HEMI GOLD PROJECT
OUTSTANDING FINANCIAL METRICS IN HIGH CONFIDENCE DEFINITIVE FEASIBILITY STUDY

Average annual production of 530koz over first 10 years for pre-tax free cashflow of $6.3 billion

Increased Hemi JORC Ore Reserve of 6.0Moz @ 1.5g/t Au

Board endorses DFS outcomes and commencement of early Project implementation activities targeting first gold in H2 2026

Tier 1 Production Profile and Expanded Ore Reserve

- Average annual gold production[1] and All-in Sustaining Cost[2] (AISC) from Hemi deposits alone of:
  - 553,000oz @ $1,229/oz in years 1 to 5
  - 530,000oz @ $1,295/oz in years 1 to 10
  - Peak production of 570,000oz in year 2
- Hemi-only JORC Probable Ore Reserve increases by 0.9Moz to 121Mt @ 1.5g/t Au for 6.0Moz
- High confidence production profile underpinned by 99% Probable Ore Reserves from Hemi over the current 12 year evaluation period
- Growth in the Hemi Ore Reserve delivers a lower risk, higher margin production profile compared to the PFS which included a contribution from the Regional deposits
- DFS confirms Hemi's status as a Tier 1 gold project which, once in production, will be a top five Australian gold mine[3] and in the lowest AISC quartile for large Australian gold mines[3]
  - Hemi is a top three global undeveloped gold project[3] based on average annual gold production

Compelling Financial Metrics (Unleveraged)

- Undiscounted free cashflow of $6.3 billion pre-tax and $4.5 billion post-tax
- Net Present Value ($NPV_{5\%}$) of $4.2 billion pre-tax and $2.9 billion post-tax
- Internal Rate of Return (IRR) of 45% pre-tax and 36% post-tax
- Capital cost estimate for the 10Mtpa plant and site infrastructure of $1,298M is inclusive of $162M of design growth allowance and contingency, plus an additional mine pre-strip capital cost of $47M
- Short payback period of 1.5 years pre-tax and 1.8 years post-tax due to commencement of mining operations at the high margin Brolga starter pit

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All figures are expressed as Australian dollars unless otherwise stated.

[1] The mine plan contains approximately 1% Inferred Mineral Resources. An Inferred Mineral Resource has a lower level of confidence than an Indicated Mineral Resource and there is no certainty that further exploration work will result in the conversion of the Inferred mineralisation into an Indicated Mineral Resource.

[2] AISC is based on the World Gold Council 2013 guidance note and includes all onsite costs associated with mining, processing and administration including royalties, certain sustaining and project capital and provision for post-mining rehabilitation.

[3] Refer to Appendix A in this announcement for supporting details. AISC excludes mines with material copper by-product credits.

- Capital cost estimate increase of 24% on the base capital estimate or 28% with design growth allowance and contingency in the DFS compared to the September 2022 Prefeasibility Study (PFS)
- The capital cost increase is in line with the experience of other mining projects recently in Australia
- Hemi remains one of the world's largest and lowest capital intensive gold development projects[3]
- Pit shells, leading to the DFS pit designs, were selected at an average gold price of $2,170/oz demonstrating the Company's discipline in maintaining cash operating margins and providing protection to the Project production profile and mine plan in the event of a lower gold price environment

Board Approval of Pathway to Production

- Based on the compelling DFS outcomes the De Grey Board has endorsed the DFS and has approved the commencement of Project implementation activities including:
  - Ordering and placing deposits, if needed, on long lead major equipment items on the Project critical path
  - Continuing to refine the Project execution plan
  - Detailed engineering and design to a high confidence level in parallel with Project approvals
  - Refining the Project contracting strategy
  - Advancing major Project tenders
  - Progressing activities to support the Project execution schedule
  - Progressing and concluding Project financing
- Shortlisted potential debt providers will be provided with the DFS and an independent technical report to facilitate final term sheets and structuring of the Project financing package
- The high confidence production profile, Tier 1 status of Hemi, location and attractive financial outcomes of the DFS are expected to support continued strong debt funding interest and capacity
- The Company will consider a Final Investment Decision (FID) in parallel with Project financing and approvals
- Full construction activities are expected to commence at Hemi in the second half of calendar year 2024 following the receipt of environmental approvals and the completion of Project implementation activities which will significantly de-risk Project construction
- Based on an estimated two year construction period, first gold pour at Hemi targeted for second half of calendar year 2026, subject to the receipt of approvals

Tier 1 Mineral Resource

- The Hemi June 2023 Mineral Resource Estimate (MRE) update increased the Hemi resource from 8.5Moz to 9.5Moz
  - Importantly, the Indicated portion of the Hemi MRE increased from 5.8Moz to 6.9Moz
  - Underpins a 0.9Moz increase in the updated Hemi Probable Ore Reserve to 6.0Moz which contributes 99% of the DFS production profile
- The Hemi MRE is based on 249,192m of RC drilling and 133,574m of diamond drilling, providing a high level of confidence in the MRE and a high percentage of diamond drilling for open pit mining

