

# **MOUNT BUNDY DFS**

# **SECTION 1.0**

## **EXECUTIVE SUMMARY**

Prepared by:



ABN 64 064 105 488

Rev No	Date	Revision	Ву	Reviewed	Approved
A	17/08/23	Issued For Internal Review	SC	LL	SC
В	18/08/23	Issued For Study	SC		SC
С	06/09/23	Re-Issued For Study	SC		SC
D	03/11/23	Final Update	JZ		MQ

### Table of Contents

1. Exe	ecutive Summary	4
1.1	Introduction	4
1.2	Property Description, Location and History	6
1.3	Geology and Resources	9
1.4	Mineral Processing and Metallurgical Testing	15
1.5	Open Pit Mining	21
1.6	Underground Mining	28
1.7	Reserves	33
1.8	Production Schedule	34
1.9	Process Plant	35
1.10	Project Infrastructure	38
1.11	Project Implementation	39
1.12	Environmental Approvals and Permitting	40
1.13	Capital and Operating Costs	41
1.14	Economic Analysis	43
1.15	Risk Analysis	46
1.16	Conclusion	46
2. List	of References	47

## Figures

Figure 1-1 Mt Bundy Project Locations Map	
Figure 1-2 Location Plan of Mt Bundy tenements (including Rustlers Roost, Toms Gully & Quest 29 Proje	ct)7
Figure 1-3 Mt Bundy Location	9
Figure 1-4 Geology and Structures of the Mt Bundy Projects Area (Muller, 2011)	10
Figure 1-5 Long Section View of RR Block Model Dimensions (Dec 2021)	
Figure 1-6 Toms Gully Block Model – Isometric View Showing Resource Classifications (2021)	13
Figure 1-7 Q29 Block Model - Isometric View Showing Resource Classifications and Hole Types (2021)	13
Figure 1-8 Rustlers Roost Proposed DFS Treatment Flowsheet	19
Figure 1-9 Annie Okaley Reserve Final Pit Design	23
Figure 1-10 Rustler Roost Reserve Final Pit Design	
Figure 1-11 Quest 29 Reserve Final Pit Designs	24
Figure 1-12 Rustlers Roost LOM Final Pit Design	
Figure 1-13 Quest 29 LOM Final Pit Designs	
Figure 1-14 TG Mine Design – Scenario 2 (Reserves), Side View Looking West (Activity)	29
Figure 1-15 TG Mine Design - Reserve, Plan View (Grade)	
Figure 1-16 Reserve Case – Mt Bundy Ounce Production by Year & Head Grade	
Figure 1-17 LOM Case – Mt Bundy Ounce Production by Year & Head Grade	
Figure 1-18 Rustlers Roost Process Plant, 3D Image, View Looking NE	35
Figure 1-19 Rustler Roost Plant, Simplified Process Flowsheet	36
Figure 1-20 Mount Bundy, Rustlers Roost Detailed Process Plant Flowsheet	37
Figure 1-21 Rustlers Roost Site Layout	39
Figure 1-22 Summarised Project Implementation Schedule	
Figure 1-23 Reserve Case Cashflows (Before Tax and Financing)	
Figure 1-24 LOM Case Cashflows (Before Tax and Financing)	45

### Tables

Table 1-1 Project Financial Metrics Summary, By Scenario	5
Table 1-2 Mt Bundy Mining Tenement Details	
Table 1-3 Mt Bundy Exploration Tenement Details	8
Table 1-4 Estimated Historical Mt Bundy Gold Production	8
Table 1-5 Mt Bundy Drilling Summary	11
Table 1-6 Summary of In-situ Mineral Resource Estimates for Mt Bundy Project (Dec 2021)	
Table 1-7 Combined Bulk Gravity/Flotation Con. Block 1 & 2 Composites	
Table 1-8 Option 4 - Tom's Gully Recovery Breakdown Including Gravity and Intense Leach of Float Con	
Table 1-9 2021 Results Summary, RR Fresh Ore Leach Testwork	
Table 1-10 Quest 29 2021 Average Leach Test Results	17
Table 1-11 Results Summary, RR Variability Comps – 2,500 Blanking Dosage	
Table 1-12 Average Leach Test Results – RR All Ore Types	18
Table 1-13 DFS Optimal Leach Test Conditions	18
Table 1-14 Rustlers Roost, LOM Stockpile Grade & Recovery Estimation	19
Table 1-15 Open Pit – Reserve Case Inventory Summary	22
Table 1-16 Open Pit – LOM Case Inventory Summary	24
Table 1-17 Toms Gully Design Scenarios	29
Table 1-18 Open Pit Ore Reserve Summary	33
Table 1-19 Toms Gully Ore Reserve Summary	33
Table 1-20 DFS Development Capital Estimate	
Table 1-21 OPEX Summary by Production Scenario	
Table 1-22 Project Financial Metrics, By Scenario	44
Table 1-23 Financial Model Assumptions	44

#### 1. EXECUTIVE SUMMARY

#### 1.1 Introduction

The Mt Bundy Gold Project (MBGP) is proposed to be developed as a new 5 million tonne per annum (5Mtpa) gold processing operation, located at the existing Rustlers Roost mine site which previously produced gold from heap leaching. The operation will include open pit bulk mining at Rustlers Roost and Quest 29, underground mining at Tom's Gully, and the construction of a new 5Mtpa central processing plant and TSF at Rustlers Roost. The project is owned 100% by Primary Gold, a wholly owned subsidiary of Hanking Australia (ACN 613858843).

The project is located approximately100km southeast of Darwin, the capital city of the Northern Territory, along the Arnhem Highway. The project is approximately 1hr drive from the Darwin Port and Darwin International Airport.

Following the successful 2021 prefeasibility study, new Mineral Resource estimates were completed by Cube Consulting in 2021 and new Ore Reserve estimates by Orelogy Consulting for the open pits in 2022 and for Toms Gully underground in 2023. Primary Gold engaged Mintrex Pty Ltd to conduct a Definitive Feasibility Study (DFS) for the development of the Mt Bundy Gold Project centred around the construction of a 5Mtpa new process plant located at Rustlers Roost and a new TSF (designed by Knight Piesold).

The Mt Bundy project has over 3Moz of gold in Mineral Resources and 1.64 Moz of gold in Ore Reserve in accordance with JORC 2012 Code, which makes Mt Bundy one of the largest undeveloped gold Ore Reserves with one of the lowest strip ratios in Australia. The Mt Bundy Gold Project was awarded the Major Project status by the Northern Territory Government of Australia in 2022, recognising the significance of the project.

Primary Gold received AAPA (Aboriginal Areas Protection Authority) heritage clearance certificate for the project in 2022, the project is not subject to any Native Title claims. All gold resources are in granted mining leases. The key Mining leases have been renewed for 30 years and environmental approvals have been granted. Existing infrastructure includes the recent grid power connection to the Tom's Gully underground mine site, the construction of a water treatment plant and access road upgrade including a new bridge connecting the project sites all year round.

The DFS considers two development scenarios, the 'Reserve Case' and 'LOM Case', with each summarised below:

#### i) Reserve Case (11Yrs)

- Open pit production data includes all ore inventory from the 2022 Ore Reserve pit designs, with pit optimisations conducted using A\$2,350/oz gold price (Mining costs and production schedule have been updated for the DFS as of July 2023).
- Underground production data including all ore inventory from 2023 Ore Reserve design, with underground mining optimisation conducted using A\$2,350/oz gold price.
- Production averages **170koz/year for the first 5 years**, peaking at over 190koz.
- Total ore production, 98% Ore Reserve and 2% Inferred mining inventory
- Process plant average throughput at 5.0Mtpa
- Financial model revenue calculated at A\$2,750/oz gold price for base evaluation (current spot gold price is A\$3100/oz).

#### ii) LOM Case (13Yrs)

- Open pit production data includes all ore inventory from the 2023 larger pit designs, with pit optimisations conducted using A\$2,750/oz gold price.
- Production data from underground including all ore inventory from the 2023 scenario 1B design, as well as the Toms Gully 'Crown Pillar' extraction.
- Production averages 170koz/year for the first 7 years, peaking at over 190koz.
- Total ore production, 90% Ore Reserve (Probable), 10% Inferred mining inventory
- Process plant average throughput at 5.3Mtpa
- Financial model revenue calculated at A\$2,750/oz gold price for base evaluation (current spot gold price is A\$3100/oz).

Development capital quotes for key plant and equipment have been sourced from established major industry suppliers, including Wier for the HPGR and Metso:Outotec for the Ball Mill package. Civil and SMP works have been quoted from both local (Northern Territory) and Western Australian suppliers.

The financial metrics for each of the cases are summarised in	Table 1-1 below:
---	------------------

MODEL	MODEL UNITS RESERVE CASE (A\$2350/oz)		LON	Л CASE (A\$2750	)/oz)		
PROJECT PHYSICALS		Gold A\$2550	Gold A\$2750	Gold A\$2950	Gold A\$2550	Gold A\$2750	Gold A\$2950
Project Life	Yr	11	11	11	13	13	13
Total Ore Mined	Mt	56.3	56.3	56.3	66.3	66.3	66.3
Strip Ratio	W:O	1.58	1.58	1.58	1.79	1.79	1.79
Ore Grade	g/t	0.92	0.92	0.92	0.92	0.92	0.92
Ounces Contained	oz	1,670,474	1,670,474	1,670,474	1,952,970	1,952,970	1,952,970
Recovery	%	87.4%	87.4%	87.4%	86.5%	86.5%	86.5%
Ounces Recovered	oz	1,460,670	1,460,670	1,460,670	1,690,224	1,690,224	1,690,224
Ave. Plant Throughput	Mtpa	5.0	5.0	5.0	5.3	5.3	5.3
Ave. Annual Ounce Production	ozpa	131,790	131,790	131,790	135,218	135,218	135,218
PROJECT FINANCIALS							
Development Capital	A\$M	394	394	394	394	394	394
Closure & Rehabilitation	A\$M	32	32	32	32	32	32
Gold Price	A\$/oz	2,550	2,750	2,950	2,550	2,750	2,950
Gold Sales Revenue	A\$M	3,725	4,017	4,309	4,310	4,648	4,986
Project Costs (Pre-Tax)	A\$M	2,340	2,400	2,460	2,765	2,833	2,902
Project Cashflow (Pre-Tax)	A\$M	959	1,191	1,423	1,119	1,389	1,658
NPV6 (Pre-Tax)	A\$M	600	765	931	688	874	1059
IRR (Pre-Tax)	%	34%	40%	46%	34%	40%	45%
Payback Period	A\$M	2.4	2.1	1.9	2.6	2.3	2.1
COSTS OF PRODUCTION							
Mining Cost Per Ore Tonne	A\$/t	14.5	14.5	14.5	15.2	15.2	15.2
Processing Cost Per Ore Tonne	A\$/t	18.6	18.6	18.6	18.1	18.1	18.1
Site G&A Cost Per Ore Tonne	A\$/t	2.0	2.0	2.0	2.0	2.0	2.0
Total Cash Cost (C1) Per Ore Tonne	A\$/t	35.2	35.2	35.2	35.4	35.4	35.4
Total Cash Cost (C1) Per Ounce	A\$/oz	1,340	1,340	1,340	1,373	1,373	1,373
Royalties	A\$/oz	68	73	78	67	73	78
Sustaining Costs	A\$/oz	63	63	63	63	63	63
All In Sustaining Cost (AISC) Per Ounce	A\$/oz	1,471	1,477	1,482	1,503	1,508	1,514

Table 1-1 Project Financial Metrics Summary, By Scenario

As shown in the Table 1-1, both cases produce robust financial metrics at the selected base gold price of A\$2,750/oz. The payback period is similar showing just over 2 years and the IRR is the same for both cases at 40%, however the LOM Case has superior pre-tax NPV6 of \$874M verses \$765M for the Reserve Case.

Considering AUD gold price is currently trading around \$3,100/oz, the upside case metrics at A\$2,950/oz should be considered achievable, which presents as exceptional for a gold development project of this scale in the current market. Further detail on financial model input and assumptions used are presented in chapter 13 of the DFS report.

The following sections of the Executive Summary provide detail on each component of the Definitive Feasibility Study, with reference to the related chapters and appendices of the report for the source information.

