wharf access road.
- Clearing of approximately 50% of the plant footprint.

- Remediation of existing roads within the mining lease and the road between the mining lease and the airstrip located at Guasopa, including the replacement of several log bridges with steel culverts.
- Commenced identification and assessment of reliable quarries and borrow pits for backfill materials.
- Completed refurbishment of the existing exploration camp to provide accommodation for personnel prior to completion of the new permanent camp and support the early works program
- Clearing of 40% of the land requirements for the Kulumadau communities relocation.
- Commenced construction of new houses which was subsequently stopped due to community feedback and design concerns. A revised home design was agreed in Q4 2020 and construction of houses, the new school and one of the churches has re-commenced.
- Preparation for additional works to be completed during Q4 2020 and Q1 2021 including geotechnical testwork on the new wharf location, clearing and site preparation for the permanent accommodation camp and completion of the clearing and site preparation works at the process plant site.
- Signing of the Project Memorandum of Agreement with the landowners and the National, Provincial and Local Level Governments, and execution of a new Relocation Agreement.

Project Economics

The results of the updated Financial Model completed in November 2020 confirm elevated Project economics with improvements across all key metrics. The main highlights at a 100% owned Project level are as follows:

- 980 koz of gold produced.
- LOM revenue of A$2.2B.
- LOM net cashflow of A$575M (post-tax and capital repayment).
- Project net present value at 8% discount (NPV_8) of A$347M (post tax).
- Project payback period of 1.8 years (post-tax).
- Project internal rate of return (IRR) of 34% (post-tax).
- Average LOM all-in sustaining costs of A$1,239/oz.
- First gold produced Q4 2022.

Project Team Development

Board appointments since the completion of the 2018 DFS include Ian Murray and Sir Charles Lepani as Non-Executive Directors. Mr Murray, who has over 25 years' of mining experience in senior leadership positions, including the position of Managing Director of Gold Road Resources (Gold Road) and DRD Gold Ltd brings a wealth of financial, corporate, project development and operational experience to the Board. Sir Charles Lepani is a highly respected former diplomat who held the role of High Commissioner of PNG in Australia between 2005 and 2017. He has over 40 years' experience in both the public and private sectors representing Papua New Guinea as a Senior Diplomat and Advisor and offers a substantial degree of insight, understanding, and local expertise to the management of the Project.

The GPR Board appointed Mr Tim Richards as CEO in September 2020. Mr Richards is a mining engineer with a Masters of Business Administration from the University of Oxford and brings broad experience in open pit mining ranging from the study phase through to operations and mine management. He has extensive mining experience in Papua New Guinea having served as General Manager Simberi Operations for St Barbara Limited between 2013 and 2019.

Other significant appointments critical to the development of the Project include the addition of a highly skilled Technical Advisor reporting directly to the Board, a General Manager People and Performance, a Site Manager and a Construction Manager all with significant experience offshore and within the PNG mining sector.

1.1.2 Project Overview

Woodlark Island is sparsely populated with small villages scattered around the coastal fringes and inland locations. Residents typically live a subsistence lifestyle. The main administration centre is Guasopa in the south-eastern part of Woodlark Island. Kulumadau is the second largest village and is located within the proposed area of development. A signed agreement is in place with the Kulumadau residents to relocate the village to several locations outside of the mining lease by Q3 2021.

The Project entails a simple mining and processing route with open-cut mining of gold reserves at the Kulumadau, Busai and Woodlark King deposits. The mine plan utilises multi-staged pit designs providing early access to mineralisation which occurs near surface resulting in a stripping ratio of 4.1:1 over the life of the mine (LOM). Waste rock will be deposited in engineered waste rock dumps located adjacent to each pit.

Ore will be treated by a conventional carbon in leach (CIL) gold process plant. The plant will have a capacity of 2.4 million tonnes per annum (Mtpa) producing a total of 980,000 ounces of gold over a 13 year production life.

Plant tailings will be managed via a DSTP system linked to an approximately 12 km pipeline from the process plant to the north-east coast of Woodlark Island.

A Project Location Map is provided in Figure 1.1.1 and a General Site Layout in Figure 1.1.2.

Figure 1.1.1 Woodlark Gold Project Location

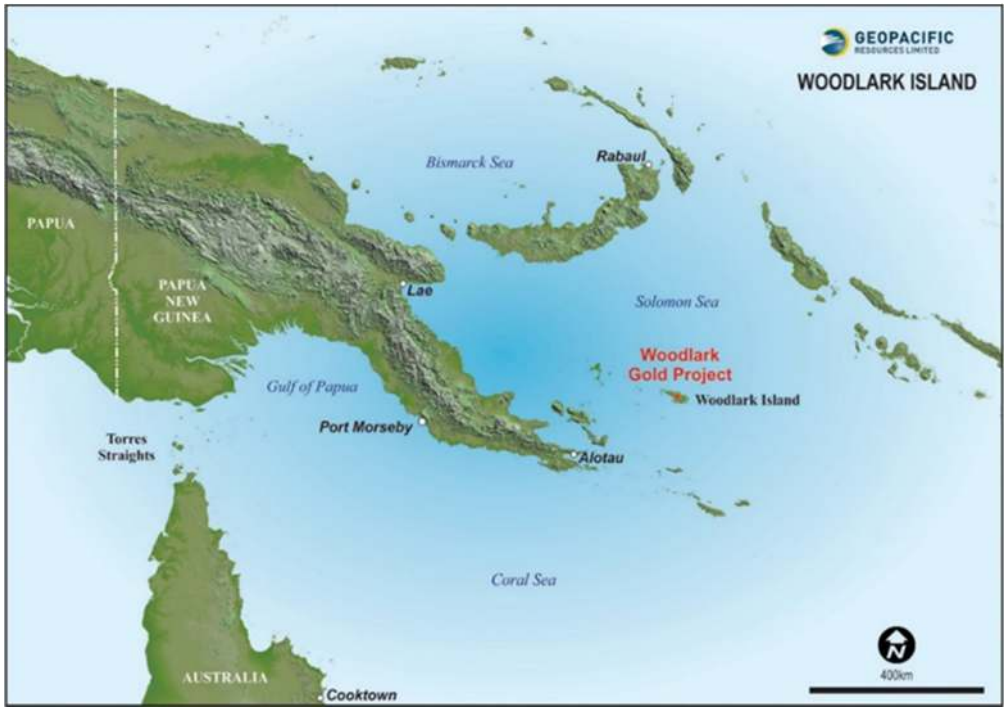


Figure 1.1.2 Woodlark Gold Project General Site Layout

1.1.3 Independent Consultants

Specialist independent consultants who contributed to this phase of work are listed in Table 1.1.1.

Table 1.1.1 Specialist Independent Consultants

Subject	Specialist Independent Consultant
Process design and engineering	GRES, Altrius Consulting
Pit optimisations & pit designs	Mining Plus
Ore Reserve Estimate	Mining Plus
Geotechnical and ground improvements	Knight Piésold
Communications design	CorpCloud
Access roads and dam design	Mincore
Capital costs	GRES, Axiom Project Services (Axiom)
Operating costs	GRES, Axiom, Mining Plus
Deep sea tailings placement system	Brass Engineering

1.2 Woodlark Gold Project Tenure

The Project Mining Lease (ML508) was granted in 2014 by the Minister of Mines with a validity of 20 years (expires in 2034). ML508 encompasses an area of 60 km^2 including the three reserve areas (Kulumadau, Busai and Woodlark King), additional areas of high exploration potential and areas for key Project infrastructure.

ML508 was approved by the PNG Government through the Mineral Resources Authority (MRA) following completion of a detailed Environmental Impact Statement (EIS), finalisation of Compensation and Relocation Agreements and a Memorandum of Agreement (MoA) with the local land owners and Provincial and Central Governments.

Several additional Leases for Mining Purposes (LMP) and Mining Easements (ME) have also been approved as part of the Project development.

In December 2018, an application was submitted to the MRA seeking an extension to Condition 7 of ML508 which specified that construction and commissioning of the Project must be completed by the 5th of January 2020. This was to provide time for Project financing activities and to account for the estimated 26 month build time detailed in the 2018 DFS. This application was approved on the 6th September 2019 with the following conditions:

- That Project financing was secured for the Project by 5th January 2021.
- That construction and commissioning is completed by July 2022.

Subsequent to this, given the uncertainties caused by COVID-19 and related travel and supply restrictions a further request for extension was submitted in August 2020 as follows:

- That Project financing be secured by 5th July 2021 (six month extension).
- That construction and commissioning be completed by 5th July 2023 (twelve month extension).
- This application is awaiting approval by the Mining Advisory Council.

In addition, since completion of the 2018 DFS, Geopacific has submitted two applications to the MRA for new mining easements, including tenure over the new proposed road between the process plant and the proposed wharf location and tenure over the new proposed DSTP pipeline route. Both applications are currently being assessed by the MRA.

Mining easement tenement ME86 which covered the previous wharf road route was relinquished in April 2020 as it is no longer required.

In May 2018, an application to amend certain conditions of the Environment Permit, originally issued on 17th February 2014 by the Department of Environment and Conservation (DEC) (now the Conservation and Environment Protection Authority - CEPA) with a validity of 20 years, was submitted. The amendments were approved and the amended Environment Permit was issued in May 2020.

1.3 Geology

Woodlark Island (locally known as Muyuw Island) is located on the northern margin of the Woodlark Basin, some 600 km east of Port Moresby.

The geology of Woodlark Island consists of basement Palaeocene-Eocene tholeiitic basalt and sediments (Loluai formation) overlain by mid-Miocene calc-alkaline to shoshonitic volcanics (Okiduse formation), which host the majority of known gold mineralisation. Woodlark Island is relatively flat with the highest point Mt Kabat, just 243 m above sea level. Most of Woodlark Island is covered by a Pleistocene age coral reef formation (Kiriwina formation), masking prospective volcanic sequences.

The second declared gold field in Papua, gold mining on Woodlark Island commenced in 1895 at several alluvial sites in the Suloga bay. Numerous alluvial prospects were developed in watersheds across the Okiduse formation, ahead of underground mining operations at Busai and Kulumadau in the early 20th century. Kulumadau was the deepest underground mine in PNG until the 1920s.

Three deposits, namely Kulumadau, Busai and Woodlark King (Boniavat), have undergone rigorous drill testing over a number of campaigns since the 1960s (~300,000 m), resulting in a combined JORC 2012 Mineral Resource of 47 Mt @ 1.04 g/t Au for 1.573 million oz Au.

Busai and Kulumadau are both interpreted as structurally controlled epithermal gold deposits. The deposits show evidence of complex paragenetic assemblages and variable degrees of structural overprint. The main difference between the two deposits is the overwhelming amount of brecciation and cataclasis at Kulumadau as compared to Busai. Both deposits remain open at depth and along strike.

Due to the significant presence of post-mineralisation Kiriwina formation sediments masking much of the prospective geology, very little regional scale exploration exists.

The extensive resource drilling database, geophysical surveys and limited surface exploration all indicate the widespread occurrence of gold mineralisation well outside the defined resources. Major regional structures associated with known gold resources are evident on geophysical images and form the principal targets for exploration.