Open Pit Mining

- Mining will commence with the Brolga starter pit which drives high rates of initial annual gold production, delivering a highly attractive payback period of the Project of under two years:
  - Brolga's contribution to de-risking the financial metrics of the Project and corporate risk is driven by its large, consistent grade, intrusion hosted mineralisation

- Mining at Hemi will be undertaken using large scale, efficient open pit mining equipment
- Mining is proposed to be undertaken with contract mining and the Company has undertaken early contractor engagement with experienced and well-respected contractors operating large scale fleets in Western Australia
- Detailed geotechnical and hydrogeological testwork, studies and 3D modelling have been completed providing detailed orebody domaining in waste and ore zones
- Ore and waste domaining conducted using detailed geochemical and mineralogical analysis has identified materials in transported cover overburden for general construction and tailings dam construction
- Approximately 30% of material moved is surface transported cover overburden requiring no drill and blast or grade control and could be extracted using an automated fleet

Stable Processing Flowsheet

- Process flowsheet developed for the Project uses robust, well proven technology based on extensive bench and pilot-scale testwork
- A geometallurgical model has been generated from detailed geochemical and mineralogical studies within the orebody linked to metallurgical testwork and the processing schedule
- Multi-element analysis conducted uniformly on all drill holes into the deposits allow gold, sulphur, iron, arsenic and calcium carbonate to be included in the resource model and the mine and processing schedules
- Nameplate plant throughput of 10Mtpa for the comminution, flotation and CIL circuits with pressure oxidation (POx) circuit throughput of 0.8Mtpa based on a low mass pull sulphide concentrate
- The plant flowsheet and layout have been designed for easy scalability
- Average gold recovery of 93.5% over the life of mine demonstrates excellent amenability of the Hemi mineralisation across all deposits to the chosen process flowsheet
- Early oxide mineralisation and semi-refractory nature of ore further de-risks Project commissioning

ESG and Approval Process

- Widespread community and traditional custodian engagement has been conducted including a social impact assessment (SIA) of the Project
- Native Title Mining Agreement for Hemi signed with the Kariyarra People in December 2022
    - Agreement provides pathways for employment, training and contracting for the Kariyarra People, along with the establishment of a Kariyarra ranger program to support Aboriginal cultural heritage and land management
    - Agreement covers all Hemi resources as well as Project footprint and infrastructure, including plant and accommodation, tailings facilities and waste rock emplacements
    - Approximately 50,000ha of ethnographic and 16,400ha of archaeological surveys competed since 2018
    - Recently conducted heritage surveys, in line with a cultural heritage management plan negotiated with the Kariyarra People completed over the planned Project disturbance footprint
- Mining Lease granted by the Western Australian Department of Mines, Industry Regulation and Safety in September 2023 covering all Hemi deposits, mining and infrastructure areas
- Extensive environmental baseline studies and testwork have been conducted across the Project for the past three years and the environmental approval process is well advanced
- Lodgement of the federal referral in accordance with the Environmental Protection and Biodiversity Conservation Act 1999 was completed in May 2023

- Submission of state referral documentation in accordance with the Environmental Protection Act 1986 WA was completed in June 2023
- A greenhouse gas management plan was developed and submitted as part of the EPA submission and includes a decarbonisation plan and forecast for the Project
- The decarbonisation plan forecasts the operation commencing at approximately 0.79 tonnes of CO_2 per annual ounce of gold production ($t.CO_2$/ozpa) for scope 1 and 2 emissions, reducing to approximately 0.49$t.CO_2$/ozpa by 2030 with further reductions in carbon intensity to be pursued
- Early adoption of grid based renewable energy planned with multiple options emerging within the North West Interconnected System

Upside to the DFS Outcomes and Value Catalysts

- Opportunities to improve the production profile and financial returns early in the life of the operation above the DFS estimates are being actively pursued
- Assessment is underway of the potential to increase the size of the Eagle and Diucon open pits based on drilling completed after the cut-off date for the June 2023 MRE and DFS mine designs
- Design allowance and scalability of the comminution and POx circuits has been built into the DFS plant design which provides scope to exceed nameplate throughput following commissioning
- With the DFS production profile underpinned by Hemi alone after significant growth in the Hemi Ore Reserve, the opportunity exists to separately assess and integrate the production potential of the current 2.2Moz Regional resource:
    - The inclusion of the Regional deposits of Toweranna and Withnell in the DFS production profile from year 8 delivers a lift in average annual gold production to 542,000oz over years 1 to 10 and 6.0Moz over an evaluation period of 12.5 years
    - Separate to this option, the potential for construction of a regional concentrator at Withnell, treating western regional deposits concurrent with production at Hemi, will be assessed
    - This assessment will consider an initial production target of 150,000ozpa from the 1.7Moz Mineral Resource centred at Withnell
- Extensional drilling has highlighted the potential for underground production concurrent with open pit production at Hemi, demonstrated in recent drilling at Diucon and Eagle and Aquila/Crow. Activities to include:
    - Updating the current Hemi Mineral Resource in late 2023
    - Conducting an initial assessment of the underground access and mining opportunity in 2024
- Drilling is ongoing targeting large, near surface deposits in the Greater Hemi and Regional areas which, if successful, has the potential to increase mine life from future open pits
- Since completion of resource infill drilling in the March quarter, drilling has now pivoted to exploration and resource extension drilling which was limited during the PFS and DFS phases

De Grey Managing Director and CEO, Glenn Jardine, commenting on the DFS outcomes:

"Delivery of the Hemi DFS represents a whole of Company effort, along with significant contributions from our consultants, contractors and stakeholders. The DFS sets a solid foundation from which the Company can proceed with confidence to the next stage of development of the Hemi Gold Project.