#### 1.2 Property Description, Location and History

The Mt Bundy Gold Project is located approximately 100 km SE of Darwin, in the Northern Territory of Australia, refer Figure 1-1 Mt Bundy Project Locations Map. The project area has historical mining activity and some established mining industries in the surrounds. The primary land use is pastoral grassing for cattle the main use and fruit farming to a lesser extent with only one station owner in the mine area. The proximity of the site to the nearest airport in Darwin (80 km) and regional town of Marrakai (20 km) is expected to enable recruitment of Fly-In Fly-Out (FIFO) and local personnel. The Darwin Airport is an international airport with daily domestic flights to other states and regular international flights to Asian countries. The Darwin Port is only 1hr drive from the project site, allowing for direct transfer of freight for major equipment and consumables.

The 3 mining prospects are located within an 8km radius, with the Toms Gully gold mine to the north, Rustlers Roost to the west and Quest 29 to the southeast of the project centre, as shown in Figure 1-1 below. Grid power has recent been connected to the Tom's Gully mine site, ready for the underground mine electricity supply and the proposed central camp located near Tom's Gully.



Figure 1-1 Mt Bundy Project Locations Map

#### 1.2.1 Climate and Physiography

The Northern Territory has a tropical monsoon climate characterised by two distinct seasonal patterns: the 'wet' monsoon season and the 'dry' season. The wet season generally occurs from November through to April and the dry season between May and October. Pre-monsoon tropical storms occur in October and November and can restrict activities temporarily. Almost all rainfall occurs during the wet season, mostly between December and March, and the total rainfall decreases with distance from the coast. Annual rainfall is between 1200-1400 mm.

The mean daily maximum temperature, as recorded at Darwin on the northern coastline, is 31°C in the coolest months (June to August) and 33°C in the hottest months (October and November). The mean daily minimum temperature in Darwin range from approximately 19°C (dry season) to 25°C (wet season).

Topography is typically flat to gently undulating with elevations ranging from 35m to 50m above mean sea level. Vegetation is typically tropical savannah, eucalypt woodland and eucalypt open woodland with a grassy understory.

The project is located within the Old Mt Bundey Station agricultural lease, which operates as a cattle station with livestock grazing and paddocks surrounding the project area.

#### 1.2.2 Tenements and Land Tenure

The Mt Bundy Gold Project consists of 18 granted mining and exploration licenses. Primary Gold holds 100% interest in all mining and exploration tenements. The mining tenement locations are shown in the Figure 1-2 below:



Figure 1-2 Location Plan of Mt Bundy tenements (including Rustlers Roost, Toms Gully & Quest 29 Project)

Tenement numbers and detail relating to the Mt Bundy mining and exploration leases are listed in Table 1-2 and Table 1-3 below.

Tenement	Туре	Status	Project	Area (Ha)	Area (km2)	Granted Date	Expiry Date
ML29781	Mining	Granted	Quest 30	140	1.40	06-Feb-13	05-Feb-33
ML29782	Mining	Granted	Quest 29	80	0.80	06-Feb-13	05-Feb-33
ML29783	Mining	Granted	Quest 29	285	2.85	06-Feb-13	05-Feb-33
ML29785	Mining	Granted	Regional	40	0.40	06-Feb-13	05-Feb-33
ML29786	Mining	Granted	Quest 30	113	1.13	06-Feb-13	05-Feb-28
ML29812	Mining	Granted	Toms Gully	158	1.58	06-Feb-13	05-Feb-33
ML29814	Mining	Granted	Toms Gully	84	0.84	06-Feb-13	05-Feb-33
MLN1058	Mining	Granted	Toms Gully	682	6.82	03-Aug-89	02-Aug-39
MLN1083	Mining	Granted	Rustlers Roost	756	7.56	04-Mar-91	31-Dec-45

Table 1-2 Mt Bundy Mining Tenement Details

Tenement	Туре	Status	Project	Area (Ha)	Area (km2)	Granted Date	Expiry Date
EL29330	Exploration	Granted	Regional	N/A	220.22	23-Oct-12	22-Oct-24
EL29717	Exploration	Granted	Toms Gully Regional	N/A	33.69	8-Jan-14	7-Jan-24
EL30128	Exploration	Granted	Toms Gully Regional	N/A	23.3	20-May-14	19-May-24
EL30234	Exploration	Granted	Toms Gully Regional	N/A	30.13	11-Aug-15	10-Aug-25
EL30255	Exploration	Granted	Toms Gully Regional	N/A	31.2	1-Mar-16	28-Feb-24
EL30809	Exploration	Granted	RR Regional	N/A	464.64	30-Jun-15	29-Jun-25
EL30824	Exploration	Granted	RR Regional	N/A	584.24	3-Jul-15	2-Jul-25
EL32003	Exploration	Granted	RR Regional	N/A	10.04	3-May-19	2-May-25
EL32104	Exploration	Granted	Toms Gully Regional	N/A	3.35	24-Sep-19	23-Sep-25

Table 1-3 Mt Bundy Exploration Tenement Details

#### 1.2.3 Project History

The first alluvial gold was discovered at Rustlers Roost by prospectors in 1948. Modern mining in the area first commenced at Toms Gully in 1988, following the discovery of the deposit in 1986. Rustlers Roost open pit mining commenced in 1994 with a heap leach operation, focusing on mining and processing the shallow oxide ore.

Gold at Quest 29 was first discovered in the mid-1970's. Exploration continued during the 1980's and 1990's until the commencement of mining in 1999. The mining at Quest 29 focused mainly on shallow oxide open pits, where higher grade ore was trucked to Toms Gully mill for processing, and low grade ore was treated via a small heap leach located close to the mine.

The total ounce production from the Mt Bundy project has been difficult to measure due to incomplete records. Cube Consulting managed to compile some production data during their evaluation and update of the resources for each of the mining areas, the following totals are based on the Cube estimations:

MINE AREA	ORE TONNES	GRADE (g/t)	EST. OUNCES PRODUCED
<b>Rustlers Roost</b>	4,710,000	1.05	113,000
Toms Gully	512,000	8.13	115,000
Quest 29	360,000	1.04	12,000
TOTAL	5,582,000	1.70	240,000

Table 1-4 Estimated Historical Mt Bundy Gold Production

The Mt Bundy project was consolidated under Crocodile Gold in 2008 and acquired by Primary Gold Ltd in 2012. Hanking became a substantial shareholder in Primary Gold in 2014 and completed a friendly takeover of Primary Gold in 2018 taking the company private. The company has since worked on consolidating ownership of tenements, including the buying out of two JV partners, growing the resource base and optimising and permitting the project for development.

Refer to Cube Consulting 2021 Mineral Resource Reports for Rustlers Roost, Toms Gully and Quest 29 for more detail on historical mining in DFS Appendix 2A, 2B and 2C.

#### 1.3 Geology and Resources

The Mt. Bundy Gold Project is located within the Archaean to Early Proterozoic Pine Creek Orogen/Geosyncline which has about 15 Moz known gold resource, Figure 1-3. The Pine Creek Geosyncline is a deformed and metamorphosed sedimentary basin of up to 14 km maximum thickness, covering an area of approximately 66,000 sq. km and extending from Katherine in the south to Darwin in the north.



Figure 1-3 Mt Bundy Location

A series of late Archaean granite-gneiss basement domes are overlain by fluvial to marine sedimentary sequences, with the central region of the geosyncline dominated by very low-grade metasediments and metavolcanics of the South Alligator and Finniss River groups.

Turbidite sediments of the Burrell Creek Formation of the South Alligator Group underlie most of the tenement area. The turbidite sequence is exposed in the Rustlers Roost area in the southern part of the Mt Bundy tenements. Dolerite sills, such as the Zamu Dolerite at Rustlers Roost, are found within the sedimentary sequence, particularly in the southern part of the area.

Throughout the area, the Burrell Creek Formation is made up of greywackes, sandstones, siltstones and mudstones. The boundary with the Mt Bonnie Formation is defined by the appearance of chert and hematitic chert horizons. The Mt Bonnie Formation is predominately made up of shales, siltstones and mudstones with minor sandstone and volcanogenic tuffs and cherts.

The geology and structures of the Mt Bonnie Formation within the Mt Bundy project area are detailed in Figure 1-4 below:



Figure 1-4 Geology and Structures of the Mt Bundy Projects Area (Muller, 2011)

#### 1.3.1 Local Geology Summary

#### (i) Rustlers Roost

The Rustlers Roost deposit is hosted within a turbidite sequence within the Mt Bonnie Formation. The sequence is at least 1,500m thick and comprises shale, siltstone, minor tuff, greywacke and bedded chert units (Goulevitch, 2004b). Sedimentary units outcrop as banded carbonaceous siltstone and mudstone. The sediments have undergone regional greenschist grade metamorphism and later contact metamorphic events.

The sequence was later subjected to a major folding episode along north-northeast trending regional fold axis. The folds are open-to-tight in style and plunge consistently to the south at approximately 35°. Gold mineralisation is hosted in planar, south dipping quartz-sulphide sheeted vein sets that are interpreted to postdate the folding event. Following the folding, an extensive array of northeast and northwest trending dolerite dykes were intruded during extensional deformation.

The gold mineralisation at Rustlers Roost is located on both sides of the west to SW dipping fold limb between the Backhoe Syncline to the west and the Dolly Pot Anticline to the east. Elevated gold grades (>0.5 g/t Au over 2m intervals) were obtained mostly from intervals that contain one or more sulphidic chert beds. These chert beds are generally only 5-20 cm thick and less commonly 20-40 cm thick and comprise only 10-20% of the sample intervals, predominantly from RC and diamond drilling. The gold mineralization at Annie Oakley prospect is along the Tanya Anticline hinge zone. Recent RC drilling has identified a previously un-discovered zone containing two broad, sub-vertically dipping gold mineralisation domains over a strike length of 350 m and 150m vertical depth. The resource for Annie Oakley prospect is about 2% of the whole Rustlers Roost project.

#### (ii) Toms Gully

The Toms Gully mineralisation consists of a shallow dipping quartz reef hosted in graphitic shale and siltstone of the Wildman Siltstone unit. The deposit lies entirely within a broad, planar quartz sulphide vein which strikes east-west and dips south at approximately 30° in outcropping exposures, to near horizontal at approximately 1,650 m down dip (280 m vertical depth).

Carbonaceous shales and siltstones of the Wildman Group dominate the lithology in the vicinity of the Toms Gully Gold Mine. Locally the sediment package dips to the south and the quartz reef appears to be conformable with the sediments. The sediments are generally well banded with little structural fabric, however, within 1 to 2 m of the reef, a deformation fabric consisting of varying degrees of shearing and brecciation is typically present.

The quartz reef is a composite structure comprised of two main quartz types being euhedral bull textured quartz along with minor comb-textured and ribbon-textured milky quartz, and blue-grey cherty quartz and sulphides. The sulphide ore shoots within the eastern half of the quartz reefs are predominantly carried by the blue-grey cherty quartz and associated pyrite, arsenopyrite, loellingite and gold along with minor pyrrhotite, galena, chalcopyrite and rare sphalerite. The mineralized quartz reef has a thickness ranging from 0.5 m up to occasionally 5.0 m with a strike length of 800 m. Surface drilling indicates that the "ore shoot" extends down plunge for over 1,650 m.

#### (iii) Quest 29

The Quest 29 area is mostly underlain by the metasediments of the Koolpin Formation. Locally there are dolerite sills (Zamu Dolerite) occur frequently within the sequence.

The Koolpin Formation is comprised mainly of pyritic and pyrrhotitic, carbonaceous siltstone with andalusite porphyroblasts. Bands of re-crystallised laminated and nodular chert are common along the main ridge running up the western side of the property. The enveloping carbonaceous siltstones are more strongly silicified along this ridge. Thin green-grey layers within the siltstones are possibly iron formations.

The sediments, tuffs and dolerites occupy the core of a regional anticline (the Quest 29 Anticline). The axis of this anticline plunges to the south-southeast at a shallow angle. Gold mineralisation occurs in both the dolerite and the carbonaceous siltstones. The host dolerite dips to the east at 50°-70°.