1.3.1 Exploration

Exploration on Woodlark Island has been ongoing semi continuously from the early 1960s, beginning with the Bureau of Mineral Resources (BMR) undertaking surface geochemistry, limited geophysics and diamond drilling at Kulumadau between 1962 and 1963. Subsequent explorers include BHP, Highlands Gold, Auridium, Misima Mines and WML (BDI Mining and Kula Gold).

Exploration has principally focussed on delineating resources at Kulumadau, Busai and Woodlark King. Regional exploration in the form of stream sediment sampling, soil sampling and geological mapping has largely been confined to outcropping regions of volcanic lithologies and limited in effectiveness due to the widespread young sediment cover.

Two aeromagnetic surveys were completed over the central portion of the island by BHP in 1989 and Kula Gold in 2014. Other geophysical surveys and remote sensing data capture included several campaigns of ground induced polarisation (IP) surveys over Kulumadau and Busai and a light detection and ranging (LiDAR) topography survey over the ML508 and surrounding infrastructure routes.

Prior to GPR commencement of operations in late 2016, a total of 2,087 drill holes for 262,840 m of drilling had been completed by previous explorers. Only a small proportion of drilling was completed outside the Busai and Kulumadau areas.

GPR exploration efforts have focused on delineating Measured and Indicated Mineral Resources within conceptual pit outlines at the Busai and Kulumadau deposits. Two holes were also drilled at the Woodlark King deposit for validation and QA/QC purposes. As of November 2020, a total of 2,175 drill holes for 276,783 m of drilling has been completed on Woodlark Island (reverse circulation (RC) and diamond).

All defined Mineral Resources remain open at depth and along strike, reflecting the concentration of previous exploration efforts in areas of outcropping volcanics and the presence of post mineralisation cover masking strike extensions and possible orebody repetitions. An assessment of potential extensional resource targets, particularly at Kulumadau and Busai was undertaken, indicating strong opportunities to add to the Mineral Resource through drill testing the dip and strike continuity of defined gold mineralised trends. High priority drill targets have been identified and drilling of these targets will be incorporated into the execution strategy for the project development.

WML has completed the first comprehensive, island-wide geological mapping and soil geochemistry sampling programs, targeting outcropping basement volcanic lithologies prospective for gold mineralisation. This work significantly advanced the understanding of the Woodlark Island geology and has delineated numerous high priority gold targets for follow up assessment.

1.4 Mineral Resources

MPR Geological Consultants Pty Ltd (MPR) were retained by GPR to estimate recoverable gold resources for a series of gold deposits at the Project as part of the 2018 DFS. There is no change to the Mineral Resources from completion of the 2018 DFS.

The Kulumadau and Busai deposits host the majority of the Mineral Resource estimated, with Woodlark King and Munasi contributing a much lesser amount.

Estimation of resources for the Project relies on sampling by Kula Gold, who managed the exploration activities at the Project between the years 2004 to 2014 and by GPR, who acquired exploration management rights in October 2016.

GPR has maintained a quality control protocol that allows routine monitoring of sampling precision and assay accuracy. GPR have also undertaken programs of sampling and assaying to verify the historical sampling information. It was identified that the reliability of some early RC drilling results contained inaccuracies due to drilling and sampling methods employed at the time, resulting in all RC drill holes completed prior to 1996 being removed from the database. Thirteen twin holes and eleven replacement holes were drilled by GPR to verify or replace selected drill holes in the database to ensure accuracy of the dataset used in the resource estimations.

Recoverable resources at the Project have been estimated using the method of Multiple Indicator Kriging (MIK) with block support adjustment. Geological and oxidation domains were imposed to define domains of similar grade tenor and directional trends. The models estimate resources into panels with dimensions of 20 mE x 25 mN x 5 mRL. MIK of gold grades used indicator variography based on the resource sample grades, with continuity of gold grades characterised by indicator variograms at fourteen indicator thresholds.

A block support adjustment, incorporating an adjustment for information effect, was used to estimate the recoverable gold resources assuming a selective mining unit of 4 mE x 8 mN x 2.5 mRL and grade control sampling at 5 mE x 10 mN x 1.5 mRL. The shape of the local block gold grade distribution has been assumed lognormal within each panel as estimated by MIK.

In the MPR study, data viewing, compositing and wire-framing for the Project have been performed using Micromine software. Exploratory data analysis, variogram calculation and modelling, and resource estimation have been performed using FSSI Consultant (Australia) Pty Ltd GS3M software. GS3M is designed specifically for estimation of recoverable resources using MIK.

The recoverable resource estimates within each panel have been initially classified according to the distribution of sampling in the Kriging neighbourhood. This classification scheme takes into account the uncertainty in the estimates related to the proximity and spatial distribution of the informing sample composites. Table 1.4.1 presents the Mineral Resource estimates for the Project. Mineral Resources are shown at a gold cut-off of 0.4 g/t Au.

The estimates extend below topography and are constrained to an optimal open pit shell using a gold price of A$2,400/oz and costs that reflect a medium scale conventional open pit and milling operation. The model is regarded as sufficiently reliable to form the basis of an economic assessment of open pit mining.

Table 1.4.1 Woodlark Gold Project JORC 2012 Mineral Resources 0.4 g/t Au cut off (pit constrained)

Kulumadau

Resource Category	Tonnes (Mt)	Grade (g/t Au)	Metal (Koz)
Measured	8.88	1.30	372
Indicated	8.54	1.10	303
Inferred	2.9	1.2	108
Total	**20.32**	**1.20**	**784**

Busai

Resource Category	Tonnes (Mt)	Grade (g/t Au)	Metal (Koz)
Measured	12.36	0.96	382
Indicated	7.16	0.84	193
Inferred	1.4	1.1	48
Total	**20.93**	**0.93**	**623**

Woodlark King

Resource Category	Tonnes (Mt)	Grade (g/t Au)	Metal (Koz)
Indicated	3.24	0.96	100
Inferred	0.2	1.1	9
Total	**3.49**	**0.97**	**109**

Munasi

Resource Category	Tonnes (Mt)	Grade (g/t Au)	Metal (Koz)
Inferred	2.3	0.8	58
Total	**2.3**	**0.8**	**58**

Total

Resource Category	Tonnes (Mt)	Grade (g/t Au)	Metal (Koz)
Measured	21.24	1.10	754
Indicated	18.94	0.98	597
Sub-total	40.18	1.05	1,351
Inferred	6.8	1.0	222
Total	**47.00**	**1.04**	**1,573**

* Rounding may result in minor discrepancies.

1.5 Mining

For the 2018 DFS, Mining Plus was engaged to update the mining components of the Project including optimisation, design and scheduling and preparation of a detailed operating and capital cost estimate to enable the generation of an Ore Reserve. The mining strategy has been revised from the Owner miner strategy in the 2018 DFS to contract mining during the pre-strip and first three years of production, transitioning to Owner mining to the end of the mine life. All drilling (production, grade control and exploration) is planned to be undertaken by a specialist drilling contractor through a schedule of rates contract. The Owner will undertake blasting for the full life of mine, and as such, the costs have been estimated from first principles taking into account the lithology and weathering conditions.

The update confirms that the three mining areas can be developed in a practical sequence to mine 1.1 M oz of gold and provide sufficient feed to the processing plant for 13 years.

Table 1.5.1 summarises the main mining indicators for the study.

Table 1.5.1 Mining Summary

Description	Unit	Life of Mine
Waste Mined	kt	156,694
Ore Mined	kt	30,848
Grade	g/t Au	1.11
Contained Gold	koz Au	1,099
Strip Ratio	Waste:Ore	4.1:1
Average Mining Cost (operating only)	A$/t mined	2.94
Average Mining Cost (including capital)	A$/t mined	3.11

1.5.1 Pit Designs and Ore Reserve

The Ore Reserve was generated from the Mineral Resource Estimate produced by MPR with the appropriate modifying factors applied for dilution. This Mineral Resource model was used in an open pit optimisation process to produce a range of pit shells using operating costs and other inputs derived from all previous studies and then verified. There has been no change to pit designs and Ore Reserve since the completion of the 2018 DFS.

Geotechnical drilling and analysis was completed by Peter O'Bryan and Associates to DFS level. The resultant recommended design parameters were used to approximate the overall pit slope angles for the pit optimisation runs, and the final wall angles for the designs.

The optimisation resulted in four discrete pits, two at Woodlark King and one each at Busai and Kulumadau. Individual designs were completed for each discrete area of Busai and Kulumadau, plus a number of starter pits were designed to reduce the pre-strip durations and provide early access to ore.

Ore Reserves are the Measured and Indicated Mineral Resources mined and processed within the mine schedule that produce a positive economic outcome for the Project. These Ore Reserves, at a 0.4 g/t cut-off grade are summarised in Table 1.5.2.

Table 1.5.2 Ore Reserve

Deposit	Classification	Mt	Au (g/t)	Au (oz)
Busai	Proved	9.3	1.03	307,300
	Probable	4.3	0.87	120,900
Kulumadau	Proved	7.4	1.37	324,700
	Probable	5.3	1.17	196,900
Woodlark King	Proved	1.9	1.06	65,000
	Probable	0.8	0.84	22,800
Total	Proved	18.6	1.17	697,000
	Probable	10.4	1.02	340,600
Total		**28.9**	**1.12**	**1,037,600**

1.5.2 Mine Schedule

The mine schedule was developed to maximise the Project NPV and provide a rapid Project payback period. The feed rate target is 2.4 Mtpa to the crusher.

The pre-strip operation is ten months in duration commencing at 170,000 t in the first month before ramping up to 650,000 t per month within six months. This ramp up allows for training of operators and for the completion of necessary pioneering work required to develop the first pit.

The mine plan utilises an elevated cut-off grade of 0.9 g/t Au in the first three years to ensure gold production levels in excess of 100,000 oz per annum to maximise Project NPV and reduce the Project payback period. The lower grade ores are stockpiled and blended into plant feed on an as-required basis.

The annual materials mined, crushing tonnages and gold production are summarised in Figure 1.5.1 and 1.5.2 and Table 1.5.3.