Physical and financial outcomes of the DFS reaffirm the quality and attractiveness of the Project and confirm its Tier 1 status. Alongside its spectacular gold endowment, the Project is also located in the major mining services centre of the Pilbara with world class infrastructure at hand. These attributes – along with the quality of studies, testwork and the major milestones achieved – mean the Project has been significantly de-risked over the last three and a half years.

De-risking has included growing the total Hemi Mineral Resource by 1Moz to 9.5Moz and the Indicated Mineral Resource from 5.8Moz to 6.9Moz this year. This has resulted in the DFS comprising production from Hemi alone and an incredibly high percentage of Reserves across the production profile and simplified project execution. This provides a high level of confidence in the production profile, has maintained low operating costs and simplified Project execution.

We believe there remains potential to increase the mine life and production profile of the Project. In the near-term there is potential to further expand and optimise the Diucon and Eagle open pits based on extensional drill results reported after the DFS mine design cut-off date. Additional opportunities that will be assessed include potential underground mining and construction of a Regional concentrator hub. The Hemi discovery is less than four years old and is a large mineralised system sitting within the Company's 2,500km^2 provincial scale tenement package. With the delivery of the DFS our exploration team can now put greater focus on making our next transformational gold discovery in the region.

De Grey's Board has endorsed the outcomes of the DFS and approved the commencement of preliminary Project development activities. These activities include ordering critical path long lead items, continuing detailed engineering and refining the Project execution plan, advancing major tenders and finalising the contracting strategy. This will establish the platform for a Final Investment Decision and full Project financing next year ahead of the start of construction, targeted for the second half of 2024. This timetable and the DFS construction schedule would result in first production from Hemi in the second half of 2026.

The Project development sequence that the Company has adopted represents a responsible and systematic approach and recognises the importance of maximising the success of Project execution to deliver shareholder and stakeholder returns.

I would like to thank everyone involved in bringing the Project to this stage of its development. We have a clear pathway and look forward to the next exciting stage of the Company's transition to developer and producer."

Key DFS Outcomes and Assumptions

The DFS confirms that the Hemi Gold Project is a globally significant Tier 1 gold project and presents a commercially attractive development opportunity, with significant upside.

A summary of the initial physical and financial evaluation of the Project at a 10Mtpa throughput rate is shown in Table 1 and within this DFS covering announcement. Additional details are also provided in the DFS Executive Summary which follows as an appendix to this covering announcement.

Table 1: Production and Financial Outcomes and Economic Assumptions

Key Production Outcomes	Unit	PFS	DFS
Production Sources		Hemi + Regionals	Hemi
Evaluation Period	Years	13.6	12.0
Ore Tonnes Mined	Mt	136	122
Strip Ratio – Hemi	waste:ore	6.1:1	6.6:1
Ore Processing Rate (nameplate)	Mtpa	10.0	10.0
Average Processed Grade – evaluation period	g/t Au	1.6	1.5
Average Processed Grade – Years 1 to 10	g/t Au	1.8	1.7
Average Metallurgical Recovery	%	93.6	93.5
Average Gold Production - First 5 Years	koz pa	550	553
Average Gold Production - First 10 years	koz pa	540	530
Total Recovered Gold	Moz	6.4	5.7
Hemi Contribution	%	83	100
Reserve Contribution	%	80	99
Key Financial Outcomes			
Gold Price	$/oz	2,400	2,700
Spot Gold Price at time of Study	$/oz	2,500	2,950
All In Sustaining Costs (AISC)			
Average first 5 years	$/oz	1,220	1,229
Average first 10 years	$/oz	1,280	1,295
Free Cash Flow (Evaluation Period)			
Pre-tax	$ billion	5.9	6.3
Post-tax	$ billion	4.2	4.5
EBITDA (Evaluation Period)	$ billion	7.1	7.9
Payback Period			
Pre-tax	Years	1.6	1.5
Post-tax	Years	1.8	1.8
Net Present Value ($NPV_{5\%}$)			
Pre-tax	$ billion	3.9	4.2
Post-tax	$ billion	2.7	2.9
Internal Rate of Return (IRR)			
Pre-tax	%	51	45
Post-tax	%	41	36
Upfront Capital Cost Estimate			
Plant and Infrastructure Capital Cost	$ million	885	1,136
Design Growth Allowance & Contingency	$ million	100	162
Pre-strip	$ million	68	47
Total Pre-Production Capital Costs	$ million	1,053	1,345
Key Environmental and Social (ES) Statistics			
LOM State Royalties & Corporate Taxes	$ billion	2.1	2.2
LOM Expenditure	$ billion	9.1	8.6
LOM Total Economic Value Add	$ billion	11.2	10.8
Carbon intensity	$t.CO_2$/ozpa	0.6 – 0.3	0.79 – 0.49