The Quest 29 sedimentary sequence stretches from south of Taipan through West Koolpin, North Koolpin and BHS in the North prior to being truncated by a regional scale fault of approximately 400m offset at the northern boundary of the mineral claims. This trend is comprised of the western limb on a south plunging anticlinal fold of Koolpin meta-sediments crosscut in several places by small scale faults.

The gold mineralisation occurs semi-continuously over a strike length of more than 3.5km along the crest of the Quest 29 anticline. The style of mineralisation throughout the Quest 29 zones is associated with sheeted or stockworked quartz-sulphide veins hosted by dolerite sills or along the sheared contact margins with siltstones and carbonaceous shales.

#### 1.3.2 Mt Bundy Mineral Resources

Significant drilling has been conducted at Mt Bundy Gold Project with over 300,000 meters drilled, which forms the basis for the Mineral Resource estimates. A summary of drilling conducted at the project, by year, is shown in the following table:

Year	Project	Hole Type	No. Holes	Drilled Metres (m)
Pre-PGO	Mt Bundy	RC/DDH/RAB & Other	12,832	252,341
PGO	Mt Bundy	RC/DDH	38	5,647
2010	Rustlers Roost	DD HQ	9	2,230
2018	Toms Gully	RCD NQ	6	3,698
2010	Anomaly 11	RCD NQ	3	883
2019	Tanya	RC	13	1,484
	TG South	RCD NQ	1	418
2020	Quest 29	RC	32	3,879
2020	Rustlers Roost	RC	29	4,427
	Rustlers Roost	RCD NQ	8	3,197
	Annie Oakley	RC	63	6,615
	Quest 29	RC	137	15,330
2021	Quest 29	DD / RCD	14	2,889
	Rustlers Roost	RC	3	502
	Rustlers Roost	RCD NQ/HQ	2	581
	Rustlers Roost	RC	5	760
2022	Quest 29	RC	17	1824
2023	Toms Gully	RCD	7	1925.3
	Armstrong	RC	4	372
TOTAL			13,223	309,002

Table 1-5 Mt Bundy Drilling Summary

The following provides a summary of the mineral resource estimates (MRE) undertaken by Cube Consulting Pty Ltd (Cube) for the Rustlers Roost (including Annie Oakley), Toms Gully and Quest 29 gold deposits which

make up the Mt Bundy Gold Project. The full MRE Technical Reports prepared by Cube for Rustlers Roost, Toms Gully and Quest 29 gold projects are included in the DFS Appendices 2A, 2B & 2C.

#### (i) Rustlers Roost & Annie Okaley

Rustlers Rooster is a simple large-scale orebody up to 140 meters in thickness. The orebody has been welldrilled, with more than 950 drill holes for a total of more than 83,000 meters drilling, including more than 100 holes drilled by Hanking (Primary Gold) since 2018.

The grade estimation approach used by Cube for the Rustlers Roost deposit utilised the Localised Uniform Conditioning (LUC) method. The LUC estimate method is likely to provide a better representation of the achievable selectivity (grade-tonnage curve) during mining than would be predicted using the panel estimate such as Ordinary Kriging (OK) according to Cube.

For the Annie Okaley deposit the OK estimation method was used to estimate gold into the 3D block model for the 2021 MRE. Inverse distance to the power of two (ID2) was included in the grade interpolation runs as a check estimate or alternate to reporting block grades where gold grades provided better representation of mean composite grade data than OK block grades.



Figure 1-5 Long Section View of RR Block Model Dimensions (Dec 2021)

#### (i) Toms Gully

Tom's Gully is a high-grade quartz vein deposit. A total of 2,192 drillholes were drilled for a total of more than 90,000m, which forms the basis for the Mineral Resource estimate.

A 2D projection method of interpolation was utilised for the Toms Gully quartz reef mineralised domain. In the 2D modelling approach, the mineralised vein is bounded by a hanging wall and a footwall surface, then the vein is composited over its vertical thickness, and a gold x thickness accumulation calculated. The resulting composite file can be transformed into 2D space and the variograms calculated from this data. The data is smoothed according to the variable thickness of the vein.

A 3D block model was created to represent the final grade and volume model for reporting. The grade estimate for the quartz reef mineralised domain was imported from the 2D model described above (Cube, 2021).



Figure 1-6 Toms Gully Block Model – Isometric View Showing Resource Classifications (2021)

#### (i) Quest 29

A single block model was created by Cube with dimensions extended to fully cover all of the Quest 29 resource areas. The model parameters were optimised for data spacing, volume fill and planning purposes. These parameters were the primary considerations taken into account when selecting an appropriate estimation block size. Ordinary Kriging (OK) estimation method was used to estimate gold into the 3D block model for the 2021 MRE. Inverse distance to the power of two (ID2) was included in the grade interpolation runs as a check estimate or alternate to reporting block grades where gold grades provided better representation of mean composite grade data than OK block grades.



Figure 1-7 Q29 Block Model - Isometric View Showing Resource Classifications and Hole Types (2021)

#### (i) Mt Bundy Mineral Resource Estimate

Cube has classified and reported the resources in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). Refer to each individual MRE report listed as DFS Appendix 2A, 2B and 2C containing all criteria listed in Table 1 of the 2012 JORC Code. Table 1-6 below provides a summary of the In-situ Resources calculated for the Mt Bundy Project, for selected cut-off grades:

Deposit Resources	0.1.15	Indicated		Inferred			ALL Resources			
	Cut-off Grade (g/t)	Tonnes	Grade	Cont. Metal	Tonnes	Grade	Cont. Metal	Tonnes	Grade	Cont. Metal
		(Mt)	(g/t Au)	(Koz Au)	(Mt)	(g/t Au)	(Koz Au)	(Mt)	(g/t Au)	(Koz Au)
Rustlers Roost	0.3	63.4	0.8	1,533	28.5	0.5	490	91.9	0.7	2,023
Toms Gully	3.0	2.3	6.3	459	0.3	6.1	55	2.5	6.3	514
Quest 29	0.55	8.3	1.0	261	5.9	1.1	207	14.2	1.0	468
Total	Total	73	0.9	2,221	36	0.7	785	109	0.9	3,006

Table 1-6 Summary of In-situ Mineral Resource Estimates for Mt Bundy Project (Dec 2021)

The Mt Bundy Gold Project geology and resources are discussed in more detail in chapter 2 of the DFS report.

#### 1.4 Mineral Processing and Metallurgical Testing

The Mt Bundy project ore sources have undergone substantial metallurgical testwork programs over the years by the various project owners. In 2006 then owner Valencia Ventures Inc. completed a feasibility study with GBM, to develop the Rustlers Roost open pit mine only to be halted due to financial difficulties. In 2013 then ASX listed Primary Gold conducted a feasibility study to reopen the Toms Gully underground mine, however changes in environmental approval requirements and subsequent delays left project funding in limbo.

Primary Gold has utilised the valuable information gained from the previous studies and testwork to help steer the direction of both the 2021 PFS and now 2023 DFS. The following summary provides detail on the historical metallurgical testwork and current DFS testwork conducted in support of the project development.

#### **1.4.1 Previous Metallurgical Testwork**

#### (i) 2006 GBM Feasibility Study

A series of testwork was commissioned for the GBM Mt Bundy Feasibility Study focusing on the treatment of Rustlers Roost primary ore. The testwork was completed at two locations – Falcon Concentrators (British Columbia, Canada) and SGS Lakefield (Ontario, Canada). Early in the program a significant process improvement was identified. The change involved performing a centrifugal pre-concentration stage prior to the kerosene pretreatment and RIL circuits. This pre-concentration stage allowed rejection of 70-80% of the ore mass, while maintaining high (+90%) gold recoveries treating only the bulk gravity concentrate.

The results from the GBM metallurgical testwork program estimated average overall plant gold recovery of 83% based on the flowsheet with comminution circuit grindsize p80 70um, bulk gravity concentration of cyclone overflow, passivation stage using Kerosene and gravity concentrate treatment with Resin-In-Leach (RIL).

The 2006 GBM study showed the potential to improve overall gold recovery by increasing the gravity recoverable gold via high mass yield centrifugal concentration. It also demonstrated how successful passivation of the preg-robber could be achieved using Kerosene as an effective blanking agent. Refer to DFS chapter 3 section 3.1 for further detail on the GBM study testwork.

#### (i) 2013 Toms Gully Feasibility Study

Primary Gold Ltd completed a feasibility study in 2013 to restart the mine as an underground operation, with ore to be treated at a refurbished Toms Gully processing plant. Independent Metallurgical Operations Pty Ltd (IMO) was engaged by Primary Gold to carry out the feasibility work to determine the treatment requirements for Tom's Gully ore, and assess the inclusion of gravity concentration and the potential to increase the plant throughput up to 350,000 tpa (IMO 2013).

The results of the study demonstrated that a flotation concentrate up to 30% by mass, could be produced containing 90% of the gold. The combined results from flotation and gravity tests at 75um grind are shown in the table below:

Sample	P80 (um)	Feed Grade	Flotat	Tail Grade (g/t)			
Sample	P80 (um)	(g/t)	Mass Recovery	Grade (g/t)	Au Recovery	Tall Grade (g/t)	
Block 1_Comp	75	10.90	28.3%	35.70	92.7%	1.13	
Block 2_Comp	75	6.25	29.5%	20.00	94.3%	0.51	

Table 1-7 Combined Bulk Gravity/Flotation Con. Block 1 & 2 Composites

From the IMO report, various scenarios were considered for the Toms Gully process flow sheet. Scenario option 4 was selected as preferred, which included gravity concentration and recovery, flotation and intensive leaching of the float concentrate. A summary of the calculated gold recoveries from the Toms Gully processing plant flowsheet with the inclusion of a gravity circuit is shown in the table below, with overall extraction rate of 88%:

UNIT OPERATION	STREAM	PARTICLE SIZE	MASS F	RECOVERY	Au RECOVERY		
UNIT OPERATION	STREAM	(um)	UNIT	OVERALL	UNIT	OVERALL	
Gravity	Con	75	0.1%	0.1%	52.9%	52.9%	
Gravity	Tail	75	99.9%	99.9%	47.1%	47.1%	
	Con	75	20.7%	20.7%	84.3%	39.7%	
Flotation	Tail	75	79.3%	79.3%	15.7%	7.4%	
CIL	Float Tail	75	-	-	71.3%	5.3%	
latence Leest	Gravity Con	75	-	-	98.0%	51.8%	
Intense Leach	Float Con	12			92.0%	36.5%	
	-	Final Tail				11.6%	
		Overall Extract	ion			88.4%	

Table 1-8 Option 4 - Tom's Gully Recovery Breakdown Including Gravity and Intense Leach of Float Con.

Refer to chapter 3, section 3.2 of the DFS report for further detail on the Toms Gully testwork.

#### (i) 2021 GRES Pre-Feasibility Study

The 2021 metallurgical testwork program focussed on gathering additional information on both comminution characteristics and leach performance of Rustlers Roost and Quest 29 ores in support of the GRES prefeasibility study. The leach testwork programs were designed, with consideration of the results from historical programs, to examine key parameters namely: grind size; blanking & cyanide reagent addition and leach residence time, to improve on gold recovery performance and process economics.

In consultation with the PGL Geology team, considerable effort was made to select representative samples for Rustlers Roost and Quest 29 metallurgical testwork. Drill holes were selected to provide relevant ore grade intervals and broad spatial locations within the optimised pit shell, samples were made from the intervals chosen to meet grade and lithology requirements, representative of the orebody.

#### **Rustlers Roost**

A comprehensive comminution testwork program was conducted on Rustlers Roost ore including:

- SMC testwork, performed on drill hole samples representing different areas across the ore body.
- Bond ball and rod mill index and abrasion index testwork.
- HPGR testwork was conducted on a bulk composite sample, that combined all the areas covered by the SMC testing.