Figure 1.5.1 Annual Mining Tonnages (by Material)

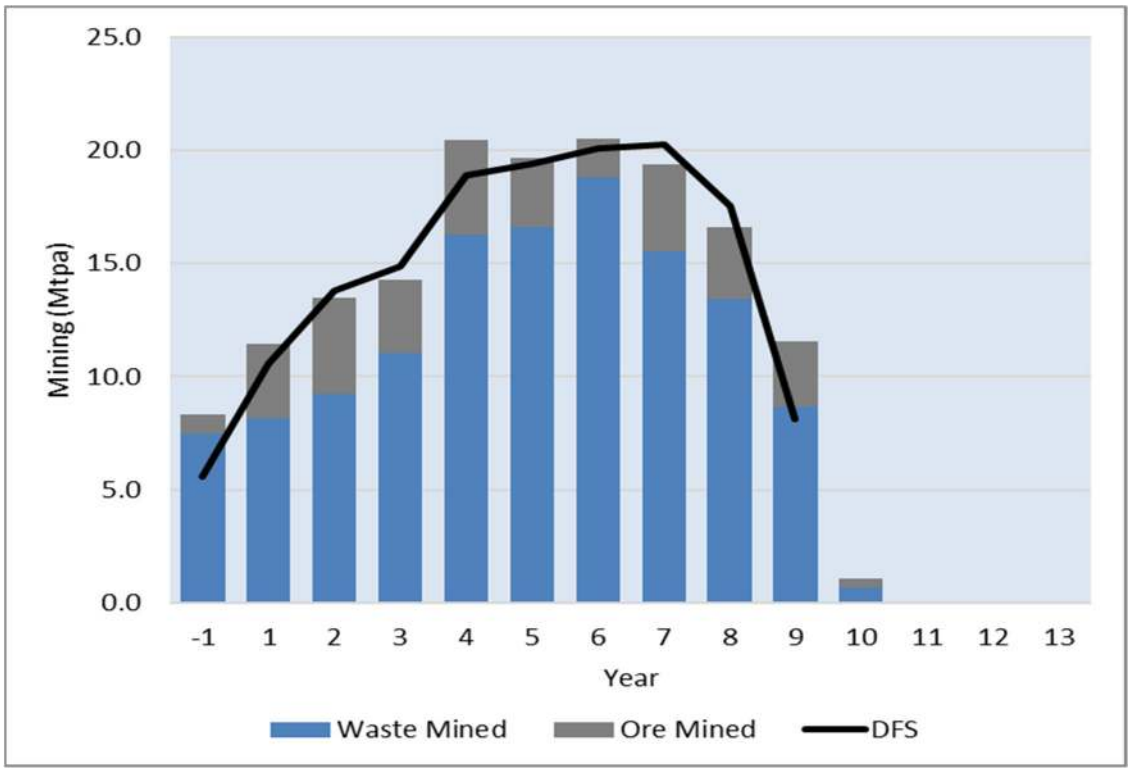


Figure 1.5.2 Annual Gold Production

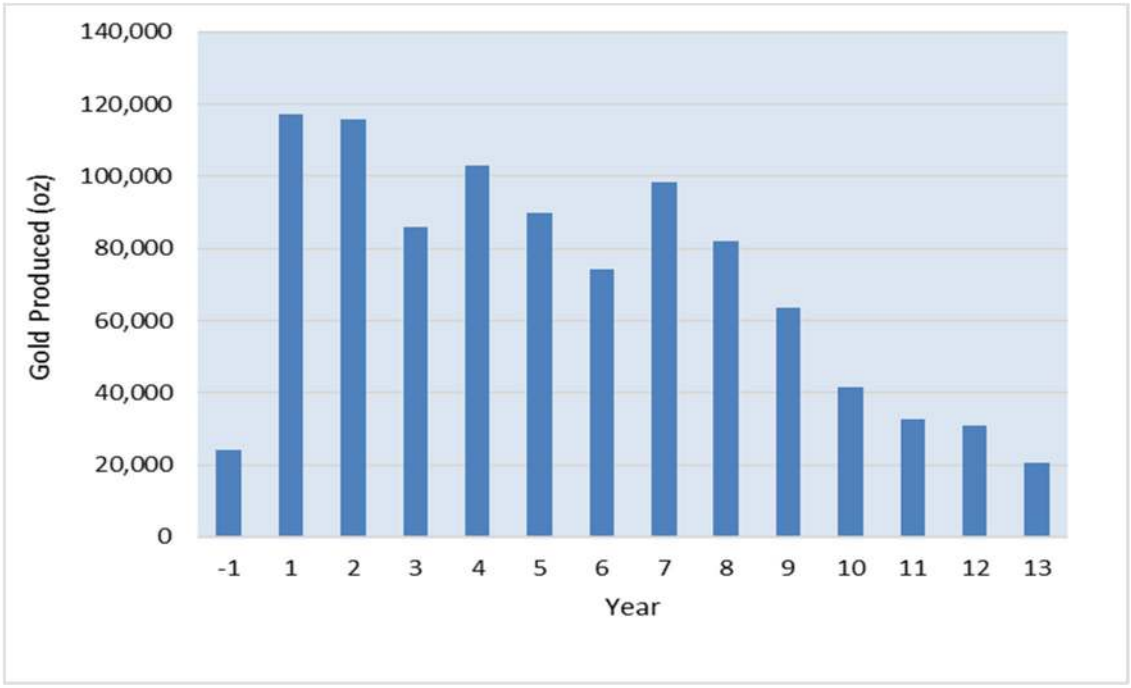


Table 1.5.3 Mine Schedule Summary

Description	Unit	TOTAL	Yr -1	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13
Ore Mining	Mt	**30.8**	0.83	3.25	4.23	3.22	4.20	3.07	1.68	3.86	3.22	2.91	0.38	-	-	-
	g/t Au	**1.1**	1.50	1.35	1.22	1.03	1.09	1.06	1.12	1.08	0.99	0.89	0.97	-	-	-
Waste Mining	Mt	**125.8**	7.49	8.18	9.23	11.06	16.24	16.59	18.81	15.53	13.40	8.63	0.69	-	-	-
Total Mining	Mt	**156.7**	8.32	11.43	13.46	14.28	20.44	19.65	20.50	19.39	16.62	11.55	1.07	-	-	-
Waste:Ore Ratio		**4.1**	9.0	2.5	2.2	3.4	3.9	5.4	11.2	4.0	4.2	3.0	1.8	-	-	-
Ore Milled	Mt	**30.8**	0.45	2.34	2.41	2.40	2.40	2.40	2.41	2.40	2.40	2.40	2.41	2.40	2.40	1.63
	g/t Au	**1.1**	1.80	1.69	1.68	1.28	1.48	1.27	1.06	1.40	1.20	0.99	0.62	0.51	0.45	0.45
RoM Stockpiles	Mt		0.37	1.29	3.11	3.93	5.73	6.39	5.67	7.13	7.95	8.46	6.43	4.03	1.63	-
Gold Produced	**k oz**	**980.1**	**24.3**	**117.3**	**115.8**	**86.0**	**103.0**	**89.8**	**74.2**	**98.4**	**82.1**	**63.7**	**41.6**	**32.7**	**30.8**	**20.5**

1.5.3 Mining Costs

The updated mine plan has been developed on the basis of the refined operating philosophy. Mining will commence utilising an experienced local PNG contractor before transitioning to Owner mining at the conclusion of the third year of production. The benefits of this approach are to de-risk the early years delivering certainty around initial mining costs, while still allowing GPR the opportunity to reduce costs by transitioning to Owner operator when mining volumes increase in the fourth year. Furthermore, the contractor providing an experienced workforce at the outset of operations allows GPR a number of years to develop local capacity on the island in advance of Owner mining.

This change in strategy from the 2018 DFS has been built into the updated cost model with the pre-strip and three years of production being estimated under a standard schedule of rates and the remainder of the mine life using a first principles estimate utilising expected productivities, efficiencies and manufacturer operating cost estimates.

The Owner mining costs have been estimated from first principles and include the purchase, operation and maintenance of the mining equipment, the necessary operational, maintenance and support personnel and the necessary mining services costs. The equipment operating costs have been built up utilising the expected productivities and efficiencies along with the estimation of haulage distances and subsequent haulage times. All drilling is planned to be undertaken by a specialist drilling contractor through a schedule of rates contract.

The Owner will undertake blasting (procurement, logistics and loading of explosives) for the full life of mine, and as such, the costs have been estimated from first principles taking into account the lithology and weathering conditions.

The mining cost estimate, including pre-strip costs, is summarised in Table 1.5.4.

Table 1.5.4 Mining Operating Cost Estimate

Mining Costs	Total Mining Cost (A$)	Mining Cost per Tonne (A$)
Mining Contractor	88,469,913	0.56
Drilling Contractor	49,625,192	0.32
Salaries and On-Costs	73,324,712	0.47
Equipment Ownership	17,830,536	0.11
Diesel	57,101,911	0.36
Equipment Maintenance	61,637,872	0.39
Ground Engaging Tools	3,763,625	0.02
Tyres	7,428,458	0.05
Blasting	87,494,188	0.56
Owner Camp Costs	6,166,872	0.04
Grade Control Assay	5,414,719	0.03
Technical Services	1,991,795	0.01
Total	**460,249,794**	**2.94**

1.6 Metallurgical

Two sets of metallurgical and comminution testwork have been undertaken for the Project. The first set was historical testwork and the second set comprises the recent detailed metallurgical and comminution testwork programme to support the 2018 DFS. There has been no further metallurgical work completed since completion of the 2018 DFS.

The historical testwork consisted of four programmes conducted in 1992-93 (Amdel), 1996 (IML, AMMTEC and JKTech), 2010-2012 (Metcon) and early 2017 (IMO). Review of the historical testwork identified several areas that required further testing. The 2018 DFS metallurgical testwork programme was carried out from October 2017 to June 2018 by ALS Perth under the direction of Lycopodium.

Samples for the testwork programme were selected to represent the range of ore types from the two main Woodlark deposits – Kulumadau and Busai.

The selected metallurgical treatment route is based on the results of the 2018 DFS testwork programme and the relevant results from the historical programs.

The following conclusions were drawn from the metallurgical and comminution testwork:

- The Project ores have a wide range of comminution parameters, but typically have moderate to high natural fracturing, low to medium competency, low resistance to impact breakage, moderate grinding energy requirements and low abrasion. A semi autogenous grinding (SAG) and ball mill comminution circuit was selected to accommodate the wide spectrum of rock competencies.
- Gold leach extraction is relatively independent of grind size up to a maximum P80 of 106 µm. A grind size of P80 106 µm was selected as optimum.
- The gravity gold component of the Kulumadau and Busai ores is high (>60%) and lower for the Woodlark King ore (15%). A gravity stage was included in the 2018 DFS testwork and a gravity circuit has been included in the process plant flowsheet.
- Leach kinetics are fast with all recoverable gold typically extracted from the gravity tails within eight hours with air sparging. If the gravity circuit is offline, all recoverable gold is extracted within 24 hours. A carbon in leach (CIL) circuit residence time of 24 hours has been included in the process plant flowsheet.
- Gold extraction for the Kulumadau and Woodlark King ore was typically high with gold extraction increasing as the ore gold head grade increased.
- Gold extraction varied for the Busai ores with gold extraction typically decreasing as the ore arsenic head grade increased.

- Silver extraction was moderate for all ore types and capacity has been allowed in the plant flowsheet for silver recovery.

- Some cyanide soluble copper is present in the Project ores. A cold cyanide wash to assist in removing adsorbed copper from the loaded carbon has been included in the process plant flowsheet.

- Leach cyanide consumptions are low, and the required lime addition is low to moderate when using fresh water. Lime consumptions are significantly higher if sea water is used.

Variability metallurgical testwork results suggest that:

- For the Kulumadau and Woodlark King ore, the gold head grade and gold residue grades are moderately correlated and that a linear model to predict tailings grade based on head grade can be used to estimate gold recoveries over a range of head grades.