Table 2: Global Project Mineral Resource*

Mining Centre	Measured			Indicated			Inferred			Total		
	Mt	Au g/t	koz	Mt	Au g/t	koz	Mt	Au g/t	koz	Mt	Au g/t	koz
Hemi Mining Centre				165.7	1.3	6,876	70.7	1.2	2,632	236.5	1.3	9,508
Withnell Mining Centre	1.6	1.8	92	15.6	1.6	792	11.9	2.1	797	29.1	1.8	1,681
Wingina Mining Centre	3.1	1.7	173	2.5	1.5	122	6.3	1.2	243	11.9	1.4	538
Total	**4.7**	**1.7**	**265**	**183.8**	**1.3**	**7,790**	**88.9**	**1.3**	**3,672**	**277.4**	**1.3**	**11,727**

Table 3: Hemi Gold Project Mineral Resource*

Deposit	Indicated			Inferred			Total		
	Mt	Au g/t	koz	Mt	Au g/t	koz	Mt	Au g/t	koz
Aquila	12.7	1.5	631	7.2	1.2	283	19.9	1.4	913
Brolga	46.0	1.3	1,982	16.2	1.0	525	62.2	1.3	2,507
Crow	24.3	1.1	874	7.6	1.2	288	31.9	1.1	1,162
Diucon	37.2	1.3	1,590	17.1	1.4	773	54.3	1.4	2,363
Eagle	19.6	1.2	743	10.7	1.1	371	30.2	1.1	1,114
Falcon	26.0	1.3	1,056	12.0	1.0	393	37.9	1.2	1,449
Total Hemi	**165.7**	**1.3**	**6,876**	**70.7**	**1.2**	**2,632**	**236.5**	**1.3**	**9,508**

Table 4: Updated Hemi Ore Reserve#

Deposit	Proven			Probable			Total		
	Mt	Au g/t	koz	Mt	Au g/t	koz	Mt	Au g/t	koz
Aquila/Crow	-	-	-	24.7	1.6	1,259	24.7	1.6	1,259
Brolga	-	-	-	36.5	1.6	1,829	36.5	1.6	1,829
Diucon	-	-	-	26.6	1.6	1,383	26.6	1.6	1,383
Eagle	-	-	-	13.0	1.4	598	13.0	1.4	598
Falcon	-	-	-	20.0	1.4	932	20.0	1.4	932
Total Hemi	**-**	**-**	**-**	**120.8**	**1.5**	**6,002**	**120.8**	**1.5**	**6,002**

The rounding in the above tables is an attempt to represent levels of precision implied in the estimation process and apparent errors of summation may result from the rounding.

* Refer to ASX release of 15 June 2023, "Mallina Gold Project Resource Statement – 2023"

Refer to the Appendix of this document for details including JORC Table 1 disclosures

Conference Call

Managing Director, Glenn Jardine, will host a conference call to discuss the DFS at **9:30AM Australian Western Standard Time ("AWST") / 11:30AM Australian Eastern Standard Time ("AEST") today**, Thursday 28 September 2023.

To participate in the conference call, participants will need to pre-register for the call at the link below.

https://s1.c-conf.com/diamondpass/10033989-i3d26t.html

You will receive a calendar invite and a unique code which is to be quoted when dialling into the call.

To view the live webcast, participants can use the link below.

https://webcast.openbriefing.com/deg-mu-280923/

Introduction

De Grey Mining Limited (ASX: DEG) (De Grey or the Company) is pleased to present the outcomes of the Definitive Feasibility Study (DFS) completed on its 100%-owned Hemi Gold Project, located in the Pilbara region of Western Australia (Hemi or the Project). The DFS presents a detailed, high-quality evaluation of the Project. The Company has also identified clear opportunities for improvement to the DFS estimates which will be examined further during the pre-construction and construction phases.

The DFS follows the September 2022 Prefeasibility Study (PFS) and earlier July 2021 Scoping Study. In the PFS, a number of opportunities were identified to improve outcomes and the confidence in the production profile. These included:

- Increasing the resource base at the Hemi and Regional deposits through extensional drilling
- Increasing production potential by conducting new pit shell optimisations in areas where resources have been extended
- Increasing the percentage of JORC Indicated mineralisation within the open pit designs at Hemi
- Increasing reserves at Hemi through targeted resource definition drilling

These opportunities have now all been delivered upon and incorporated into the DFS outcomes.

The DFS outcomes are based on the June 2023 Mineral Resource Estimate (MRE) (JORC 2012) released on 15 June 2023. The update showed a Global Project MRE of 277Mt @ 1.3g/t Au for 11.7Moz, representing a 1.1Moz, or 12%, increase on the 2022 MRE.

The MRE for Hemi increased by 1.0Moz to 237Mt at 1.3g/t Au for 9.5Moz. Indicated Resources at Hemi increased by 1.1Moz to 166Mt at 1.3g/t Au for 6.9Moz. This has provided a strong platform for the DFS and accompanying updated Hemi Probable Ore Reserve of 121Mt at 1.5g/t Au for 6.0Moz representing an increase of 0.9Moz, or ~20%, to the maiden Hemi 5.1Moz Ore Reserve released with the PFS in September 2022.