The 2021 leach testwork focused on optimising the basic flowsheet proposed in the GRES prefeasibility study. In addition to this, testwork was also conducted examining a high mass yield gravity flowsheet, to assess the effect of this method on overall recovery. The testwork results using the optimal blanking conditions of greater than 2,000g/t diesel for both the standard and high yield gravity flowsheets are summarised in Table 1-9 below:

		TEST CC	ONDITIONS			TEST R	ESULTS	
СОМР	No. of TEST	GRAVITY METHOD	BLANKING AGENT (g/t)	AVE. BLANKING TIME (h)	GRAVITY EXTN %	TOTAL EXTN %	AVE. RESIDUE GRADE (g/t)	AVE. HEAD GRADE (g/t)
Summary of Leach Tests wit	h Standard (	Gravity Recover	ry Flowsheet &	Blanking Dosa	ge >2,000g/t			
	2	Standard	2000	12	39.2	84.1	0.15	0.91
RR_Fresh (p80_75um)	8	Standard	2500	10.5	46.2	84.0	0.16	1.02
	3	Standard	>3000	12	35.1	85.6	0.13	0.89
AVERAGE					40.2	84.6	0.15	0.94
Summary of Leach Tests wit	h High Yield	Gravity Recove	ery Flowsheet &	& Blanking Dosa	age 2,500g/t	-		-
RR_Fresh (p80_75um)	1	High Yield	2500	12	34.5	85.5	0.12	0.79
RR_Fresh (p80_90um)	1	High Yield	2500	12	47.2	83.9	0.10	0.62
RR_Fresh (p80_106um)	2	High Yield	2500	12	47.1	83.4	0.11	0.69
AVERAGE					42.9	84.3	0.11	0.70

Table 1-9 2021 Results Summary, RR Fresh Ore Leach Testwork

The results showed that the standard gravity flowsheet at grind p80 75um, was achieving average recovery and tail grades of 84.6% and 0.15g/t respectively, for an average head grade of 0.94g/t. The high yield gravity flowsheet for p80 75um, achieved 85.5% recovery and 0.12g/t tail grade for a lower head grade of 0.79g/t. The

high yield gravity flowsheet results were very encouraging, showing similar or better residue grades and recovery results observed for coarser grind size p80's of 90um and 106um.

#### Quest 29

The 2021 Quest 29 leach testwork program focused on testing the amenability of the proposed Rustlers Roost process flowsheet for the treatment of Quest 29 ores. The testwork was conducted on three composites representing the different pits and oxidation states making up the Quest 29 resource.

The following composites were made up to represent the different areas of the Quest 29 resource, with average head grades aligned closely to the reserve grade:

- Q29\_2021 FRESH COMP-A1 (Mobile Hill & Koolpin North)
- Q29\_2021 FRESH COMP-A2 (Taipan & West Koolpin)
- Q29\_2021 OXIDE COMP-A3 (Koolpin North)

The leach testwork was conducted on each of the samples according to the established PFS treatment flowsheet for Rustlers Roost ore, the results are summarised in Table 1-10:

	TEST CONDITIONS						TEST RESULTS			
SAMPLE COMP.	ADS. METHOD	BLANKING DIESEL (g/t)	BLANKING TIME (h)	NaCN DOSAGE (%)	рН	GRAVITY EXTN %	TOTAL EXTN % 78% 0.22		HEAD GRADE (g/t)	
Q29 - Fresh A1	CIL – 30h	2500	12	0.03%	10.5	17%	78%	0.22	0.97	
Q29 - Fresh A2	CIL – 30h	2500	12	0.03%	10.5	7%	81%	0.30	1.60	
Q29 - Oxide A3	CIL – 30h	2500	12	0.03%	10.5	9%	94%	0.08	1.27	

Table 1-10 Quest 29 2021 Average Leach Test Results

The results showed good recovery for the A3 oxide sample at 94%, which was expected based on the historical information. The fresh ore sample recoveries average 78% for the A1 composite, and 81% for the A2 composite. The gravity recovery was quite low for all the Quest 29 samples tested.

It is likely that inadequate passivation of the preg-robber was a main contributing factor to the lower recoveries of the Quest 29 fresh ore samples. Further testwork examining blanking conditions and using high mass yield gravity concentration method will likely benefit overall recovery.

#### 1.4.2 2023 DFS Testwork

The 2022/23 testwork program was conducted to provide relevant data for the process plant design to support the definitive feasibility study work by Mintrex. The program was focused on Rustlers Roost ores which make up close to 87% of the LOM plant feed. The testwork programs were conducted by specialist third party facilities/laboratories/companies on behalf of PGL, utilising the representative sample composites summarised in chapter 3, section 4 of the DFS report. The results of the various testwork programs are detailed in chapter 3, section 5 of the DFS report with a summary provided below.

In consultation with the PGL Geology team, ore grade intervals were selected from available drill holes to provide relevant samples, representative of the Rustlers Roost orebody, suitable for metallurgical testwork requirements. Drill hole cross sections through the Rustlers Roost ore body were selected within the optimised pit shell. The samples selected for testing were based on spatial location around the existing open pit, by oxidation state and by ore grade.

#### (i) Variability Leach Testwork

Rustlers Roost variability leach testwork involved a selection of 5 sample composites of fresh ore, made up from drillholes in different spatial locations of the orebody. Leach tests were performed on each sample to examine any leach and recovery performance variability. Test conditions were according to the flowsheet detailed in DFS chapter 3, Figure 7-2, refer program A23012.

		TEST CONDITIONS						TEST RESULTS				
СОМР	TEST ID	BLANKING AGENT (g/t)	BLANKING TIME (h)	NaCN DOSAGE (%)	рН	GRAVITY EXTN %	TOTAL EXTN %	RESIDUE GRADE (g/t)	HEAD GRADE (g/t)			
RR_Fresh (Comp 1)	JR6891	2,500 Diesel	12	0.03	10.5	77.0	91.4	0.08	0.93			
RR_Fresh (Comp 2)	JR6893	2,500 Diesel	12	0.03	10.5	54.8	89.4	0.13	1.22			
RR_Fresh (Comp 3)	JR6895	2,500 Diesel	12	0.03	10.5	77.8	91.7	0.08	0.91			
RR_Fresh (Comp 4)	JR6897	2,500 Diesel	12	0.03	10.5	64.7	92.4	0.07	0.92			
RR_Fresh (Comp 5)	JR6899	2,500 Diesel	12	0.03	10.5	56.6	92.3	0.09	1.17			
AVERAGE						66.18	91.4	0.09	1.03			

Table 1-11 Results Summary, RR Variability Comps – 2,500 Blanking Dosage

The results showed very good recoveries across all samples, averaging 91.4% overall. Grade and recovery performance were reasonably consistent across all variability sample composites, with grades ranging from 1.22g/t (JR6893) to 0.91g/t (JR6895) and recoveries from 92.4% (JR6897) to 89.4% (JR6893). Results indicated minimal variability in metallurgical recovery performance within the Rustlers Roost fresh ore, supporting the application of an average recovery rate assumption aligned to the geology.

#### (i) Confirmation Leach Testwork

Rustlers Roost confirmation leach testwork program was designed around the high mass yield gravity flowsheet proposed in the DFS. The testwork was conducted to confirm the selection of p80 106um grind size and determine the optimal leach conditions for process design criteria. The testwork was conducted primarily on the Rustlers Roost fresh ore, with additional tests conducted on oxide and transitional sample composites to confirm recovery performance. The overall average results from the testwork program for the different Rustlers Roost ore oxidation states are summarised below:

Sample	Number of Tests	Ave. Gravity Recovery (%)	Ave. Overall Recovery (%)	Ave. Residue Grade (g/t)	Ave. Head Grade (g/t)	Ave. NaCN Cons. (kg/t)	Ave. Lime Cons. (kg/t)
RR_Fresh Ore	15	49.8	86.1	0.10	0.75	0.41	0.80
RR_Oxide/Trans Ore	4	33.2	91.2	0.06	0.62	0.37	1.12
	Table 1	12 Average L	and Test Beer				

Table 1-12 Average Leach Test Results – RR All Ore Types

The results from the 15 tests on Rustlers Roost fresh ore gave an overall recovery average of 86% and gravity recovery of 50%, from an average sample head grade of 0.75g/t and residue grade of 0.10g/t. The average sodium cyanide consumption rate was very low at 0.41kg/t and lime was also low 0.80kg/t. The average overall recovery for the Oxide and Transitional ores was 91%, from average sample head grade of 0.62 and with residue grade of 0.06g/t.

#### 1.4.1 Process Design Parameters

With consideration of the results from the DFS testwork program, the recommended process design criteria for use in the plant flowsheet, based on the gold leach recoveries observed, are summarised according to the following general criteria:

Test Condition	Parameter	r (Average)
Test condition	RR Fresh Ore	RR Oxide/Trans Ore
Grind p80 (um)	106	106
High Yield Gravity Mass %	8%	8%
Gravity Concentrate Re-grind p80 (um)	53	53
Gravity Concentrate Blanking Diesel (g/t)	>6,000	>6,000
Gravity Tail Blanking Diesel (g/t)	>2000	>1,500
Blanking Time (hr)	>8	>8
CIL NaCN Dosage (%)	0.03%	0.03%
CIL Residence Time (hr)	>12	>12

#### Table 1-13 DFS Optimal Leach Test Conditions

The proposed basic flowsheet for the treatment of Rustlers Roost ore from the testwork results is depicted in the Figure 1-8 below:



Figure 1-8 Rustlers Roost Proposed DFS Treatment Flowsheet

A conservative approach for forecasting the metallurgical recovery is recommended for the preparation of the life of mine production schedule and economic analysis of the project. The mining schedule will be designed to deliver ore to the RoM pad according to oxidation state, either Oxide/Transitional or Fresh ore. The RoM stockpiles will then be segregated and sub-stockpiled according to gold ore grade.

For Rustlers Roost Oxide and Transitional ore processing, a flat 91% recovery is proposed for all grade bins, except for cut-off grade which will use a more conservative 90% recovery rate. For Rustlers Roost Fresh ore processing, an average recovery rate for each grade bin is calculated based on a grade recovery curve. The grade recovery curve assumes a conservative average residue grade of 0.11g/t, with recovery capped at 90% for fresh ore grades above 1.10g/t, see figure below:

Based on the results, calculations and assumptions detailed above, the proposed stockpile grade bins and average recovery rates for Rustlers Roost ores are summarised in Table 1-14:

STOCKPILE GRADE BIN (g/t)	OXIDE/	TRANS	FRESH			
STOCKPILE GRADE BIN (g/t)	STOCKPILE	RECOVERY	STOCKPILE	RECOVERY		
>0.90	HG	91%	HG	90%		
>0.70<0.90	MG	91%	MG	86%		
>0.40<0.70	LG	91%	LG	81%		
<0.40	CUT-OFF	90%	CUT-OFF	75%		

Table 1-14 Rustlers Roost, LOM Stockpile Grade & Recovery Estimation

For purposes of life of mine production schedule and economic analysis, conservative recovery rates have been assumed for Toms Gully and Quest 29 satellite operations. The Toms Gully underground operations will assume a flat 85% recovery rate considering the results from the 2013 feasibility study (refer DFS chapter 3, section 3.2). Quest 29 will assume average recovery rates of 90% for oxide and 80% for fresh ores based on the previous testwork (refer DFS chapter 3, section 3.1.3).

#### **1.4.2 Recommendations**

The following recommendations are made for additional testwork and analysis as the project moves into detailed design phase:

- Optimisation testwork, to further examine the optimum blanking dosages for both the gravity concentrate and gravity tail preconditioning:
  - Gravity concentrate should be tested with blanking dosage below 6,000g/t diesel, as this dosage seemed adequate for acceptable recoveries, refer test JR7182 (DFS chapter 3, section 5.3.1), and could potentially reduce reagent consumption.

- Gravity tail blanking dosages between 1,500g/t and 2,000g/t diesel should be examined, there is likely an optimal target dosage rate that can reduce diesel reagent consumption.
- Conduct leach testwork based on expected ore blends into the plant as per the production schedule, to examine leaching behaviour and reagent consumption. The leach testwork should trial various ore blends based on oxidation state and aligned to expected feed blends:
  - Sample composites should be made accordingly; quarterly composite samples for Year 1, yearly composite samples for Years 2, 3 and one composite sample representing Year 4+.
- Toms Gully confirmation testwork to evaluate the historical testwork and flowsheet selection. This should be conducted once new drilling samples are available. The ore samples should be made up to include waste from the drill core either side of the ore intervals, to be representative of expected mining dilution.
- Quest 29 confirmation testwork to further examine variability in metallurgical recovery performance for the different Quest 29 pits. The leach testwork should trial differing conditions and adjust parameters to define an optimal treatment flowsheet for Quest 29 ores. Conduct SMC testwork to further examine comminution characteristics.