- For the Busai ore, the arsenic head grade and gold extraction are moderately correlated and that a linear model to predict tailings gold grade based on the arsenic head grade can be used to estimate gold recoveries over a range of arsenic head grades.

Average recoveries from the three mining areas are 92.0% from Kulumadau, 85.5% from Busai and 91.2% from Woodlark King.

1.7 Process Plant

The updated process design for the Project is based upon a well-defined metallurgical flowsheet, designed for optimum recovery with minimum operating cost. The flowsheet is based upon unit operations that are well proven in industry.

The key criteria for equipment selection are suitability for duty, reliability and ease of maintenance. The process plant layout provides ease of access to all equipment for operating and maintenance purposes whilst maintaining a compact footprint that minimises construction cost and ground improvement works.

FEED commenced in March 2020 with GRES and is planned to continue as part of the EPC contract. GRES are well advanced and have achieved 17% engineering progress to date. A 3-D model of the process plant is well advanced and has been through numerous design reviews with the Owner's Team.

Extensive work has been done to advance the ground improvement works for the process plant, with a geotechnical drilling and assessment completed by Knight Piésold in February 2020. GRES and Knight Piésold have collaborated to design the ground improvement solution for the Project including micropiling for the mills and box cuts for other critical areas. GRES have optimised the plant foot print to minimise the ground improvement works.

Equipment selection and layouts have been agreed. The process design criteria (PDC), equipment list, process flow diagrams (PFDs) and piping and instrumentation diagrams (P&IDs) are advanced to the point where they can be included in the EPC contract. The tendering and evaluation of long lead time equipment in particular the SAG and ball mills have been completed and are ready for award prior to, or immediately post final investment decision (FID).

The GRES design includes a grinding circuit upgrade from the 2018 DFS with increased capacities from 3.8 MW to 4.4 MW for the SAG and ball mill. This provides certainty that the 2.4 Mtpa rate will be achieved have latent capacity with potential opportunity to increase the throughput from the nameplate (2.4 Mtpa) up to 2.8 Mtpa with the addition of the 7th CIL tank and other operational de-bottle necking. This is expected to come at relatively low capital cost.

The inclusion of the surge bin and emergency stockpile in the revised GRES process flow sheet provides the opportunity for the operations team to maintain a reliable mill feed in the event of crusher downtime.

Other key design changes are highlighted below:

- Gravity circuit enhanced with second gravity concentrator allowing for improved operations and maintenance, including redundancy.
- Elution circuit design enhanced from Zadra to Anglo American Research Laboratories (AARL) improving gold stripping efficiencies, reducing elution stripping times and providing further redundancy including capacity for additional strips per day.
- Inclusion of automated sampling on CIL feed and tailings discharge streams, removing human sampling influences and improving overall metallurgical accounting.

During the detailed engineering design phase, significant work has been undertaken to review the operability of the process plant design, using both internal resources and external experts. This work included a site visit to a similar sized Western Australian gold operation to observe the process plant in operation which was constructed by GRES utilising a design that is very similar to the proposed Project process plant.

The key Project and ore specific criteria that the plant design is required to meet are as follows:

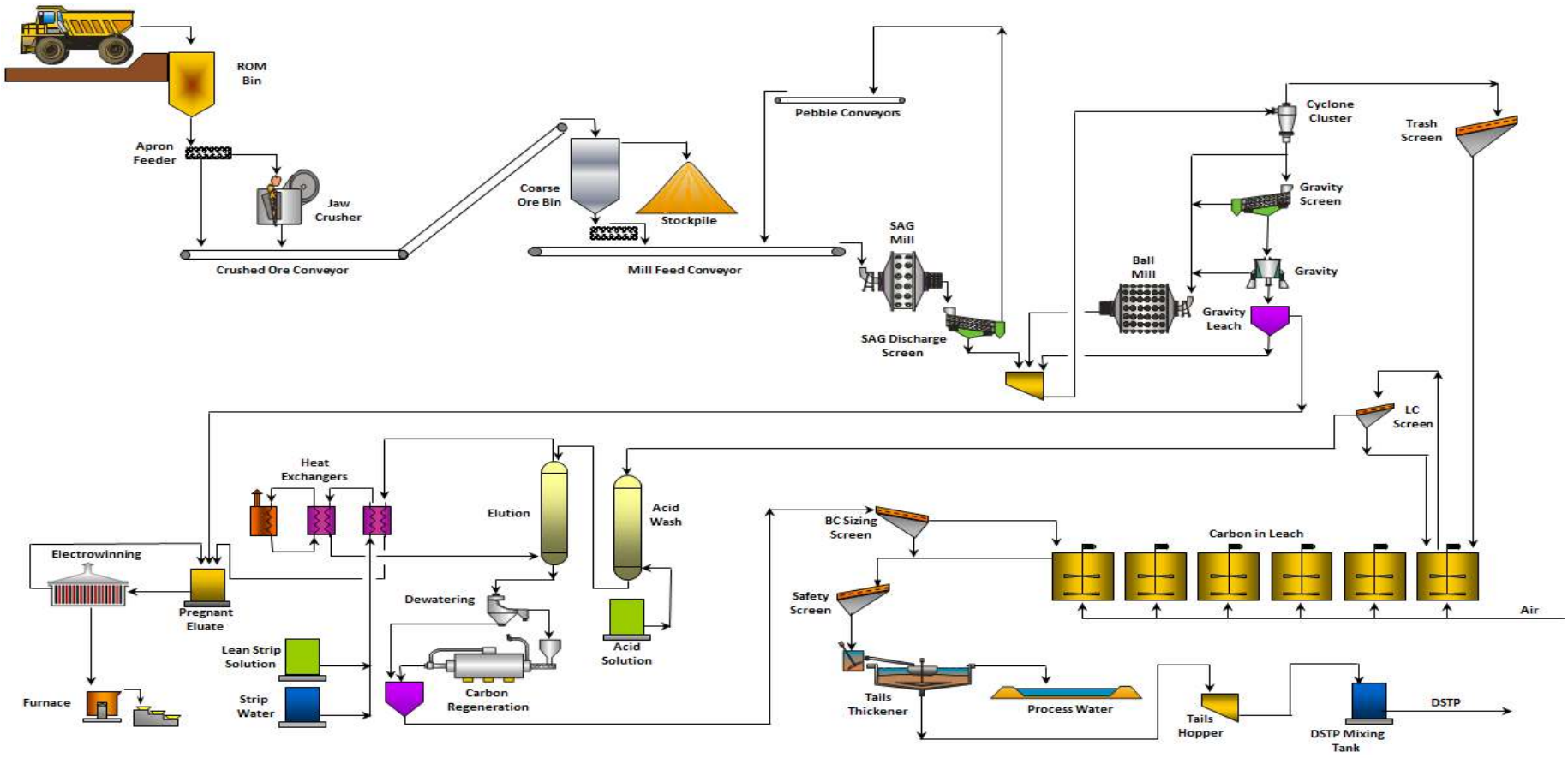
- 2.4 Mtpa of ore processed.
- Mechanical availability of 80% or greater for the crushing circuit and 91% or greater for the grinding and downstream circuits.
- Sufficient automated plant control to minimise the need for continuous operator interface and allow for manual override and control as and when required.

The treatment plant design incorporates the following main unit operations:

- Direct feed, open circuit primary jaw crushing, to produce a coarse crushed product 80% (P80) passing 130 mm.
- Intermediate crushed ore storage bin with emergency overflow stockpile, providing a buffer between the crushing and grinding circuit.
- A SAG/Ball (SAB) milling circuit comprised of a SAG mill and ball mill in closed circuit with hydrocyclones to produce a product size of 80% (P80) passing 106µm.
- Gravity concentration via two centrifugal gravity concentrators, treating a portion of the cyclone underflow within the milling circuit circulating load, with the resulting gravity concentrate treated by intensive cyanidation and electrowinning to recover gold to doré.
- A CIL circuit to leach and adsorb gold and silver onto activated carbon; the circuit comprises six CIL tanks, with space allowance for a seventh, and provides a residence time of 24 hours.
- A cold acid wash followed by a split Anglo AARL elution circuit, electrowinning and gold smelting to recover gold from the loaded carbon to doré.
- Thickening and washing of the CIL tailings slurry for water, soluble gold and residual cyanide recovery whilst increasing the tailings slurry density prior to pumping to the DSTP mixing/de-aeration tank.
- Tailings pumping via an overland pipeline to a DSTP facility.

A schematic summary of the treatment plant process flowsheet is presented in Figure 1.7.1.

Figure 1.7.1 Process Schematic Diagram



1.7.2 Key Equipment Selection

The civil, mechanical and electrical design of the plant facilities is based on industry standard practice and GRES's extensive experience in process plant design and project implementation.

The mechanical design of all process tanks takes into consideration the seismicity applicable to the plant location, with appropriate materials selection and corrosion allowances. Industry best practice and relevant international standards underpin the design.

The control systems will provide high reliability, ease of maintenance and will be in accordance with the current mining industry practice. Latest equipment technologies will be used to achieve improved operational performance as well as lower capital costs where possible. Equipment selection will consider availability of technical support as well as quality, robustness and commonality.

1.7.3 Plant Location and Site Layout

The process plant will be located in between the Kulumadau and Busai pits to minimise haul costs and is outside the proposed target exploration areas.

The location of the various process plant facilities is reflective of the local topography whilst consideration has been given to site specific constraints, such as the location of the run of mine (ROM) pad, low grade ore stockpile and waste rock dumps and the access roads.

The plant layout provides ease of access to all equipment for operating and maintenance requirements while maintaining a compact footprint to minimise construction costs.

The plant layout has allowed for possible future installation of pebble crushing and an additional CIL tank.

A plant site geotechnical work program was completed in January 2020 which identified that the conditions on the selected process plant site necessitate the implementation of ground improvement. Subsequently, a ground improvement study was conducted by Knight Piésold which analysed a number of options for the ground improvement work.

The selected ground improvement method involves the excavation of material to a depth of 5 m and replacement with layers of geofabric membrane between layers of engineered fill up to the underside of foundations. Ground improvement is required under the primary crusher, surge bin and future pebble crusher structures and underneath the CIL tanks. The ground underneath the mills requires micro piles spaced at approximately 3 m centres and directly underneath the columns in the cyclone support structure. This program will be undertaken by GRES under the direct supervision of Knight Piésold and the associated costs have been included in the updated capital cost estimate.

Foundations for dynamically loaded structures will utilise a raft design using reinforced concrete. The raft foundations will be buried to increase their effective mass and reduce the volume of concrete required. A process plant slab will overlay the encompassed earth and the raft foundation and will be used to direct process plant spillages as required to sumps. Detailed earthworks around each process plant area will direct any rainfall away from the foundations and into the plant drainage system.

Other foundations will be designed as raft foundations, strip footings, discrete footings, etc. as required to meet seismicity, bearing pressure and stability criteria. The foundations will be buried to increase their effective mass and will be overlain by process slabs as required. Detailed earthworks around each process area will direct any rainfall away from the foundations and into the process plant drainage system.