The DFS production profile comprises 99% of Ore Reserves from Hemi. The remaining 1% comprises Inferred Resources that are incidental to open pit mining. This dominant proportion of Ore Reserves in the Hemi only and Hemi plus Regional production profiles provide a high confidence level to the physical estimates contained in the DFS and simplified Project execution.

The DFS does not include extensions to mineralisation at Hemi that have been announced since the June 2023 MRE assay cut-off date of 7 March 2023. Since then, significant extensions to mineralisation outside of the MRE have been reported at Diucon, Eagle and Toweranna. Exploration is ongoing across the Project and potential remains for extensions to the existing Hemi and Regional resources, as well for major new discoveries beyond the known deposits.

Opportunities to improve the DFS production profile and financial returns early in the life of the operation are being actively pursued. The Company has already identified several opportunities to improve the DFS outcomes. These include:

- Potential to increase the scale of the Eagle and Diucon open pits based on significant extensions identified in drilling completed after the cut-off date for the June 2023 MRE and DFS mine designs
- Potential construction of a separate Regional concentrator at Withnell treating Regional deposits with an initial target production rate of 150,000ozpa from the 1.7Moz MRE centred at Withnell plus potential resource extensions
- Potential for underground production concurrent with open pit production at Hemi, currently demonstrated at Diucon and Eagle with potential from other Hemi deposits

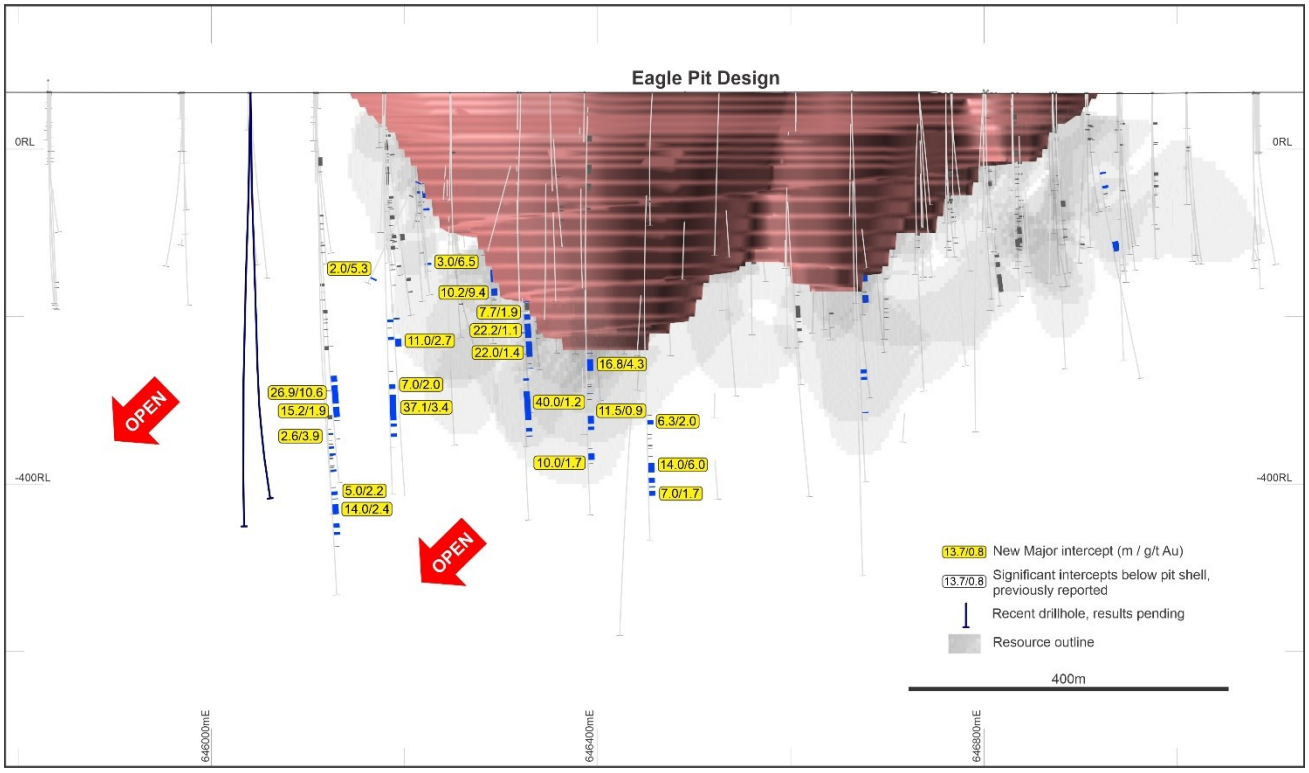
- Design allowance and scalability of the comminution and POx circuits has been built into the DFS which gives scope to exceed nameplate throughput following commissioning