#### 1.5 Open Pit Mining

Primary Gold is in the process of developing the Rustlers Roost, Annie Okaley and Quest 29 open pit gold projects (combined as the Mt Bundy Gold Project) in the Northern Territory (NT). Quest 29 is located 11 km to the south-east of Rustlers Roost via a private haul road. Orelogy Consulting Pty Ltd (Orelogy) completed a Prefeasibility Study (PFS) for the mining component of this project in 2021. Orelogy completed an updated reserve estimation for the open pits in 2022 and Definitive Feasibility Study (DFS) budget costing for the open pit mining development in July 2023.

The Ore Reserve for the Project is based on a 5 Mtpa CIL gold plant, to be located adjacent to Rustlers Roost open pit mine.

#### 1.5.1 Mining Method

Conventional open pit mining has been adopted as the preferred mining method as:

- The ore presents near surface;
- There is space to construct waste dumps;
- It is likely to be socially acceptable;
- It is expected, with a high chance of success, to generate the best value.

The operation is planned to be a wet-hire, owner operator model, where the owner will manage and operate the mine and the contractor will supply and maintain the mining fleet. The key mining activities are:

- Clearing of vegetation and topsoil stripping;
- Haul road construction;
- Grade control;
- Waste rock mining;
- Ore mining, stockpiling, rehandling and crusher feeding;
- Pit dewatering;
- TSF Construction;
- Rehabilitation.

Vegetation will be cleared and grubbed prior to topsoil stripping. Topsoil will be stockpiled around the open pit and later used to cover final landforms for revegetation. Grade control drilling is contracted to a suitable drilling contractor and samples will be either assayed in the site laboratory or sent to suitable off-site laboratory.

Mine operations at both projects will utilise conventional truck and shovel open pit mining methods and technologies proven at other locations throughout the region with ore hauled from Quest 29 to Rustlers via a purpose built haul road.

A 10 metre blast bench height mined in four 2.5 metres flitches was established based on the block model height of 5 metres and was justified to help minimise dilution and to match the scale of the proposed drill and loading fleet. It also allowed for two 10 m high benches to be established between berms to provide a 20 metre high batter slope. However, it is noted that the ore body is massive in nature and has the potential to be mined in bulk as compared to a more selective method. Hence, the alternative mining method considered in the updated cost estimate is based on a 15 metre blast bench mined in three 5 m flitches.

Mining costs were established from first principles based on production rates, required number of hours with wet-hire rates for fleet equipment from the preferred contractor following a RFQ process.

#### 1.5.2 Mine Design

The pit designs are in accordance with the optimisation shell selection process outlined in chapter 4, section 4 of the DFS report. The pit slope design parameters (also utilised in the optimisation process) are based on the guidelines from the geotechnical assessment by Peter O'Bryan and Associates. The designs for ramps, switchbacks and road widths were based on the selected mine fleet equipment, allowing for safe passing of trucks, wall side drainage and pit side bunding.

Two mine design scenarios were considered in the DFS, the 'Reserve Case' and 'LOM Case'. These are summarised as follows:

#### (i) DFS Reserve Case

The Reserve Case scenario utilises whittle optimisations for the open pits conducted using A\$2,350/oz gold price. The optimisation results and methodologies for each of the separate mining areas are detailed in chapter 4, section 4 of the DFS report. The mine designs were all completed by Orelogy, with the design criteria, scheduling and costing detailed in chapter 4, sections 5, 6 and 7 of the DFS report.

The Reserve Case metrics are summarised as follows:

• Mining Inventory includes for all indicated and inferred ounces within the A\$2,350/oz shell pit designs, mining physicals summarised in Table 1-15 below:

Unit	Total
Ore (kt)	53,556
Au Grade (g/t)	0.81
% Ore Mined	98%
Ore (kt)	1,260
Au Grade (g/t)	0.7
% Ore Mined	2%
Ore (kt)	54,816
Au Grade (g/t)	0.81
Ore (kt)	82,654
W:O	1.5
	Ore (kt) Au Grade (g/t) % Ore Mined Ore (kt) Au Grade (g/t) % Ore Mined Ore (kt) Au Grade (g/t) Ore (kt)

Table 1-15 Open Pit – Reserve Case Inventory Summary

- 5.0Mtpa process plant throughput, for ~11yr mine life
- Total ore tonnes of 54.8Mt and average grade of 0.81g/t for 1.42Moz contained
- Average mining cost is \$4.09/TMM
- Average processing cost is \$20.66/OreT, (\$18.62/t Processing, \$2.04/t G&A)
- Total cashflow from Open Pits, using a simplified cost model, at Gold Price A\$2,750/oz, is estimated at \$1,069M based on cost assumptions detailed in Chapter 4, section 9 of the DFS report.

The Rustlers Roost Reserve pit design extends to a depth of approx. 230m below surface, Annie Okaley pit is approximately 105m depth. The Quest 29 Reserve design pits are relatively shallow, the largest being the Zamu pit which extends to approximately 65m below surface.

The 'Reserve Case' final pit designs are shown in the below isometric 3D images:



Figure 1-9 Annie Okaley Reserve Final Pit Design



Figure 1-10 Rustler Roost Reserve Final Pit Design



Figure 1-11 Quest 29 Reserve Final Pit Designs

#### (ii) DFS LOM Case

The extended LOM Case scenario uses whittle optimisations for the open pits conducted using A\$2,750/oz gold price. The larger design incorporates all the Orelogy pit stage designs, plus a final stage designed to capture the additional ore. All other optimisation inputs and cost assumptions are as per the Orelogy model detailed in chapter 4, sections 5, 6 and 7 of the DFS report. The optimisation results for the larger Rustlers Roost and Quest 29 pits are detailed in FS report chapter 4, section 8. The production schedule includes for all indicated and inferred ounces within the expanded A\$2,750/oz pit designs for Rustlers Roost and Quest 29. The Annie Okaley pit was left as per the Base Case design, this was due to its close proximity to the tenement boundary.

The LOM Case scenario details are summarised as follows:

Inventory includes for all indicated and inferred ounces within the A\$2,750/oz shell pit designs, mining
physicals summarised in Table 1-16 below:

ITEM	Unit	Total
	Ore (kt)	58,202
Indicated	Au Grade (g/t)	0.80
	% Ore Mined	90%
	Ore (kt)	6,189
Inferred	Au Grade (g/t)	0.67
	% Ore Mined	10%
TOTAL ORE	Ore (kt)	64,391
TOTAL ORE	Au Grade (g/t)	0.79
Total Waste	Ore (kt)	117,711
Strip Ratio	W:O	1.8

Table 1-16 Open Pit – LOM Case Inventory Summary

- 5.3Mtpa process plant throughput for ~12yr mine life
- Total ore tonnes of 64.4Mt and average grade of 0.79g/t for 1.63Moz contained
- Average mining cost is \$3.96/TMM,
- Average processing cost is \$20.11/OreT, (\$18.12/t Processing, \$1.99/t G&A)
- Total cashflow from Open Pits using a simplified cost model, at Gold Price A\$2,750/oz, is estimated at \$1,434M based on cost assumptions detailed in chapter 4, section 9 of the DFS report.

The Rustlers Roost LOM pit design extends to a depth of approx. 250m below surface. The largest of the Quest 29 LOM pit designs is 82m depth.

The 'LOM Case' final pit designs are shown in the below isometric 3D images:



Figure 1-12 Rustlers Roost LOM Final Pit Design



Figure 1-13 Quest 29 LOM Final Pit Designs

#### 1.5.3 Open Pit Mining Conclusions, Risks and Recommendations

Considering the significant increase in gold price from the 2022 open pit reserve (conducted at A\$2,350/oz), Primary Gold (PGL) recommends proceeding with the LOM case larger open pit designs. The designs were conducted using A\$2,750/oz gold price, with optimisation inputs and cost assumptions based on the Orelogy data, which remain conservative considering the current spot gold price is around A\$3100/oz.

The following risks and recommendations have been identified and highlighted for mitigation, when moving forward with project development.

#### (i) Execution Risk

The key risks identified with the open pit operations are summarised as follows:

- There will always be a risk in any mining operation that ore delivered to the process plant will not be of the grade or tonnage as planned. This will usually be a result of:
  - Resource model not in-line with orebody;
  - Incorrect estimation of ore loss and/or dilution; or
  - Planned mining productivities not achieved.

These risks have been and/or will be mitigated respectively by the following activities.

- Strict grade control in advance of mining;
- The DFS approach to ore loss and dilution is considered realistic;
- The mining schedule is considered achievable;
- Geotechnical risk associated with open pit workings was identified as this is always a risk associated with open pit workings.

The key risks identified are associated with:

- Uncertainty in the location of unfavourable geotechnical structures and / or the oxide / fresh boundary;
- Elevated wall pore pressures reducing slope stability.

These risks will be mitigated through further geotechnical review and assessment carried out prior to mining, plus the staged pit development approach and the planned implementation of a dewatering borefield during site establishment.

- There is risk associated with project start-up, and the potential of not meeting mining ramp-up requirements. The effective establishment of site access will be crucial.
- Health and safety risks associated with on-going mining operations will be mitigated though the implementation of industry standard procedures and protocols to minimise both the potential for incidents to occur and limit the severity of any incidents.

#### (ii) Cost Risk

The Risk in the mining cost estimation is generally a result of:

- Under-estimating costs; and/or
- Over-estimating productivity.

Orelogy have developed cost inputs based on up to date cost information from in-country suppliers, and their own experience and cost data from recent projects. They consider the underlying assumptions reasonable and the resulting costs to be with DFS levels of confidence. Key cost drivers such as fuel price, personnel costs etc. will be subject to the usual market fluctuations that cannot be predicted.

#### (iii) Recommendations

Given the increase in processing throughput to 5 Mtpa and possibility of higher throughputs, additional work is recommended in matching/improving the mining fleet and optimizing the overall schedule. At present, two 150t class excavators are working for a 5 year period, with one of them being retired or two smaller excavators and trucks being evaluated. This does provide operational flexibility, but costs may be able to be further optimized by negotiating better hire rates or considering an owner operator model for the life of the project.

Other areas will include:

- Updating equipment pricing terms closer to commencement decision.
- Engaging with mining contractors on an RFQ/tendering basis to enable competition.
- Update manning schedule and associated costs.
- Update the overall mine design to deal with the larger shells and potential for future cut-backs
- Ensure processing throughputs and cost structures are valid.
- Revise waste dump design in conjunction with TSF design. At present, the capacity of the waste dump is very close to the amount of waste being produced.

#### 1.6 Underground Mining

The Toms Gully underground mine is located within the Mt Bundy project area approximately 13km north-east of Rustlers Roost via a private haul road. Orelogy Consulting Pty Ltd (Orelogy) was requested to carry out an updated ore reserve for Toms Gully, with mining schedule and cost estimation for the underground mining component of the project. The information in this report provides a summary of the underground mining method, optimisation, design and scheduling undertaken by Orelogy as part of the Mt Bundy Gold Project and has been incorporated into the 2023 Definitive Feasibility Study (DFS).

The open pit and underground ores for the Mt Bundy Project are to be processed via a 5 Mtpa CIL gold treatment plant to be constructed at Rustlers Roost. The processing plant includes a separate sub-circuit with flotation, and ultrafine grinding for the treatment of Toms Gully sulphide ores.

#### 1.6.1 Mining Method

The Toms Gully underground has been modelled using a contractor mining methodology, this was selected based on:

- Lower capital costs prior to ore production and revenue.
- Expected mine life is in the order of 4 years and would not justify the purchase and sourcing of equipment and personnel as an owner operator.
- Current market environment for skilled personnel, lead times on equipment, and skillsets to set up and establish owner operator mining equipment, personnel, systems, and processes.

Ore will be hauled to the surface, stockpiled, then rehandled and hauled with surface trucks to the Rustlers Roost processing plant.

The planned mining method is room and pillar stoping, which is appropriate for the flat dipping ore body. This mining method has been selected in all mining studies to date and there is no new information or mining methods that are considered appropriate.