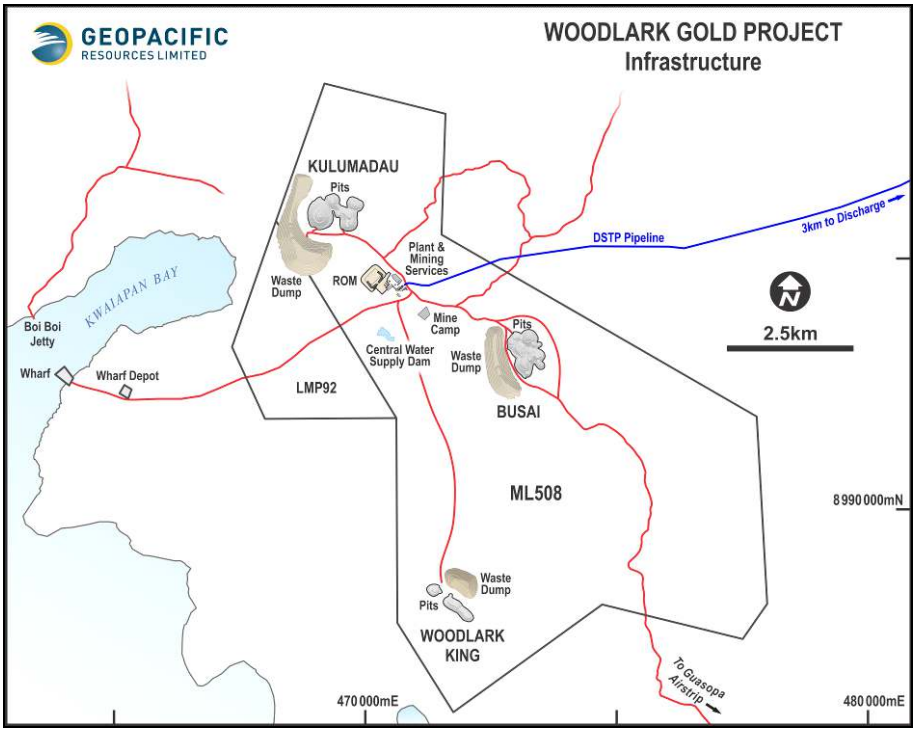
1.8 Infrastructure

The overall site development plan is shown in Figure 1.8.1. The major infrastructure requirements of the Project include a process plant, DSTP system, accommodation camp, roads, airstrip, mine services area, mine open pit, water supply dam and mine waste dumps.

The process plant and mine services buildings are to be located approximately half way between the Kulumadau and Busai mining areas. The permanent camp will be located approximately 400 m south-east of the process plant.

A new wharf is to be constructed with an onshore wharf depot approximately 7 km to the west of the process plant site accessed by a newly constructed road across relatively flat terrain. The DSTP discharge point and mixing tank is located approximately 12 km to the east of the plant site.

Figure 1.8.1 Overall Site Plan



1.8.2 Temporary Construction Camp

The existing exploration camp adjacent to the Busai pit area will be used to accommodate construction personnel as required during the construction period. It will be used for early works until the permanent camp is completed, then will supplement the permanent camp during peak construction manning periods. The refurbished exploration camp facilities will accommodate 16 senior personnel and 126 other workers.

A temporary modular kitchen will be installed to supplement the existing dry mess facilities to cater for full camp capacity and to provide meals for local staff working on the Project.

1.8.3 Permanent Mine Camp

The permanent camp will be constructed adjacent to the process plant, approximately 400 m to the east. The permanent camp will accommodate up to 300 staff and deliver in total 1,800 meals per day and be suitable for a 15 year mine life.

An experienced site services supervisor will be employed to run the camp on Owner operator basis. This will benefit local employment and provide opportunities for local business.

1.8.4 Roads

A number of new roads will be constructed including between the process plant and wharf depot, a causeway between the wharf and the wharf depot, an access/service road along the DSTP pipeline and various other site roads. Roads will be constructed depending on usage requirements.

Mincore have completed the detailed design of the roads. The wharf road has been cleared, grubbed and graded as part of the early works program. The road subgrade as formed will be proof rolled to the requirements of the specification. The sub-base and road base will be 200 mm layers of compacted engineered fill (coronus material). Costs have been included in the capital estimate. Mincore have also completed the design of the access track for the DSTP onshore pipeline alignment. The Mining Easement application for the DSTP pipeline route and access track has been submitted and a Warden's hearing is scheduled in January 2021.

1.8.5 Wharf and Wharf Depot

The majority of the freight for the Project will be landed or despatched from a wharf to be constructed at Kwaiapan Bay. The marine structures will consist of a wharf platform 50 m x 40 m with a water depth of 7 m. The wharf will be constructed with a 40 m sheet pile front wall and two 15 m long return walls and an anchor wall that is connected to the front wall. The wharf area and unloading ramp will be connected to the shore with an offshore causeway 160 m long which leads into a 1,000 m long onshore causeway. Geotechnical drilling is planned for December 2020 to progress the detailed wharf design.

The wharf facility will consist of an unloading ramp for landing craft, a berthing facility and a heavy loading/unloading facility.

The wharf is scheduled for completion in Q4 2021 and in time for the delivery of the mills and other major equipment.

Prior to completing the construction of the new wharf at Kwaiapan Bay, the existing wharf at Boi Boi will be utilised during early construction works and has previously been used for the mobilisation of heavy equipment and all other consumable supplies.

The wharf depot facility will be located approximately 1,000 m from the shoreline to provide an area for freight laydown and fuel storage.

1.8.6 Power

The power load and consumptions have been updated to include the GRES process plant design and any changes to the infrastructure. The installed load and consumed power for the site is shown in the table below.

Table 1.8.1 Power Plant Demand

Area	Installed (kW)	Consumed (kW)	Annual Usage (MWh)
Process Plant	12,620	9,030	66,600
Infrastructure	880	620	5,400
Total	**13,500**	**9,650**	**72,000**

The contract for power supply will be on a "Build Own Operate" (BOO) basis. Power will be provided from a site power station located to the south of the process plant and will be owned and operated by the independent power provider (IPP). A tender process has been run for the provision of power to the Project which resulted in CPA being selected as the preferred party. The power cost included in the operating costs is based on a schedule of rates included in the tender pricing which includes a combination of fixed and variable charges. A contract term sheet and Power Purchase Agreement (PPA) is well advanced.

1.8.7 Mine Services Area

The mine services areas will be located adjacent to the process plant and will include various office and training rooms, workshops, park up areas, washdown and refuelling bays and other facilities. The majority of the mine services buildings will be provided by the mining contractor.

1.8.8 Airstrip

A portion of the construction and operations personnel will be expatriates or PNG Nationals working on a fly-in/fly-out (FIFO) basis. The existing airstrip at Guasopa is in good working order and will receive upgrades and require ongoing maintenance to accommodate larger commercial aircraft. During the early works phase a DASH 8 and King Air aircraft have been utilised for mobilisation of personnel. A tender process will be run to engage a long term air services provider.

1.8.9 Explosives Storage and Handling

An emulsion storage site will be established. An explosives magazine will be built and located separately. This will store explosives and detonators and will include a blast berm and will be fully fenced.

1.8.10 Community Relocation

WML has entered into an agreement, endorsed by the PNG MRA, to build new houses and relocate all residents living within ML508 to locations outside of the Project area. In November 2019 the decision was made to prepare an updated Relocation Agreement to ensure that all new eligible beneficiaries of a relocation package were formalised. The updated Relocation Agreement was finalised in December 2019 and incorporated the following changes:

- Compensation rates increased in line with CPI increases.
- Inclusion of new house designs.
- Inclusion of new community building designs (school, church buildings etc.).
- Inclusion of updated head of household list, capturing all houses constructed prior to 2nd December 2019.
- Inclusion of a solar lighting kit for each house.

In December 2019 Rhodes were engaged to construct the communities relocation housing and works commenced in January 2020. During the intervening period, community concerns were raised about the adequacy of the proposed housing. Extensive stakeholder consultation was undertaken to address these concerns and provide upgraded housing and community buildings. As a result, an amendment to the 2019 Relocation Agreement was executed in November 2020 following further improvements to the designs of the houses.

The recommenced relocation program includes the construction of:

- 220 houses, ranging from three bedroom to five bedroom.
- Two church buildings.
- 12 trade stores.
- One first aid building with staff accommodation.
- A school comprising five classroom buildings (each building includes two classrooms and a central office/storage room), two dormitories with a 40 person capacity (male and female) with ablutions and eight teacher's houses.

1.9 Tailings Disposal

Tailings will be disposed of via a DSTP system, designed based on a range of comprehensive environmental studies and impact assessment. DSTP provides an effective solution for tailings management and is the preferred option in high rainfall environments and in situations where there is a degree of seismic activity.

The DSTP system, which has been assessed and approved by the CEPA in PNG, is located on the north-eastern side of Woodlark Island, with tailings to be directed to an offshore basin over 3,500 m deep. The option of an onshore tailings management facility was assessed, but was deemed to be unfeasible due to the high rainfall environment and the risk of contaminant release to fresh water streams on the island, and the requirement for indefinite management post closure.

The DSTP design was completed by EBA Tetratech of Vancouver Canada, who have significant experience in designing DSTP systems in PNG and around the world.

Construction of the DSTP has been incorporated in the scope of works to be contracted to GRES. Detailed design work has been advanced in relation to the onshore pipeline portion of the system including:

- Route optimisation, based on terrain (including minimising creek crossings), constructability, landowner considerations (i.e. avoidance of plantations etc.) and minimisation of pipe length.
- Pumping requirements.
- Pipe sizing and pressure rating to allow for static lift and pipe friction losses.

GRES have also been advancing the costing, execution planning and design work of the DSTP mixing tank and offshore pipelines with specialised engineering firm Brass Engineering (Brass). There has been no change in relation to the overall design, however further studies have been defined for the completion of onshore geotechnical surveys at two potential mixing tank locations, and a near shore bathymetry survey to refine the offshore pipeline route.

1.10 Water Management

1.10.1 Pit Dewatering

Removal of both groundwater and surface water from the pits will be via sump pumping methods. Suitable sized sumps will be constructed within the pits to contain runoff before it is removed. Water will be pumped to a number of locations.

Horizontal bore holes will likely be required in the pit walls as the pits are developed below the natural groundwater level to reduce pit wall pressure and the risk of wall failure. Measurement of existing and new groundwater wells and vibrating wire piezometers will be incorporated into the groundwater monitoring program, with data assessed to monitor changes in pit wall pressures against the geotechnical risk.

Any excess water generation will pass though sediment control infrastructure (i.e. sediment trap, settling pond) prior to being discharged to the environment. The type of sediment control structure will be dependent on the level of sediment contained in the discharge and the overall flow rate.

1.10.2 Surface Water Management

Runoff from the waste dumps will flow into perimeter drains and be directed to sediment control structures before being discharged to the natural drainages.

Road drainage will be directed to channels running along the downstream edges. Water will be directed towards natural drainages with installed culverts draining any flow under the roadways.