The open pit designs at Hemi reach a maximum depth of 390m below surface. Within this upper 390m, Hemi boasts a mineral endowment of 23,500oz per vertical metre. Below 390m, a current 1Moz MRE has been calculated based on very limited drilling at Hemi below 400m. With further drilling, there is scope to materially increase the scale of this mineralisation with potential for underground mining. This potential was highlighted by results from drilling at Eagle released in August 2023 which included (Figure 1):

- 26.9m @ 10.6g/t Au from 425.1m (including 3.5m @ 16.7g/t Au from 434.5m and 3m @ 54.7g/t Au from 441m), and 15.2m @ 1.9g/t Au from 456.9m in HEDD192
- 14.0m @ 6.0g/t Au from 536m (including 1.0m @ 73.9g/t Au from 544m) in HEDD084
- 37.1m @ 3.4g/t Au from 431m (including 3.9m @ 15.1g/t Au from 458.3m) in HEDD083

An updated Hemi MRE is planned in late 2023 which will incorporate results of all drilling completed since March 2023. Additional drilling targeting deeper mineralisation at Hemi will be undertaken in 2024, alongside an initial assessment of underground access and mining. These studies will assess the potential to initiate underground mining within the first five years of the operation to bring higher grade ore feed into earlier stages of the mine plan.

Figure 1: Eagle long projection showing new drill results outside the optimised open pit shell



Potential exists for the establishment of a separate Regional concentrator producing a high-grade gold concentrate for processing at the Hemi plant. The addition of higher-grade concentrate feed provides scope to increase the overall annual production rate and mine life. The current 1.7Moz MRE centred around Withnell, approximately 30km west of Hemi, has the potential to expand with resource extensional drilling and presents a potential location for such a concentrator. An assessment of this opportunity, targeting an initial production rate of 150,000ozpa, will commence in 2024.

The provincial-scale exploration opportunity across the Project has yet to be fully realised. The recent extension of the Company's exploration footprint in the Mallina Basin by 1,034km^2 through the Egina Joint Venture expands the exposure to the province to approximately 2,500km^2 and capitalises on the valuable intellectual property generated since the discovery of Hemi in late 2019. Drilling will continue to target new, near surface, large scale, intrusion-hosted gold deposits with potential to enhance the production profile and mine life.

Resource drilling has commenced at Antwerp, to the west of Eagle and outside the current Hemi MRE. Resource drilling has also commenced at the Withnell South lodes which were discovered by De Grey in 2022. A number of earlier stage intrusion-style targets are also being tested with aircore (AC) and reverse circulation (RC) drilling including at Wallareenya, Jabiru, Mt Berghaus and Charity Well. First drilling under De Grey management of the Egina JV will commence in the coming months.

Project Location

The Project is located (Figure 2) approximately 1,300km north of Perth in the Pilbara region of Western Australia and approximately 85km by road south of the regional Pilbara hub of Port Hedland.

Existing infrastructure capable of servicing the Project includes:

- Two major bitumen highways; the North West Coastal highway and the Great Northern highway
- Two gas pipelines; the Pilbara Energy gas pipeline and the Wodgina Mine gas pipeline
- The Port Hedland to Karratha 220kV power transmission line fed separately by two gas fired power stations located at Port Hedland and Karratha
- The port of Port Hedland, a bulk export and materials import facility
- The international airport at Port Hedland
- Existing combined mobile (cell) tower and optic fibre/wireless communications

Renewable energy sources are being constructed or planned in the Pilbara along with an expanded high voltage distribution network (Figure 3). These initiatives will provide De Grey with the potential to access renewable energy sources as the Project is developed and throughout operations.