The factors influencing the mining method used are:

- Narrow ore width with an average of 1.6 m.
- The ore body dips at less than 10° in the northern part of the ore body and then flattens out to a near horizontal dip in the southern part of the orebody.
- The Bord and Pillar layout is based on 16 m centres.
- Bords are 4.5 m x 4.2 m developed with Resue mining method.
- The ore in the pillars are recovered and 48 m<sup>2</sup> rhombic (6 m x 8 m) pillars remaining as support. This is an increase from the geotechnical guidance and is described in Section 7.3 below.

#### 1.6.2 Underground Optimisation

#### (i) Methodology and Approach

Underground stope optimisation has been undertaken for this study using Deswik Stope Optimiser (SO). The approach taken is to undertake preliminary optimisations across the entire TG resource model and range the key optimisation inputs to conduct sensitivity analysis on the resultant inventories. From the sensitivity analysis optimisation inputs will be selected to be used in the final optimisation process.

The key optimisation inputs that have been identified for TG are the cut off grade (COG) and the minimum mining width (MMW).

The MMW is a key input given the narrow and high grade nature of the TG orebody and the lack of low grade ore on the periphery of the orebody.

Revenue factors were calculated using a A\$2,350/oz gold price.

#### (i) Optimisation Scenarios and Parameters

The mine design scenarios completed for this study are outlined in Table 1-17 below and shown in Figure 1-14 and **Error! Reference source not found.** for the Reserve design. The LOM mine design is the same for S cenario 1A and 1B.

	Scenario	Resource Category
1A	Life of Mine (LOM)	LOM - MII
1B	Life of Mine (LOM) + Re-processing existing tails (TSF1)	LOM - MII
2	Reserves	Reserves - MI

Table 1-17 Toms Gully Design Scenarios

Key points in the design scenarios include:

- Mine design for both scenarios are essentially the same.
- Scenario 2 (Reserves) does not extend to the south as far as Scenario 1 (LOM) and does not include a stoping area on the north west.

The final optimisations that inform the mine design are based on the following parameters:

- COG of 3.6 g/t Au.
- MMW of 1.0 meters plus 0.6m dilution skins (0.3m hanging wall, 0.3m footwall).

The final Toms Gully Reserve mine design is presented in Figure 1-14 and Error! Reference source not f ound. below:



Figure 1-14 TG Mine Design – Scenario 2 (Reserves), Side View Looking West (Activity)



Figure 1-15 TG Mine Design - Reserve, Plan View (Grade)

#### 1.6.3 Mining Costs and Scheduling

#### (i) Scheduling Strategy and Constraints

The overall scheduling strategy applied to Toms Gully within the constraints of the selected mining method is to:

• Maximise the material movements within the constraints of the existing ventilation infrastructure – to minimise capital expense.

With the above strategy in mind and the sequence constraints and drivers as outlined in DFS Chapter 5, section 9 above the key scheduling criteria applied into the schedule scenarios is:

• Limit the fleet to the maximum ventilation capacity as detailed in DFS chapter, section 12. The maximum ventilation capacity is constrained by maintaining velocity of 6m/s or less in the eastern fresh air intake decline. The maximum ventilation capacity is approximately 190m3/s to maintain a maximum 6m/s velocity in the fresh air intake decline. This restricts the fleet to 4 jumbos and 2 trucks.

The schedules are driven by:

- The task and activity rates per DFS chapter 5, section 10.2.
- Time taken to dewater the underground and rehab the existing workings

Initial resourcing and scheduling optimisation and sensitivities were completed to understand the mining physicals and fleet requirements driven by the mine design and sequence. It was found that for:

• Jumbos – development could be achieved sustainably with 5 jumbos. However this was above the capacity of the ventilation system. The jumbo resource was constrained to a maximum of 4 jumbos.

To increase the ventilation capacity to allow a mining fleet in excess of 4 jumbos additional fresh air and return air rises or access would be required to maintain the air velocities within guidelines. Given the short LOM and the additional capital cost this was not considered an acceptable strategy.

#### (i) Personnel Rosters

Toms Gully will operate as a 24/7 FIFO operation operating both day and nightshift 12-hour shifts. Rosters have been assigned to the different work groups to generate manning, flights, and accommodation costs. Rosters assigned are:

- Primary Gold management and technical staff 8/6 D/S only, except for the Geology technicians who will work 14/7 roster D/S and N/S.
- Underground Contractor Underground mining:
  - Management and administration 8/6 D/S only.
  - $\circ$  Supervisors 8/6 D/S and N/S.
  - Operators 14/7 D/S and N/S except for the grader operator and cabolt operator who will work 14/14 D/S and 14/14 N/S (opposite shifts).
  - $\circ$  Maintenance 14/7 D/S and N/S

#### (ii) Costs

The underground mining capital and operating cost estimates were developed by Orelogy from a range of, sources including:

- Costs derived from the Mt Bundy DFS.
- Quotes and budget pricing obtained from Hanking.
- Request For Budget Pricing (RFBP) issued and received by Orelogy.
- Orelogy cost database.

Budget pricing was obtained for the following major components:

- TSF1 tailings retreatment.
- Open pit dewatering.

The TSF1 tailings retreatment and TG open pit dewatering represent large individual cost components that are performed by specialist contractors, personnel, and equipment. Budget pricing from suppliers was requested and received for these components.

The mining cost estimate conducted is considered to be of appropriate accuracy for PFS. It is expected that Primary Gold will tender for the underground mining contract closer to the scheduled commencement date.

#### 1.6.4 Underground Mining Conclusions, Risks and Recommendations

The Toms Gully underground resource can sustain an economic and technically feasible underground mine and a JORC compliant Ore Reserve. There is potential to increase the ore reserve through converting more inferred ore into indicated with additional drilling of the peripheral inventory in the north and north-west. The addition of retreatment of the TG TSF1 in Scenario 1b adds significant value, and should be pursued once in production due to its relative high grade and low mining cost. The inclusion of the 'Crown Pillar' extraction at the end of mining will also add additional value for relatively low risk.

#### (i) Risks

Key risks to be considered in future technical work include:

- Entry and rehab of old workings Cost, time, and technical risk exists given the unknown conditions that may be encountered.
  - Action: Scheduling rates and costs to be conservative for the rehab component of the initial development.
- Stope stability Stability of the room and pillar stoping spans will pose a potential significant risk.
  - o Action: Mine designs and schedules to be conservative incorporating barrier pillars.
  - Action: Review what additional geotechnical work may be required for further stages of study.

#### (ii) Opportunities

Peripheral inventory in the north and north-west – Ore in the north in close proximity to the open pit and the existing underground accesses and in the north-west where the orebody dip increases has not been included in the designs. This represents a minor opportunity to increase inventory that requires detailed costing, design and potentially a higher COG to understand the economics.

• Action: Future studies or resource model updates to consider the effort/reward of detailed design and analysis to potentially add these areas to the LOM and/or reserves.

#### 1.7 Reserves

The following summary for the Mt Bundy Open Pit and Underground ore reserves is quoted from the Orelogy Consulting 'Mt Bundy Gold Project Rustlers Roost and Quest 29 Gold Deposits, Ore Reserve Estimate Statement' (Mar, 2022), and Orelogy Consulting 'Toms Gully Underground Reserve Study' (Oct 2023). The full report documents are included in Appendix 4B and 5A.

#### 1.7.1 2022 Open Pit Ore Reserves

Orelogy Consulting Pty Ltd was responsible for the mining component of the Mt Bundy Gold Project Pre-Feasibility Study. As a result, Orelogy have developed an Ore Reserve Estimate for the Project as at 11th March 2022. Orelogy has developed the Ore Reserve in accordance with the guidelines of the JORC Code 2012.

Mineral Resources were converted to Ore Reserves in line with the material classifications which reflect the level of confidence within the resource estimate. The Ore Reserve reflects that portion of the Mineral Resource which can be economically extracted by open pit mining methods. The Ore Reserve considers the modifying factors and other parameters outlined in the preceding sections of this report and detailed in the following sections, including but not limited to the mining, metallurgical, social, environmental, statutory and financial aspects of the project. The Ore Reserve includes an allowance for mining dilution and ore loss. Orelogy developed open pit mining models for each deposit with dilution averaging 2.4% (on a block by block basis) and an average ore loss of 3.3% for Q29. As the Rustlers Roost model used an LUC estimation method, dilution is already modelled and a 1.5% ore loss was included.

In line with the JORC 2012 guidelines, the Proven Ore Reserve estimate is based on mineral resources classified as Measured and the Probable Ore Reserve is based on Indicated classified mineral resources. The 2022 Open Pit Ore Reserve is summarised in Table 1-18 below:

	C		Probable		Waste	Total	Strip
Deposit Resources	Cut-off Grade (g/t)	Tonnes	Grade	Cont. Metal	Tonnes	Tonnes	Ratio
	(6/ 4/	(Mt)	(g/t Au)	(Moz Au)	(Mt)	(Mt)	W:O
Rustlers Roost	0.32	47.8	0.8	1.22	65.0	112.7	1.4
Annie Okaley	0.32	0.7	1	0.02	6.9	7.6	9.8
Quest 29	0.35	5.1	0.9	0.14	17.4	22.5	3.4
Total	Total	53.6	0.8	1.39	89.2	142.8	1.7

Table 1-18 Open Pit Ore Reserve Summary

#### 1.7.2 2023 Underground Ore Reserve

Orelogy have developed an Ore Reserve estimate for Toms Gully in accordance with the guidelines of the JORC Code 2012. The reported Mineral Resource estimate is inclusive of the resources converted to Ore Reserves. The Toms Gully Ore Reserve as reported is summarised in Table 1-19 below. The Ore Reserve consists entirely of Probable reserves from within the Indicated Mineral Resource Category. Appropriate rounding has been applied to the summary.

	0.1.11		Proved	Proved Prob				Total Reserve		
Deposit Resources	Cut-off Grade	Tonnes	Grade	Cont. Metal	Tonnes	Grade	Cont. Metal	Tonnes	Grade	Cont. Metal
	(g/t)	(kt)	(g/t Au)	(Koz Au)	(kt)	(g/t Au)	(Koz Au)	(kt)	(g/t Au)	(Koz Au)
Toms Gully	3.6	0	0.0	0	1,435	5.4	248	1,435	5.4	248
	Tal	blo 1 10 T	ome Cull	V Oro Dog	orvo Sun	moriu				

Table 1-19 Toms Gully Ore Reserve Summary

The Toms Gully mine design and methodology, including ore loss and dilution are detailed in chapter 4 of the DFS report.

#### 1.8 Production Schedule

The combined Mt Bundy production schedule for the 'Reserve Case' and 'LOM Case' is summarised according to annual gold ounces produced and average head grade in the charts below:







#### Figure 1-17 LOM Case – Mt Bundy Ounce Production by Year & Head Grade

The production schedule for all deposits was guided by maximizing project value within the defined practical operating constraints. The key strategic considerations included:

- Prioritizing High Grade ore from Rustlers Roost pit to the mill and stockpiling low grade ore
- Minimizing capitalized pre-stripping costs
- Delaying startup of Toms Gully underground, allowing for ample time to dewater the mine and rehab the old workings

- Scheduling Quest 29 production to after Toms Gully reached production maturity, de-risking from having multiple mining areas starting simultaneously.
- Ensuring operability and safety in the schedule execution.

#### 1.9 Process Plant

The process plant consists of a primary circuit to treat 5 Mtpa of open pit ore material and a sub-circuit to treat 250 ktpa of underground ore, where material is combined to be treated in an organic blanking circuit. Due to the presence of carbonaceous material (preg-robbing) in the ore, diesel is used to as a reagent into this organic blanking circuit. Gold ore is then recovered via the conventional leaching and adsorption circuit. The plant layout design is shown in the 3D image below:



Figure 1-18 Rustlers Roost Process Plant, 3D Image, View Looking NE

The process plant comprises the following unit processes, for the detailed description of the process plant design refer to chapter 7 of the DFS report:

Primary Circuit (Rustler's Roost - 5 Mtpa):

- Primary Crushing circuit;
- Secondary Crushing circuit
- HPGR circuit,
- Stockpile reclaim,
- Ball milling, classification and gravity recovery circuit,
- Concentrate regrinding (using HIG Mill #1),
- Organic blanking circuit (uses Diesel) including pre-leach thickening,
- Leach and adsorption circuit,
- Elution, electrowinning and smelting, and
- Reagents area.