Drainage from the process plant will be directed to a runoff capture pond immediately to the west of the plant, captured water will be returned to the process water pond.

The permanent mine camp will be located approximately 400 m to the east of the process plant. Runoff from within the permanent camp areas will be directed through small drains before being discharged towards natural drainage lines.

1.10.3 Water Supply

A total site water use summary, with updated plant water requirements is provided in Table 1.10.1.

Table 1.10.1 Site Water Use Summary

	m³/day	m³/h	L/s
Water in Mill Feed	816	34.0	
Water in Plant Tailings	6,336	264.0	
Difference (water required into slurry)	5,520	230.0	
Raw water (reagents, gland) into plant (fresh water requirement)	1,632	68.0	19.0
Difference (raw water makeup) can be fresh or seawater	3,888	162.0	45.0
Plant Potable	10	0.4	0.1
Mine services and mine dust suppression (fresh water only)	480	20.0	6.0
Other Potable (camp, workplace requirements)	93	4.0	1.0
Total other (fresh or seawater) water requirement	**3,888**	**162.0**	**45.0**
Total fresh water requirement	**2,218**	**92.4**	**26.1**

In addition to the water supply dams located on Uwenu Creek and adjacent to the Kulumadau pit and the back-up seawater line as described in the 2018 DFS, there will be additional storage at the process plant including:

- A 15,000 m^3 raw water pond, and
- A 10,000 m^3 process water pond.

A water treatment plant comprising filtration and chlorination located at the camp will supply potable water for the camp, plant, site offices and workshops etc..

1.11 Environment and Social Impact

Environmental approval (Permit No. WD-L3(388)) for the Project was granted in February 2014 by the DEC (now CEPA), with the Environment Permit coming into force on 15 March 2014 with a validity of 20 years (expires March 2034).

An application for several amendments to Environment Permit WD-L3 (388) was submitted to the CEPA in May 2018 to ensure that the conditions of the Environment Permit better reflect the revised Project execution strategy. These amendments were approved and the revised Environment Permit was issued on the 7th May 2020. An addendum to the Environmental Impact Statement (EIS) addressing changes in the Project description since the original EIS was completed, was prepared in December 2018 to support the Permit Amendment Application.

Where necessary, impacts were reassessed. In general, there is minimal change to the impact duration and severity presented in the EIS, with improvements in some aspects (e.g. a reduction in land clearing requirements). In many cases the approved EIS presents a conservative assessment compared to the present Project. The proposed increase in tailings volumes was fully modelled as was done for the original EIS with only a minor increase in the overall deposition footprint identified. The proposed Project modifications do not alter the conceptual closure plan presented in the EIS.

An independent technical review of environmental and social aspects of the Project was completed by international consulting firm ERM between August 2018 and April 2020. This included an assessment of the Project against the Equator Principles and the International Finance Corporation (IFC) Performance Standards.

The ERM review covered all Project aspects with a key focus on tailings management, land acquisition and resettlement, indigenous peoples, ongoing stakeholder engagement, development of a biodiversity action plan, noise modelling and management plans for the construction phase of the Project. A number of pieces of work have since been completed to address identified gaps, including:

- Further in relation to the Resettlement Action Plan (RAP):
    - Completion of a detailed household level socio-economic survey.
    - Re-engaged a Relocation Committee comprising representatives from the affected community to act as an important communication channel.
    - Improvement in the monitoring and measurement strategies to be implemented to assess the impact of the relocation on the community.
    - A site manager with a community engagement background has been appointed to ensure continual engagement.
- Development and implementation of a Community Health and Safety Plan to ensure that the communities surrounding the Project are educated on the various health and safety risks associated with a mining project.
- Completion of a Land Use Study and Ecosystem Services Assessment. GPR engaged the services of specialised consultants Coffey Environments to complete this work in December 2019 and January 2020 with the results of the study since accepted by ERM.

- A Biodiversity Management Plan, including a Biodiversity Offset Strategy will be a requirement of the Project. ERM determined that this work will need to be completed during the construction period. A scope of work has been obtained from Coffey Environments to complete this work during 2021.

Further review of more recent community engagement work in relation to the community relocation program is currently being completed.

1.11.1 Environmental and Social Management System

An Environmental and Social Management System (ESMS) has been developed and is being implemented to ensure rigour around policies, procedures, data management and storage, regulatory requirements and training and inductions. The ESMS has been developed in such a way to enable it to evolve during the various Project stages and to ensure a process of continuous improvement.

The ESMS incorporates an Environmental Monitoring and Management Plan (EMMP) in line with international best practice and the requirements of the Environment Permit, the PNG Environment Act 2000.

1.11.2 Mine Closure

GPR is committed to managing all phases of the Project in accordance with best practice environmental management such that the medium and long term social and environmental impacts are minimised. A conceptual closure plan (incorporating decommissioning) has been prepared and costed.

Where appropriate, progressive rehabilitation will be undertaken during the life of the Project and will close/decommission the project with the objectives of removing public safety hazards, and providing a post mining land use compatible with the prevailing beneficial land-uses of the area.

The rehabilitation plan will encompass potential end-land use, rehabilitation principles, land rehabilitation methods and post monitoring and management techniques. The closure/decommissioning plan includes the environmental objectives and a provisional plan for rehabilitation and site closure.

1.12 Advanced Project Implementation Plan

The 2018 DFS was based on engaging a suitable Engineering, Procurement and Construction Management (EPCM) contractor for design and construction management of the process plant and infrastructure, which would then be handed over to the Owner's operating team.

The Project implementation strategy was reviewed by the Owner's team during 2019 taking into consideration the Project schedule, allocation of risks and which parties was best placed to manage and mitigate the construction and operational risks. Subsequently, an EPC contract model was identified as the preferred approach for the design, supply and construction of the process plant and associated facilities. The design, supply and construction of the infrastructure facilities will be managed by the Owner's team.

GRES was selected as the preferred supplier of these services after a tender process in 2019. FEED commenced in March 2020 as an ongoing part of the EPC contract. The EPC contract for the process plant and associated infrastructure is planned to be executed with GRES to coincide with the GPR Board approving the final investment decision.

GRES are well advanced on the detailed engineering and the target is to achieve 25% engineering completion by end March 2021. The construction of the process plant will be executed as a Guaranteed Maximum Price (GMP) EPC Contract.

The 2018 DFS based the construction of the mine starter pit at Kulumadau, haul roads, mining facilities and mine operations to be self-performed by the GPR Owner's team. To mitigate the risk of building a mining team, the revised 2020 execution strategy involves the engagement of a contract miner to carry out load and haul activities during the pre-strip period and for the first three years of operation. Mining activities are planned to transition to a self-perform structure managed by the GPR Owner's mining team from year four onwards. HBS were selected as the preferred contract mining provider during the first three years of operations.

Provisional key Project milestone dates (subject to COVID-19 restrictions) are provided in Table 1.12.1. The overall Project duration is estimated to be 18 months from FID approval excluding the time spent since March 2020 on early works and FEED. The primary Project critical path is through the SAG and ball mill delivery, installation and commissioning followed by the secondary critical path through the supply, fabrication and installation of the CIL tanks.

Table 1.12.1 Key Project Activities

Activity	*Target	Duration (Weeks)	Months From FID
Commence FEED and Early Works on Site	Mar-20	-56	-13
Complete Process Plant Clearing & Site Preparation	Apr-21	0	0
Award Mining Contract	Apr-21	0	0
Final Investment Decision (FID)	Apr-21	0	0
Award EPC Contracts	Apr-21	0	0
Award Power Station Contract	Apr-21	0	1
Commence Mobilisation to Site – EPC Contractor	Apr 21	3	1
Commence Ground Improvement Works	May-21	6	1
Commence Process Plant Civil Works	Jul-21	13	3
Complete Engineering & Drafting	Sep-21	25	6
Complete Communities Relocation Program	Sep-21	26	6
Complete Wharf Construction	Nov-21	35	8
Complete Accommodation Camp	Nov-21	35	8
Commence Mining Pre-strip and Haul Roads Construction	Dec-21	35	8
Commence Process Plant (Dry) Pre-Commissioning	Apr-22	56	13
Complete Power Station & Power Available	May-22	57	13
Complete DSTP System	Jul-22	65	15
Commence Process Plant (Wet) Pre-Commissioning	Jul-22	65	15
Commence Process Plant Ore Commissioning	Aug-22	70	16
Process Plant Practical Completion	Oct-22	78	18
First Gold Production	Q4 2022		

*(subject to COVID-19 restrictions)

1.13 Operations

The operations workforce will be under the control of the General Manager who will be supported by six main departments, each with a manager heading the department; namely Mining, Processing, Maintenance, Commercial, Environment and Community Relations and Health, Safety & Security. The IPP will report to the Maintenance Manager, who has already been appointed, as has the Environment and Community Relations Manager.

The organisational structure will be reviewed and finalised during the initial stages of project implementation when senior operating personnel will take ownership of building the operating teams. The current operating cost estimate is based on this organisational structure which is considered appropriate for an operation of this scale and type.

The current estimated total staff numbers will range between approximately 460 and 530 during mining operations. Mine, plant and administration roles will be predominantly filled by PNG nationals. In the majority of cases, these positions will be full time permanent positions to conform to PNG labour law requirements. Expatriate numbers have been kept to a minimum practical level for the safe, cost effective and efficient operation of the mine in accordance with applicable PNG regulations.

Recruitment of operations personnel will take place from multiple sources. To reduce the likelihood of in-migration, non-Woodlark Islanders will not be eligible to gain employment by travelling to Woodlark Island and applying for work at the mine site (i.e. points of hire will be established in Port Moresby and other centres).

Capabilities of non-literate personnel will be assessed using appropriate tools and methods to determine their suitability to be trained to perform roles as identified. WML will recruit its national workforce under a preferential hiring policy in the following order:

- Woodlark Island local residents.
- Milne Bay Province residents.
- Other PNG residents.

The process plant and mine operations will operate 24 hours per day, 365 days a year. Depending on the department and work requirements, (for example administration vs operators), staff will either be on a 16 days on/12 days off roster, or a 14 days on/7 days off roster. There will be no differentiation based on local or FIFO status of employment.

Staff will generally work a 12 hour shift with operations teams alternating between night and day shift, and the majority of office and supervisory staff working day shift only (excepting plant and mine supervisors).

1.13.1 Ramp Up and Production

Based on GPR's revised 2020 Implementation Plan, mining and process plant ramp up and production estimates have been prepared to facilitate the development of the Financial Model and determine the timing of expenditure and revenue streams.

The mining team is planned to be mobilised during the construction phase (Q4 2021) to allow establishment of the mine services area, development of haul roads, mine pre-strip, building of an initial ROM stockpile and other mining infrastructure.

The plant ramp up schedule has been developed to reflect the simple, robust flowsheet of the processing facility, using ramp up data from similar regional operations as a basis.

Mine pre-strip will commence ten months prior to the commencement of operations.

1.14 Operating Cost Estimate

The overall November 2020 LOM processing and administration operating cost estimate is summarised in Table 1.14.1.