Figure 2: Hemi Project Regional Location Map

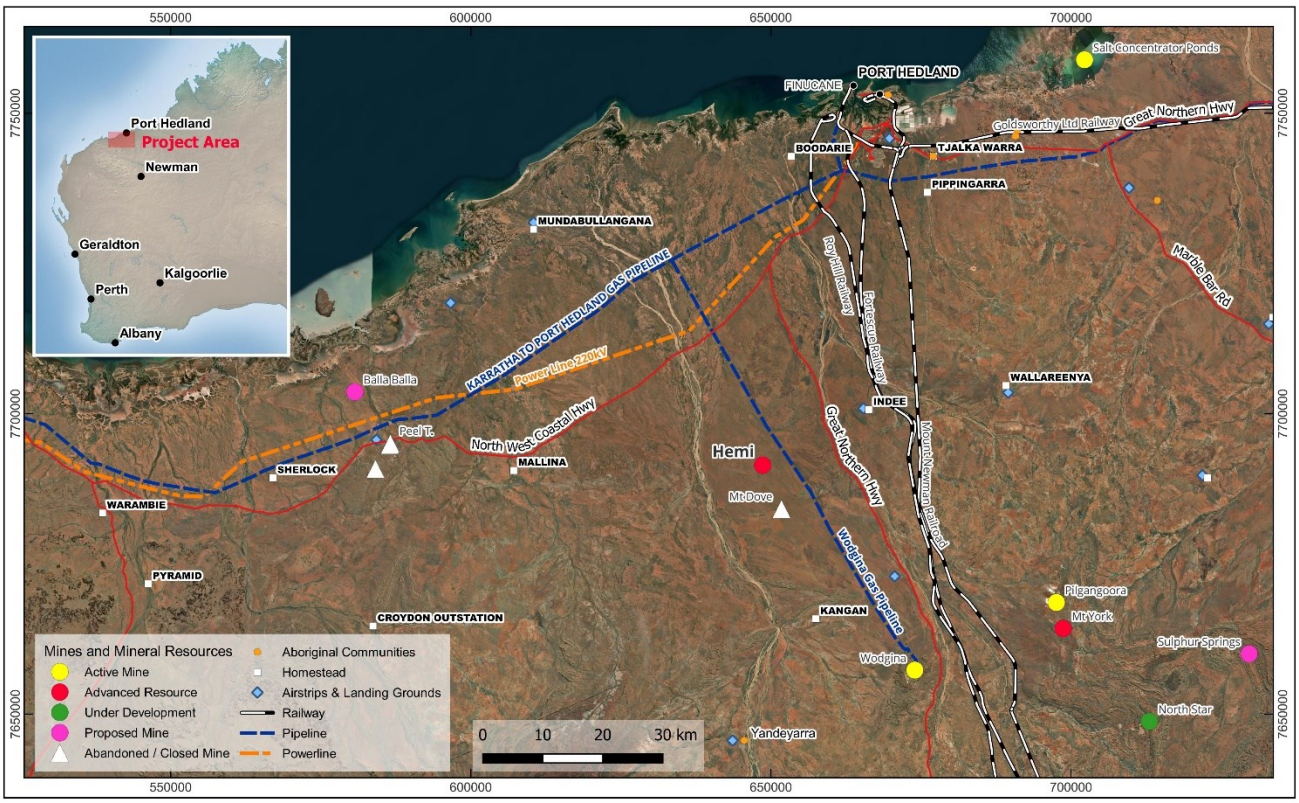


Figure 3: Hemi – Pilbara Generation and Interconnection

NWIS Connections & Large Green Generation Projects

Australian Renewable Energy Hub

Estimated Production Date: 2027/2028

- FID 2025
- $36bn project size
- 6,500 square kilometre footprint
- 26GW of wind and solar capacity developed in multiple phases.
- InterContinental Energy, CWP Energy Asia, Vestas, Macquarie and BP (40% June 22).

Department of JTSI – Northwest Hydrogen Hub

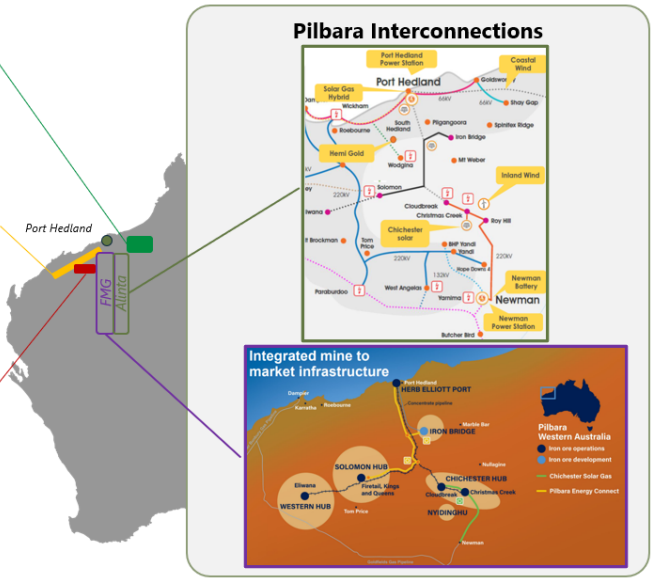
Estimated Launch Date: by 2030

- $117m of initial government funding
- Five interconnected hubs from Onslow to Port Hedland
- 500km of renewable energy generation
- Designed to produce Hydrogen for export
- Includes provision for transmission connection to Australian Renewable Energy Hub

ACEN Australia & Yindjibarndi Aboriginal Corporation Hub

Announced July 2023, Estimated Launch Date: by 2027/2028

- FID date unknown
- Initial 750MW of wind, solar and BESS with ambitions to expand to 3 GW of renewable generation
- Expected NWIS connection via Karratha
- Yindjibarndi equity of 25% to 50% in all projects
- Partnering with Philippines based ACEN Australia who is targeting 8GW of clean energy projects across Australia by 2030.



Production

The DFS mine plan comprises open pit mining production from the Hemi deposits of Aquila, Brolga, Crow, Diucon, Eagle and Falcon (Figure 4). The Regional deposits were included in the PFS but excluded from the DFS physical and financial metrics having been studied to a PFS level and following the growth and increased JORC confidence of the Hemi deposits in the June 2023 MRE. All of the Hemi deposits are located within 4km of the proposed processing plant site.

The production profile of the DFS demonstrates an annual production range up to approximately 570,000oz in year 2, with average production of 553,000oz over the first 5 years and 530,000oz over the first 10 years (Figure 5). Production over the evaluation period is achieved with 99% coming from JORC Probable Ore Reserves. The DFS financial outcomes have been modelled on a production profile supported by the Hemi deposits only.