Sub-circuit (Tom's Gully – 250 Ktpa):

• Fine Ore Bin,

- Ball milling, classification and gravity recovery circuit,
- Flotation circuit,
- Concentrate regrinding (using HIG Mill #2)
- Organic blanking circuit (uses Diesel) of both flotation concentrate and tails,
- Leach and adsorption circuit (Primary Circuit)
- Elution, electrowinning and smelting. (Primary Circuit)

The key design criteria for the process plant are as follows:

- Crushing plant throughput rate of 750 tph (76% plant availability).
- Rustler's Roost Grinding circuit transfer P80 of 106 μm.
- Tom's Gully Grinding circuit transfer P80 of 75 μm.
- Rustler's Roost Wet Plant throughput of 625 tph (91.3% plant availability).
- Tom's Gully Wet Plant throughput of 35 tph (91.3% plant availability).

A simplified process flowsheet is shown in Figure 1-19 below with detailed flowsheet in Figure 1-20 on the following page:



Figure 1-19 Rustler Roost Plant, Simplified Process Flowsheet



Figure 1-20 Mount Bundy, Rustlers Roost Detailed Process Plant Flowsheet

#### 1.10 Project Infrastructure

There will be some mining related infrastructure and services required to be constructed to support the Mt Bundy Gold Project. Current nearby infrastructures are to support the largely commercial agricultural activities. The nearest major city to the project site is Darwin, about 100 km away, which is equipped with a port and a domestic and international airport. The following project infrastructure is proposed as part of the DFS to support the development:

#### i. Site Development

The gold project is located 100 km southeast of Darwin and is accessed via the sealed Arnhem highway, which runs between Humpty Doo and Jabiru. An existing unsealed and graded road runs the length from Arnhem highway to the Rustler's Roost open pit which will require upgrading to suit triple road trains. From there, about three kilometres of new unsealed and graded access road will be constructed to access the mining contractor's area and process plant.

#### ii. Camp Accommodation

A fully supported 200-man accommodation camp will be constructed approximately 16 km northeast of the process plant and can be accessed via the Arnhem highway. The camp will be operated by a catering and accommodation service provider on a long-term operating contract. The camp contractor will be responsible for all operations at the accommodation camp including catering, cleaning and maintenance activities.

#### iii. Power Supply

A gas power station will be constructed at the process plant by an independent power provider and is expected to be under a build own operate (BOO) agreement. The power station will utilise a dedicated natural gas pipeline constructed specifically for this power station, also expected to be constructed under a BOO agreement by an independent gas pipeline infrastructure provider.

#### iv. Tailings Storage Facility

The proposed Tailings Storage Facility is to be located at Rustlers Roost as per the approved EIS 2022 design submission by Knight Piesold. The embankment alignment is designed to take advantage of natural topography (ridge lines) to reduce the volume of embankment construction materials required. The TSF is designed to encapsulate the existing Annie's Dam during Stage 1 of operation. The design parameters adopted for the feasibility study are summarised in chapter 8 for the DFS report. The final TSF footprint was limited to provide a 50 m corridor between the downstream toe of the embankment and the site tenement boundary.

The Figure 1-21 below shows the general layout of key infrastructure at Rustlers Roost site:



Figure 1-21 Rustlers Roost Site Layout

#### 1.11 Project Implementation

The feasibility study for the Mt Bundy Gold Project is based on an EPCM execution strategy where the owner takes on the construction risk (and therefore no builders margin is incurred). A key focus of the implementation plan and feasibility study design is to minimise major construction period over the wet season.

The project implementation schedule Gantt chart is summarised in Figure 1-22 below. The schedule developed for the project will see the 5 Mtpa project commissioned in October 2025 based on an EPCM Contract commencement by November 2023. The schedule is considered aggressive in current market conditions.

TASK	2023		2024				2025			
	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4	Qtr. 1	Qtr. 2	Qtr. 3	Qtr. 4
Project Approvals										
Engineering & Drafting										
Procurement & Contracts										
Site Construction Earthworks										
Site Establishment										
Plant Buildings Construction										
Process Plant Works										
HV Power Supply										
Power Distribution										
TSF Construction										
Open pit mine development										
Commissioning and first gold pour										

Figure 1-22 Summarised Project Implementation Schedule

#### 1.12 Environmental Approvals and Permitting

#### 1.12.1 Introduction

Primary Gold (PGL) commenced the EIS approval process for Rustlers Roost and Quest 29 mine redevelopment in 2021. CDM Smith<sup>™</sup> were engaged to assist compiling the Draft EIS application which was submitted in October 2021 and the Supplementary EIS in September 2022. In April 2023 PGL received the final Assessment from the NT EPA and approval of the EIS by the Minister on 1st of June 2023.

PGL commenced the EIS process for Toms Gully prior to the Hanking takeover in 2018. In July 2018 a Supplementary EIS was prepared and submitted to the NT EPA. An Addendum to the Supplementary EIS was compiled in 2019 to address items raised around AMD (Acid Mine Drainage) and storage of waste rock, as well as existing and future tailings storage. As a compromise, the mine design was changed in the Addendum to allow for a new box-cut and decline, as well as turning the existing pit into a tailings storage facility (TSF) for both plant tailings and waste rock.

The Addendum and Supplementary EIS for Toms Gully was approved in 2020. However, it was realized that under the new mine plan a significant amount of minable reserve would be sterilized due to the in-pit TSF and requirements for a large barrier pillar, development did not progress any further.

The 2023 DFS mine design resolves the issues highlighted in the Addendum and Supplementary EIS for Toms Gully. By allowing for combined processing of Toms Gully ore at the Rustlers Roost process plant, the Toms Gully pit is no longer required to be used as a TSF, and the previous decline and portals can be accessed. The barrier pillar is no longer required enabling more ore to be accessed and mined, improving the economics. The Rustlers Roost processing plant will also consume the water produced from Toms Gully mine dewatering once in operation, removing the need to store and treat the water prior to discharge into Mt Bundy creek during the wet season.

Summaries of the approved Draft EIS for Rustlers Roost and Quest 29 redevelopment and Toms Gully Supplement EIS and Addendum supporting the development of the Mt Bundy Gold Project are provided in chapter 11 of the DFS report. The Draft EIS Executive Summary for the Rustlers Roost and Quest 29 opencut mine redevelopment, and Supplement EIS and Addendum for Toms Gully are included as Appendices 11A, 11B & 11C. The final NT EPA Assessment Reports for the Rustlers Roost, Quest 29 and Toms Gully EIS submission are also summarised and included in Appendices 11D & 11E.

#### **1.12.20ther Project Approvals**

Following the environmental approval, the Northern Territory Government requires mines to be permitted via a Mine Management Plan (MMP) submission through the mining section of the Department of Industry, Tourism and Trade (DITT). The Mt Bundy MMP has since been submitted to DITT in October 2023.

Other permitting is required after the MMP is approved (MMP approval is a prerequisite) such as:

- Waste Disposal Licence for operational dewatering of the pit, Department of Environment Parks and Water Security;
- Water Abstraction License for water extraction from pits and borefields, Department of Environment Parks and Water Security.
- NT Worksafe approval for safety management.

#### 1.13 Capital and Operating Costs

The information below provides a summary of the Capital Cost estimate and Operating Cost estimate compiled by Mintrex for the Mt Bundy Definitive Feasibility Study (DFS) and updated cost information received from vendors following the Mintrex data compilation. The Capital and Operating costs are detailed in chapter 12 of the DFS report.

#### 1.13.1 Capital Costs

A capital expenditure estimate (CAPEX) has been developed for the Mt Bundy Gold Project to an accuracy level of +/-15%. All costs are presented in AUD and any foreign quoted currencies are based on exchange rates at Q3 2023.

The final Development Capital budget for the Mt Bundy DFS, including all updates, is summarised in the table below and in chapter 12, section 2 of the DFS report.

CAPITAL COST AREA	TOTAL M\$		
MINE AREA INFRASTRUCTURE	2.5		
ROADS & ACCESS	3.6		
ACCOMODATION VILLAGE	20.5		
SITE INFRASTRUCTURE	22.9		
PROCESS PLANT	325.6		
CONSUMABLES & FIRST FILL	11.6		
OWNERS COSTS	7.5		
TOTAL	394*		
*INCLUDED CONTINGENCY	42.1		

Table 1-20 DFS Development Capital Estimate

The Development Capital cost estimates includes a total of A\$42.1M contingency to cover all major cost areas, as well as extra allowance for potential weather interruptions during construction.

The processing plant cost includes Engineering, Procurement, Construction & Management (EPCM basis) and all related direct costs required to design, procure and construct the processing plant upgrade. The indirect cost consists of temporary construction facilities, capital spares, borefield infrastructure, camp accommodation, access roads, first fills and mining contractor's cost.

Electrical capital costs have been estimated by BEC Engineering (BEC), included in the CAPEX and reported in this document.

The critical assumptions, clarifications and exclusions have been summarised for the CAPEX to:

- Exclude escalation of material supply and labour prices;
- Exclude currency exchange rate variations;
- Exclude freight rate variations and delivery schedule of internationally fabricated items;
- Exclude GST

Owner's cost and mining pre-production are provided by Primary Gold based on the mining schedule and staff onboarding requirements. For further detail on the capital cost build up refer to chapter 12, section 2 of the DFS report.

Quotes were received from a variety of sources for most mechanical equipment and required construction works in line with the accuracy of the estimate.

Quotes for supply of structural steel and platework were received from international fabricators and selected for the feasibility study. Budget quotations were received for the concrete construction works and the SMP installation works was built on first principles based on contractor rates.

Indirect costs were based on advice from Primary Gold, Mintrex calculations and allowances based on similar scale projects, BEC advised, as well as received quotes where required.

#### 1.13.20perating Costs

Operating costs are derived from a combination of Primary Gold's advised labour rates, Orelogy mining costs, processing design inputs including OMC simulated and calculated design consumptions from the design criteria, vendor quotes, and Mintrex's database of costs.

The following has been considered and compiled in the operating cost estimate:

- Plant Labour;
- Maintenance;
- Mobile Equipment;
- Power;
- Consumables; and
- Mining Operating Costs
- Site General & Administration.

As the Tom's Gully is treated as a sub-circuit, additional mobile equipment, general and administration are assumed not required for this operating estimate. Additional processing and maintenance labour, as well as maintenance, power and consumables specific to the Tom's Gully sub-circuit are included in the Tom's Gully operating cost estimate.

The final Operating Cost budget for the Mt Bundy DFS, for both the Reserve Case and LOM Case, is summarised in the table below and in chapter 12, section 3 of the DFS report.

PROJECT TOTAL	Unit	Reserve Case	LOM Case		
PHYSICALS					
Total OP Mining Ore Tonnes	Mt	54.82	64.39		
Head Grade	g/t	0.81	0.79		
Total UG Mining Ore Tonnes	Mt	1.43	1.95		
Head Grade	g/t	5.38	5.15		
Total Ore Tonnes	Mt	56.25	66.34		
Head Grade	g/t	0.92	0.92		
Ounces Produced	Moz	1.46	1.69		
Ave. Throughput Rate	Mtpa	5.04	5.30		
OPERATING UNIT COSTS					
Open Pit Mining	\$/OreT	10.8	11.3		
Underground Mining	\$/OreT	159.2	143.9		
Processing	\$/OreT	18.6	18.1		
Site G&A	\$/OreT	2.04	1.99		
Total	\$/OreT	35.2	35.4		

Table 1-21 OPEX Summary by Production Scenario

The difference observed in unit operating costs between the 2 scenarios, is largely due to the increase in the mining and processing physicals. The LOM Case includes larger pit designs for Rustlers Roost and Quest 29, which adds a further 10Mt of ore. The LOM Case Toms Gully schedule includes the addition of the inferred ore plus the 'Crown Pillar' extraction and TSF1 tailings processing, which adds a combined 0.5Mt of ore.

Overall the operating costs show a robust, economical project, that is comparable to other Australian gold mining projects of similar scale.