The process plant operating cost has been generated by GRES and incorporated in the Financial Model using the mine schedules and costs developed by Mining Plus, the plant feed schedule developed by Mining Plus and the administration, processing and infrastructure costs developed by GRES, Axiom and GPR.

Table 1.14.1 Overall LOM Processing and Administration Operating Cost Estimate

Cost Centre	Total LOM Cost	
	LOM Plant Feed	30.8 Mt
	A$	A$/t processed
Processing	419,579,577	13.60
General and Administration	220,874,024	7.16
Total	**640,453,601**	**20.76**

The operating costs include the contract costs for the assay laboratory and the power station. The costs presented in Table 1.14.1 do not include mining costs – these are presented in Sections 1.5 and 1.16.

1.15 Capital Cost Estimate and Schedule Summary

1.15.1 Capital Cost Estimate

The overall project capital cost estimate was compiled by Axiom from inputs developed by GRES, Axiom, Mining Plus and Geopacific.

The estimate of initial capital cost is summarised in Table 1.15.1.

Table 1.15.1 Capital Cost Estimate Summary

Area	A$
Directs	
Open Pit Mining	24,623,000
Plant Site Development	3,918,000
Process Plant	47,825,000
Plant Infrastructure & Utilities	22,551,000
Non-Process Infrastructure	25,863,000
Subtotal Directs	***124,780,000***
Indirects	
Construction Indirects *(owner and contractor)*	28,457,000
Project Delivery Management *(includes contractors' engineering, management and fees)*	46,363,000
Other Capitalised Costs *(Owner's Costs)*	36,300,000
Subtotal Indirects	***111,120,000***
Contingency	18,900,000
TOTAL PROJECT	***254,800,000**

* Establishment capital estimate completed to a -2%/+8% level of accuracy

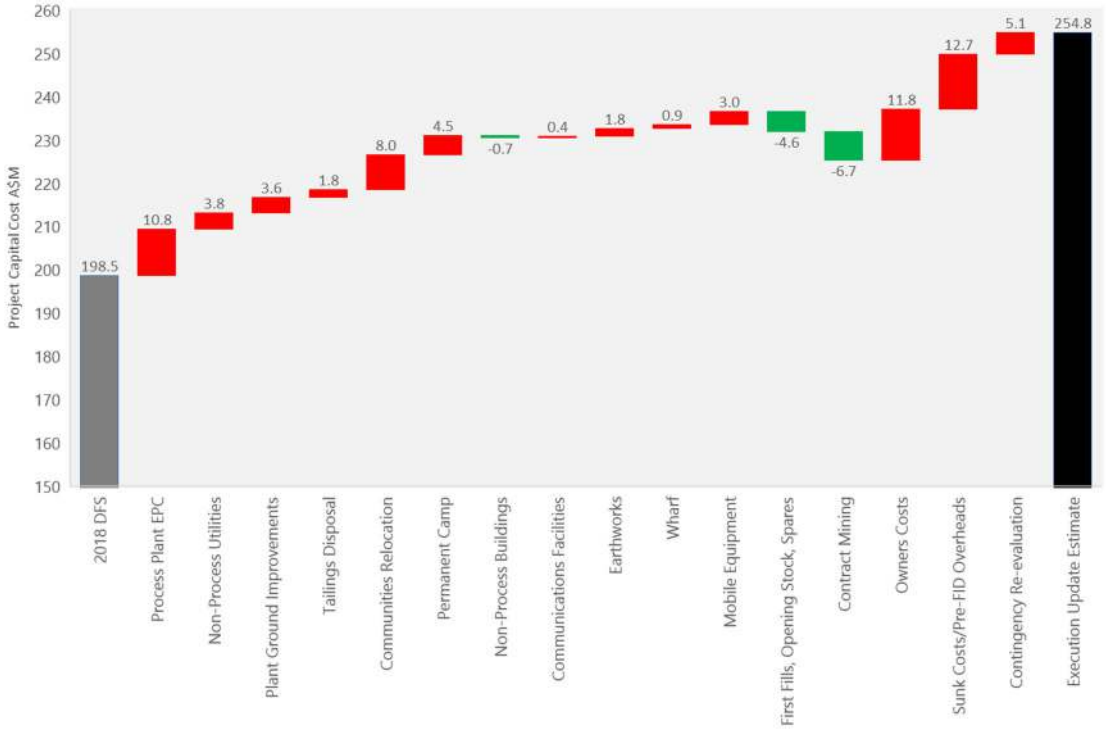
The estimate has been prepared to align with the requirements of a Class 3 estimate as per the AACE recommended practice 47R-11: Cost Estimate Classification System – As Applied in Engineering, Procurement, and Construction for the Mining and Mineral Processing Industries. This guideline recommends that "a best industry practice to manage investment risk is to equate mining feasibility study capital cost estimates as AACE Class 3 (basis for full funding)". The estimate has been completed to a -2%/+8% level of accuracy.

A Class 3 estimate requires a detailed mine plan, metallurgical test work sufficient to prepare equipment lists/specifications, general arrangements, preliminary P&IDs and single line electrical drawings. Project definition deliverables are expected to be between 10-40% of full definition. Major equipment and contracts should be priced based on supplier quotations. This estimate generally meets or exceeds these requirements.

The power station will be built, owned and operated by a third party. The capital cost estimates include an establishment fee for the power station.

Changes from the 2018 DFS to the current estimate are shown below in Figure 1.15.1.

Figure 1.15.1 Waterfall Chart – Changes from 2018 DFS to Current Estimate



Major changes include:

- Increased cost of the process plant, now based on firm EPC pricing.
- Increased costs for ground improvement works at the plant site.
- Increased costs due to improved scope definition in the non-process utilities compromising of the raw water storage and seawater supply, diesel storage facilities and power distribution.
- Increased length of the onshore tailings pipeline and compliance to the revised Environment Permit issued in May 2020.
- Increased scope and quality of community relocation program.
- Reduction in initial mine capital cost with contractor mining in lieu of owner mining.
- Increase in owners' costs, based on updated staffing plans and general review.
- Pre-development and Project holding costs since completion of the 2018 DFS.
- COVID-19 impacts on Project execution and inefficiencies due to interruptions to early construction works.

Items have been priced within the estimate in native currency. Exchange rates and currency exposures are show below in Table 1.15.3.

Table 1.15.3 Exchange Rates and Currency Exposure

Currency	A$ Rate	Native Currency Amount ('000)	A$ '000 Amount
Australian Dollar	1.00	152,216	152,216
Chinese Renminbi	4.97	35,025	7,047
Euro	0.61	469	768
Papua New Guinea Kina	2.54	181,962	71,638
United States Dollar	0.73	16,713	22,895
South African Rand	12.16	2,870	236
TOTAL			***254,800**

* Establishment capital estimate completed to a -2%/+8% level of accuracy

1.15.2 Schedule Summary

Key Project milestones are shown below in Table 1.15.4.

Table 1.15.4 Key Milestones

Milestone	Planned
Communities relocation, early works and FEED	Mar 2020
Plant Earthworks Commence	Feb 2021
Investment Decision (FID)	**Apr 2021**
Mining Fleet Order	Apr 2021
Communities Relocation Complete	Sep 2021
Wharf Complete	Nov 2021
Mining Pre-Strip Commence	Dec 2021
Mill Shells & Drives Delivered to Site	Mar 2022
Dry Commissioning Commence	Apr 2022
Power Plant Complete	May 2022
Ore Commissioning Commence	Aug 2022
Ore Commissioning Complete/First CIL Gold	**Q4 2022**

*(subject to COVID-19 restrictions)

The schedule has been based on input from key contractors and tenderers, most notably the proposed process plant EPC contractor GRES.

A schedule and capital cost risk assessment was undertaken to assess the expected range and recommended contingency for the Project.

The assessment considered uncertainty within the estimate as well as the following discrete risks:

- Additional ground improvements need to stabilise the plant site.
- COVID-19 lock-downs to site and PNG.

These discrete risks were excluded for the purposes of assessing contingency, but included when assessing overall range and management reserve.

1.16 Financial Model

The financial analysis of the Project assesses the economic viability and performance of the Project pursuant to the assumptions and results of the study.

The Operating Cost section of the Financial Model includes all costs associated with mining, processing, administration, transport of doré, refinement of doré and royalties. These cost categories incorporate all appropriate labour, consumables, operating, maintenance and other costs. Revenue is based on quantities of gold sold multiplied by the selected gold price of A$2,200/oz.

The results of the Financial Model include the pre-tax and post-tax Project cash flows along with the unit costs per ounce of gold sold, including C1 cash costs and all-in-sustaining costs (AISC). Various measures of project value have also been calculated including the payback period, net present value of cashflows (NPV) and internal rate of return (IRR). Sensitivity analysis was performed against the base case financial model to demonstrate the effect of variations in key parameters on the economic returns from the Project.

The key assumptions for the financial model are listed in Table 1.16.1.

Table 1.16.1 Key Financial Assumptions

Item	Unit	Value
• Gold Price	A$/oz	2,200
• Landed Diesel Price	A$/L	0.75
• Foreign Exchange Rates		
Papua New Guinean Kina	PGK/A$	2.54
United States Dollar	USD/A$	0.73
Chinese Renminbi	RMB/A$	4.97
Euro	EUR/A$	0.61
Pounds Sterling	GBP/A$	0.55
Japanese Yen	JPY/A$	83.23
South African Rand	ZAR/A$	12.16
• PNG Royalty and MRA Levy	% of revenue *(net of refining costs)*	2.5%
• Tax Losses *Allowable Exploration Expenditure (AEE) and Allowable Capital Expenditure (ACE)*	PGK	153,393,280 *(before pre-production costs and capital expenditure)*

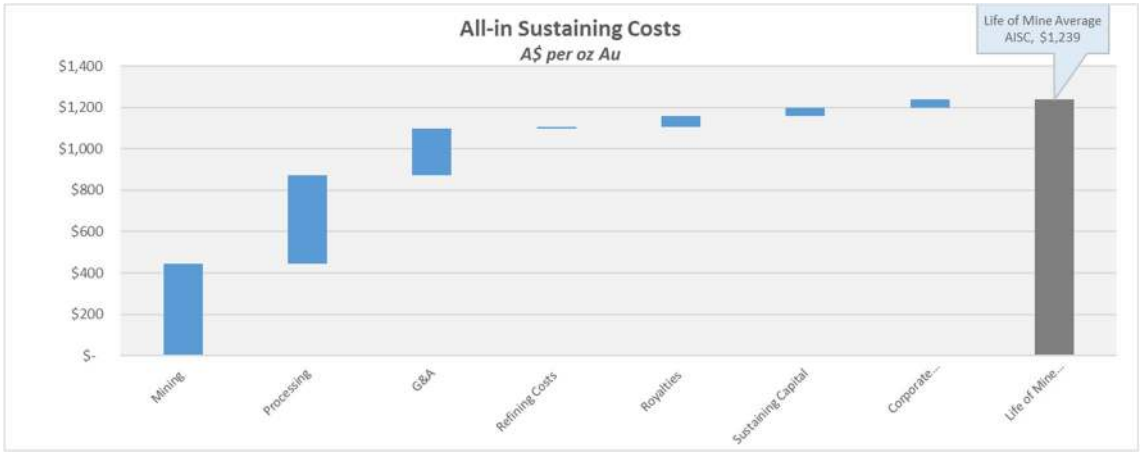
1.16.1 Unit Costs - Cash Costs (C1) and All-In Sustaining Costs (AISC)

Over the LOM, the weighted average AISC are estimated at A$1,239/oz Au providing an average margin of A$961/oz at the assumed gold price and delivering significant free cashflow particularly early in the operating life. The LOM breakdown of C1 and AISC by cost category are shown in Figure 1.16.1 and in a waterfall chart in Figure 1.16.2.

Figure 1.16.1 Unit Cost Estimates – Life of Mine Summary

Metric	Unit	Life of Mine Summary
Mining	A$/oz	446
Processing	A$/oz	428
General and Administration	A$/oz	225
Refining Costs	A$/oz	7
Total C1 Costs	A$/oz	1,106
Royalties	A$/oz	55
Sustaining Capital	A$/oz	38
Corporate Overheads	A$/oz	40
Total AISC	A$/oz	1,239

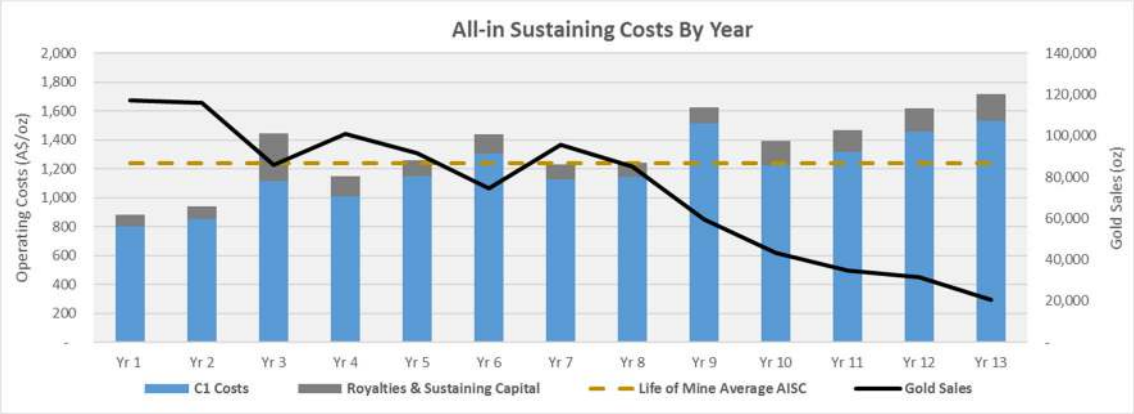
Figure 1.16.2 Unit Cost Estimates – Waterfall Chart



The forecast AISC ranges from A$882/oz Au in Year 2 of production when gold sales peak at 117k oz and hit a high of A$1,715/oz in the final year of production when gold sales decrease to 20.5k oz. A spike in forecast sustaining capital costs is evident in Year 3 where the planned transition from contract mining to Owner operator results in a capital purchase requirement for the mining fleet.

The breakdown of C1 and AISC by year is shown in Figure 1.16.3 which outlines the inverse correlation with gold sales.

Figure 1.16.3 Unit Costs – Life of Mine Summary



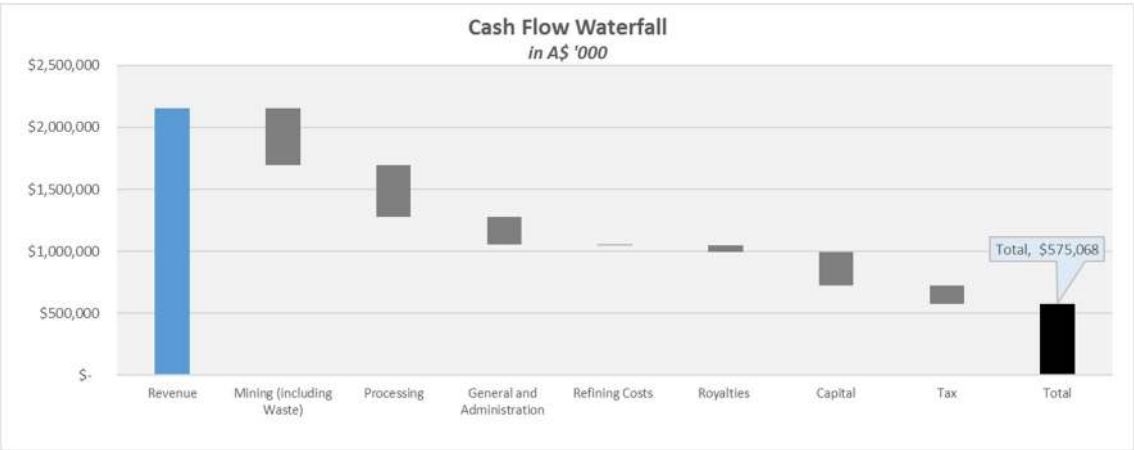
1.16.2 Cash Flow

The forecast ungeared post-tax cashflow of the Project is A$575 million as shown in Figure 1.16.4 and a breakdown of the cashflow by category is shown in Figure 1.16.5.

Figure 1.16.4 Life of Mine – Post-tax Project Cashflow (Ungeared)

Metric	Unit	Life of Mine Summary
Free Cashflow (Pre-tax)	A$ '000	726,629
Income Tax	A$ '000	(151,561)
Free Cashflow (Post-tax)	A$ '000	575,068

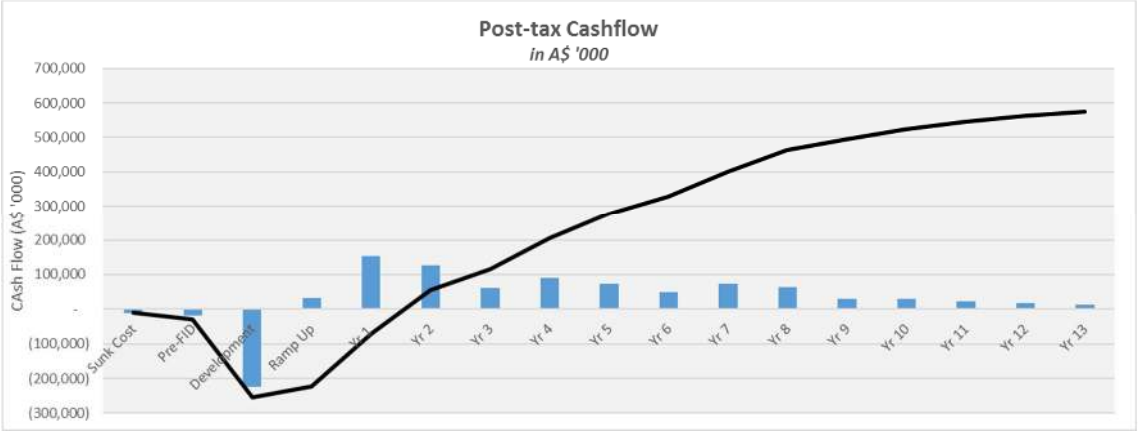
Figure 1.16.5 Cashflow Waterfall (Ungeared)



The Financial Model demonstrates substantial cashflow generation from the Project in the initial years of production. The early cashflow is a function of near surface mineralisation and the mine scheduling which was designed to maximise gold production in the early years. This provides optimal Project payback and acts as a measure to de-risk the Project during the expected debt repayment window.

The Project cashflow by year is outlined in Figure 1.16.6.

Figure 1.16.6 Cumulative Post-tax Project Cashflow by Year (Ungeared)



1.16.3 Discounted Cash Flow

The net cashflows have been discounted at 8% to calculate a NPV of post-tax cashflows of A$346.8 million. The pre-tax and post-tax NPV's are displayed in Figure 1.16.7.

Figure 1.16.7 Pre-Tax and Post-Tax NPV

Metric	Unit	Life of Mine Summary
NPV_8 (pre-tax cash flows)	A$ '000	445,606
NPV_8 (post-tax cash flows)	A$ '000	346,808

1.16.4 Internal Rate of Return (IRR)

The net cashflows have been applied to calculate the IRR of the Project. The pre-tax and post-tax IRR's are displayed in Figure 1.16.8.

Figure 1.16.8 Pre-Tax and Post-Tax IRR

Metric	Unit	Life of Mine Summary
IRR (pre-tax cash flows)	%	39
IRR (post-tax cash flows)	%	34

1.16.5 Project Payback Period

The net cashflows have been applied to calculate the Project Payback Period. The pre- and post-tax Project Payback Periods are displayed in Figure 1.16.9.

Figure 1.16.9 Pre-Tax and Post-Tax Project Payback Period

Metric	Unit	Life of Mine Summary
Project Payback (pre-tax)	months	20
Project Payback (pre-tax)	years	1.7
Project Payback (post-tax)	months	22
Project Payback (post-tax)	years	1.8

1.17 Project Risks and Opportunities

1.17.1 Risks

GPR have developed a detailed register of risks using a structured risk management framework. The risk register lists and assesses all identified risks for both the construction and operational phases of the Project. Several key Project risk areas have been identified, and mitigation actions developed for both construction and operational phases of the project. Key Project risk areas include:

- Health, safety and security.
- COVID-19.
- Supply chain, including transport and logistics.
- Environmental and social impact.
- Human resources.
- Commercial.
- Sovereign and regulatory.
- Geotechnical drilling requirements.

- Communications.
- Technical risks associated with construction, mining, mine planning and mineral processing.

Mitigation measures have been developed.

The key recent addition to the risk register is COVID-19 which has been allocated its own risk category to ensure that potential implications are well understood. COVID-19 risks relate to health consequences, as well as potential supply, logistical and commercial outcomes.

1.17.2 Opportunities

A number of opportunities were identified during the Project review and execution planning which have been incorporated into the Project plan, including:

- The inclusion of surge bin and emergency stockpile has been included in the process flowsheet which provides increased stability in the mill feed and a basis to maintain a reliable mill feed in the event of crusher downtime.
- Space allowance has been made within the plant layout for future inclusion of an additional CIL tank and other components which can increase the throughput from 2.4 Mtpa to 2.8 Mtpa.
- The permanent mine camp has been moved to a location within walking distance of the plant which will reduce personnel travel time to improve operational productivity.
- The allocation of additional funding in the early works phase prior to FID will further de-risk the Project schedule.
- Up-skilling of the local Woodlark Island workforce will provide lasting benefits to the local community and to reduce the reliance on expatriate, third party national and off island national component of the workforce. A *MyPotentia* survey is planned for Q1 2021 to provide valuable information as to the existing skill set and potential of the local workforce.
- The use of local contractors via the establishment of business ventures to increase the involvement of the community in the Project and provide the base for sustainable local businesses will provide important and sustainable benefit to the people of Woodlark Island. GPR have engaged specialist consultants in PNG to assist and provide training to local landowners.