#### 1.14 Economic Analysis

Cashflow modelling has been prepared by Primary Gold (PGL). Cost and production data inputs have been prepared by Orelogy Consulting, Mintrex and compiled by PGL, on a monthly basis, using the capital and operating costs presented in this study. Financing options, hedging and associated costs whilst able to be accommodated in the financial model have not been included in the financial analysis of the Project.

All financial numbers are in Australian dollars and calculated on a pre-tax basis unless otherwise stated.

The financial analysis has been completed using the following key performance indicators:

- Pre-tax Project Free cashflow;
- Pre-tax Net Present Value (NPV) applying an 6% discount rate;
- Pre-tax Internal Rate of Return (IRR);
- Payback period;
- World Gold Council Non-GAAP metrics of Cash Cost (C1) and All In Sustaining Costs (AISC).

The cost and income drivers included in the cashflow model are outlined and defined in the DFS chapters 12 and 13. Costs have been derived using fixed and variable assumptions with reference to the life of mine (LOM) schedule.

The capital and operating cost accuracies are  $\pm 15\%$  and in accordance with expectations of a definitive feasibility study. Toms Gully operating costs have been compiled to an accuracy of  $\pm 25\%$ , due to availability of data and Toms Gully mine schedule only commencing from production year 2. It is expected the underground mining contract will go to tender 6 months prior to the planned mine schedule.

Vendor firm quotes, contracts, agreements, receipts, and other documentation are included in this study and provide support for the cost estimates. Contractors familiar with local labour conditions and labour productivity, specific project permit requirements, applicable regulations and schedule requirements, were consulted.

Two scenarios have been modelled, these are summarised as follows:

#### i) Reserve Case

- Open pit production data includes all ore inventory from the 2022 reserve pit designs, with pit optimisations conducted using A\$2,350/oz gold price,
- Underground production data including all ore inventory from 2023 reserve design, with underground mining optimisation conducted using A\$2,350/oz gold price.
- Total ore production includes 98% Ore Reserve and 2% Inferred mining inventory
- Process plant average throughput at 5.0Mtpa
- Financial model revenue calculated at A\$2,750/oz gold price for base evaluation (current spot gold price is A\$3100/oz).

#### ii) LOM Case

- Open pit production data includes all ore inventory from the 2023 larger pit designs, with pit optimisations conducted using A\$2,750/oz gold price.
- Production data from underground including all ore inventory from the 2023 scenario 1B design, as well as the Toms Gully 'Crown Pillar' extraction.
- Total ore production includes 90% Ore Reserve (Probable) and 10% Inferred mining inventory
- Process plant average throughput at 5.3Mtpa
- Financial model revenue calculated at A\$2,750/oz gold price for base evaluation (current spot gold price is A\$3100/oz).

Both scenarios include low and high case variations for changes in gold price, with summary of key economic results from the cashflow model. The results show a financially robust project with long mine life and short capital payback, the results are summarised in Table 1-22.

MODEL	UNITS	RESERVE CASE			LOM CASE			
PROJECT PHYSICALS		Gold	Gold	Gold	Gold	Gold	Gold	
PROJECT PHTSICALS		A\$2550	A\$2750	A\$2950	A\$2550	A\$2750	A\$2950	
Project Life	Yr	11	11	11	13	13	13	
Total Ore Mined	Mt	56.3	56.3	56.3	66.3	66.3	66.3	
Strip Ratio	W:O	1.58	1.58	1.58	1.79	1.79	1.79	
Ore Grade	g/t	0.92	0.92	0.92	0.92	0.92	0.92	
Ounces Contained	oz	1,670,474	1,670,474	1,670,474	1,952,970	1,952,970	1,952,970	
Recovery	%	87.4%	87.4%	87.4%	86.5%	86.5%	86.5%	
Ounces Recovered	oz	1,460,670	1,460,670	1,460,670	1,690,224	1,690,224	1,690,224	
Ave. Plant Throughput	Mtpa	5.0	5.0	5.0	5.3	5.3	5.3	
Ave. Annual Ounce Production	ozpa	131,790	131,790	131,790	135,218	135,218	135,218	
PROJECT FINANCIALS								
Development Capital	A\$M	394	394	394	394	394	394	
Closure & Rehabilitation	A\$M	32	32	32	32	32	32	
Gold Price	A\$/oz	2,550	2,750	2,950	2,550	2,750	2,950	
Gold Sales Revenue	A\$M	3,725	4,017	4,309	4,310	4,648	4,986	
Mining Costs	A\$M	818	818	818	1011	1011	1011	
Processing Costs	A\$M	1047	1047	1047	1202	1202	1202	
Site G&A Costs	A\$M	115	115	115	132	132	132	
Royalty (2.5% & Others)	A\$M	99	107	114	114	123	132	
MRA (NT Govt. Levy)	A\$M	165	218	270	195	254	315	
Sustaining Costs	A\$M	96	96	96	110	110	110	
Project Costs (Pre-Tax)	A\$M	2,340	2,400	2,460	2,765	2,833	2,902	
Project Cashflow (Pre-Tax)	A\$M	959	1,191	1,423	1,119	1,389	1,658	
NPV6 (Pre-Tax)	A\$M	600	765	931	688	874	1059	
IRR (Pre-Tax)	%	34%	40%	46%	34%	40%	45%	
Payback Period	A\$M	2.4	2.1	1.9	2.6	2.3	2.1	
Project Cashflow (Post-Tax)	A\$M	685	850	1,015	801	994	1,188	
NPV (Post-Tax)	A\$M	414	535	655	478	612	748	
IRR (Post-Tax)	%	28%	33%	39%	28%	33%	38%	
COSTS OF PRODUCTION								
Mining Cost Per Ore Tonne	A\$/t	14.5	14.5	14.5	15.2	15.2	15.2	
Processing Cost Per Ore Tonne	A\$/t	18.6	18.6	18.6	18.1	18.1	18.1	
Site G&A Cost Per Ore Tonne	A\$/t	2.0	2.0	2.0	2.0	2.0	2.0	
Total Cash Cost (C1) Per Ore Tonne	A\$/t	35.2	35.2	35.2	35.4	35.4	35.4	
Total Cash Cost (C1) Per Ounce	A\$/oz	1,340	1,340	1,340	1,373	1,373	1,373	
Royalties	A\$/oz	68	73	78	67	73	78	
Sustaining Costs	A\$/oz	63	63	63	63	63	63	
All In Sustaining Cost (AISC) Per Ounce	A\$/oz	1,471	1,477	1,482	1,503	1,508	1,514	

Table 1-22 Project Financial Metrics, By Scenario

The financial model includes for the following assumptions listed in Table 1-23 below:

Key Input	Assumptions					
Gold Price	<ul> <li>- A\$2,750/oz real (US\$1,787/oz) compares favourably to spot gold of A\$3,100/oz 1 (US\$1,970/oz)</li> </ul>					
Valuation Date	- 31 October 2023					
	- Kirkland Lake Production Royalty: A\$10/oz recovered, subject to a cap of A\$2.5M					
	- Kirkland Lake Cash Flow Royalty: a total of A\$1.55M when cash flows are first positive, payable in Qtrly instalments					
Royalties & Gov. MRA	- Karen On Production Royalty: 10 oz/Mth when Rustlers Roost is in operation. This applies to the Rustlers Roost tenement only.					
Levy	- NT Government:					
	1. Minimum NSR of 2.5% (The NSR is an ASIC royalty, with the delta between the NSR and Net Value treated as an AIC levy)					
	2. MRA Levy, 20% of Net value, which equals: Net revenue () operating costs () capital recognition deduction					
Тах	- Initial tax losses: A\$60.6M (2023)					
Tax	- Australian corporate tax rate of 30.0%					
Depreciation	- Double declining tax depreciation over an assumed 15 year useful life					
Tax Treatment of Capital	- Initial construction, Toms Gully development and sustaining capex is depreciated with Mine Properties					
Costs	- Rehab & closure and exploration costs are immediately deductible for tax purposes					
Working Capital	- Nil starting balance of working capital (receivable and payable)					
Cash Balance	- Mt Bundy (Primary Gold) is free of cash and debt					

Table 1-23 Financial Model Assumptions

The project cashflows, inflows vs outflows, and cumulative cashflows are presented in the Figure 1-23 and Figure 1-24 below for the Reserve Case and LOM Case respectively:









#### 1.15 Risk Analysis

A risk workshop was undertaken over a span of two days in Q3 2023 to identify, assess and recommend control measures to eliminate or reduce associated project risks to an acceptable level to Primary Gold. The participants of this workshop included personnel from Primary Gold, Mintrex, BEC and Knight Piesold and covered geological, environmental, operational, metallurgical and processing aspects in relation to the overall project. The risk workshop register has been included as part of this DFS report, refer chapter 14.

#### 1.16 Conclusion

The 2023 Mt Bundy definitive feasibility study describes a robust, long life gold development project, with a large capacity 5Mtpa process plant, TSF and associated infrastructure in a favourable location, only 1hr drive from Darwin seaport and international airport facilities.

The project has 3Moz in gold resources and 1.64Moz in gold Ore Reserves (estimated at A\$2350/oz). The project is centred around the Rustlers Roost bulk mining open pit operation, with a low strip ratio of 1.3 to 1 and one of the largest undeveloped open pit ore reserves in Australia. Using the conservative gold prices of A\$2,750/oz, the project has a short capital payback period of only 2 years and attractive financial metrics, with a 40% IRR and pre-tax NPV6 of A\$765M and A\$874M for the 'Reserve Case' and 'LOM Case' scenarios respectively.

With renewed long life mining leases of 30 years and all project environmental approvals (EIS) and dewatering discharge licenses received, place the Mt Bundy Project in good standing for development, with subsequent approval submissions having now been made for the project MMP. Key infrastructure including a new power grid connection to the Toms Gully underground mine site, allow for the future connection to the proposed accommodation village site assisting development.

To maintain alignment to the DFS project implementation schedule, the early works and tendering for the EPCM and construction contract should be initiated as soon as final investment decision is made. Other early works including the construction camp and gas pipeline contract should commence, following the award of the EPCM contract and confirmation of project development critical path.

#### 2. LIST OF REFERENCES

- 1. Cube Consulting Pty Ltd, (Dec 2021) 'Mineral Resource Estimate Rustlers Roost Gold Project, Mt Bundy, Northern Territory, Australia'. Cube Project: 2021\_205.
- 2. Cube Consulting Pty Ltd, (Dec 2021) 'Mineral Resource Estimate Toms Gully Gold Project, Mt Bundy, Northern Territory, Australia'. Cube Project: 2021\_205.
- 3. Cube Consulting Pty Ltd, (Dec 2021) '*Mineral Resource Estimate Quest 29 Gold Project, Mt Bundy, Northern Territory, Australia*'. Cube Project: 2021\_164.
- 4. Orelogy Consulting Pty Ltd, (March 2022) '*Mt Bundy Gold Project Rustlers Roost and Quest 29 Gold Deposits, Ore Reserve Estimate Statement*'. Doc# 0843.1.Rev 0.3
- 5. Orelogy Consulting Pty Ltd, (November 2023) 'Toms Gully Ore Reserve Report'. Doc# 0972.1 Rev A
- 6. Independent Metallurgical Operations Pty Ltd, (Sep 2013) 'Primary Gold Ltd, Toms Gully Feasibility Study'. Project# 5383.Rev 1
- 7. GBM, (May 2006). '*Mt Bundy Gold Project Feasibility Study Technical Report*' (*Prepared for Valencia Ventures Inc.*). Report# 0224. Rev 1.0
- 8. GRES, (Nov 2021). 'Rustlers Roost Project Prefeasibility Study' (Prepared for Hanking Australia Investment Pty Ltd.). Project#12736. Rev C
- 9. Northern Territory Environmental Protection Authority, (Apr 2023) 'Assessment Report, Environmental Impact Statement, Primary Gold Ltd, Rustlers Roost & Quest 29 Open-cut Mine Redevelopment'. Report# 99.
- 10. Northern Territory Environmental Protection Authority, (Feb 2020) 'Assessment Report, Environmental Impact Assessment, Toms Gully Underground Project, Primary Gold Ltd'. Report# 91.
- 11. ABC Bullion Australia (2023), Gold Spot Price Chart, Available at: https://www.abcbullion.com.au/products-pricing/gold, (Accessed: 26 Sep 2023)