Production in the DFS currently reduces after year 10 as lower grade mineralisation is mined and low-grade stockpiles are processed. However, the Project continues to generate strong cashflows throughout each of the remaining two years of its current life of mine. It is expected that, in time, extensions to existing resources, the inclusion of greater production from Regional deposits and new discoveries have the strong potential to maintain gold production above 500,000ozpa beyond year 10.

Design allowance and scalability of the comminution and POx circuits has been built into the DFS which gives scope to exceed nameplate throughput following commissioning through plant de-bottlenecking and further optimisation. The Company would therefore reasonably expect plant throughput to increase by approximately 10% to 15% over the life of mine with minimal capital expenditure. This would increase production rates by bringing forward production from the later years of the DFS production profile or make space for additional production from potential new discoveries.

Figure 4: Hemi Pit Shell Outlines

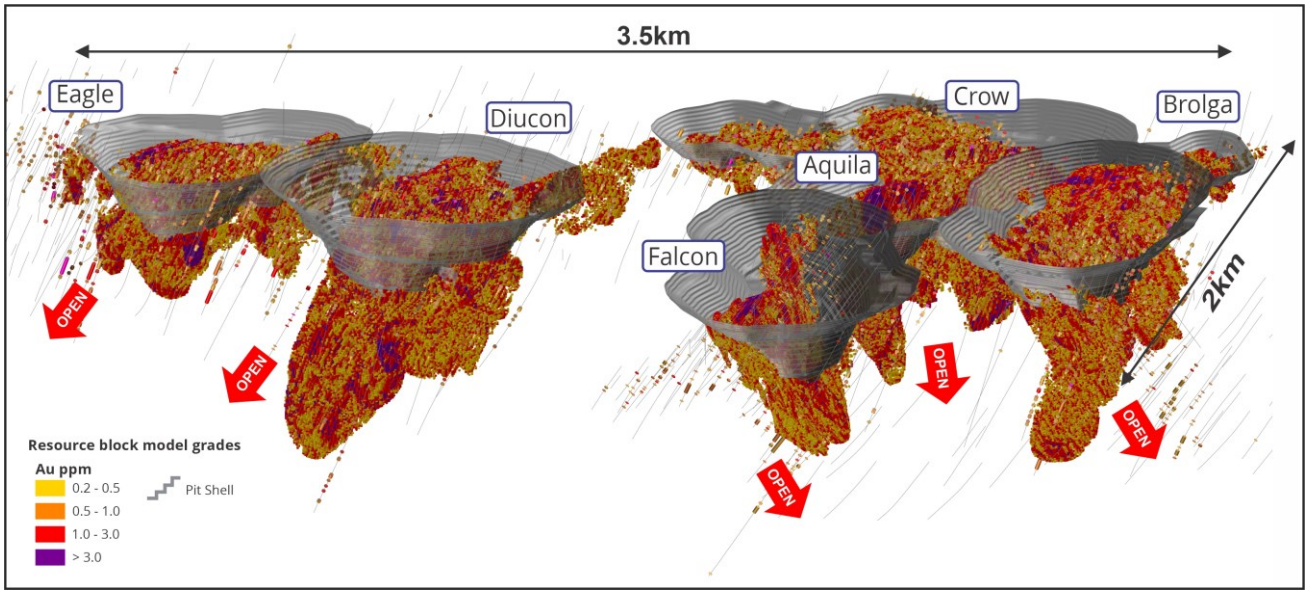
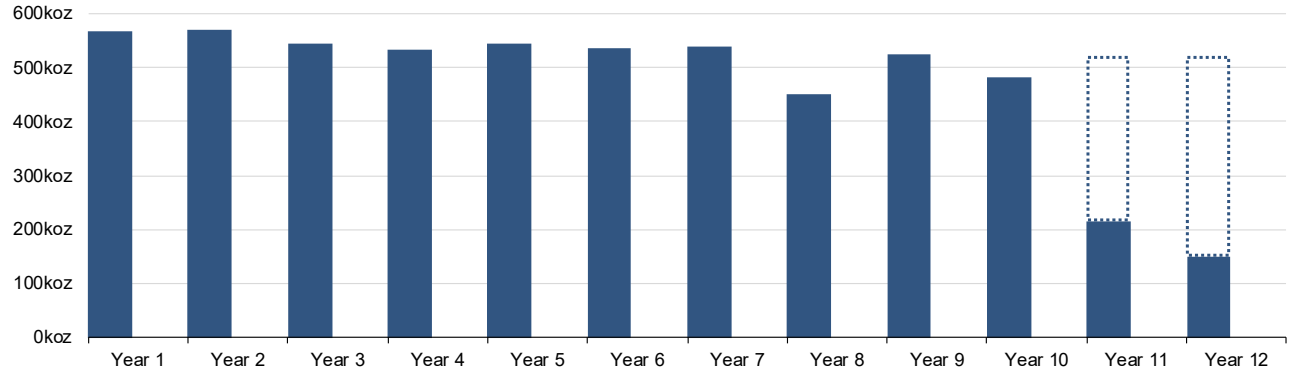


Figure 5: Hemi Annual Gold Production



The mine plan contains approximately 1% Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised.

Process Configuration

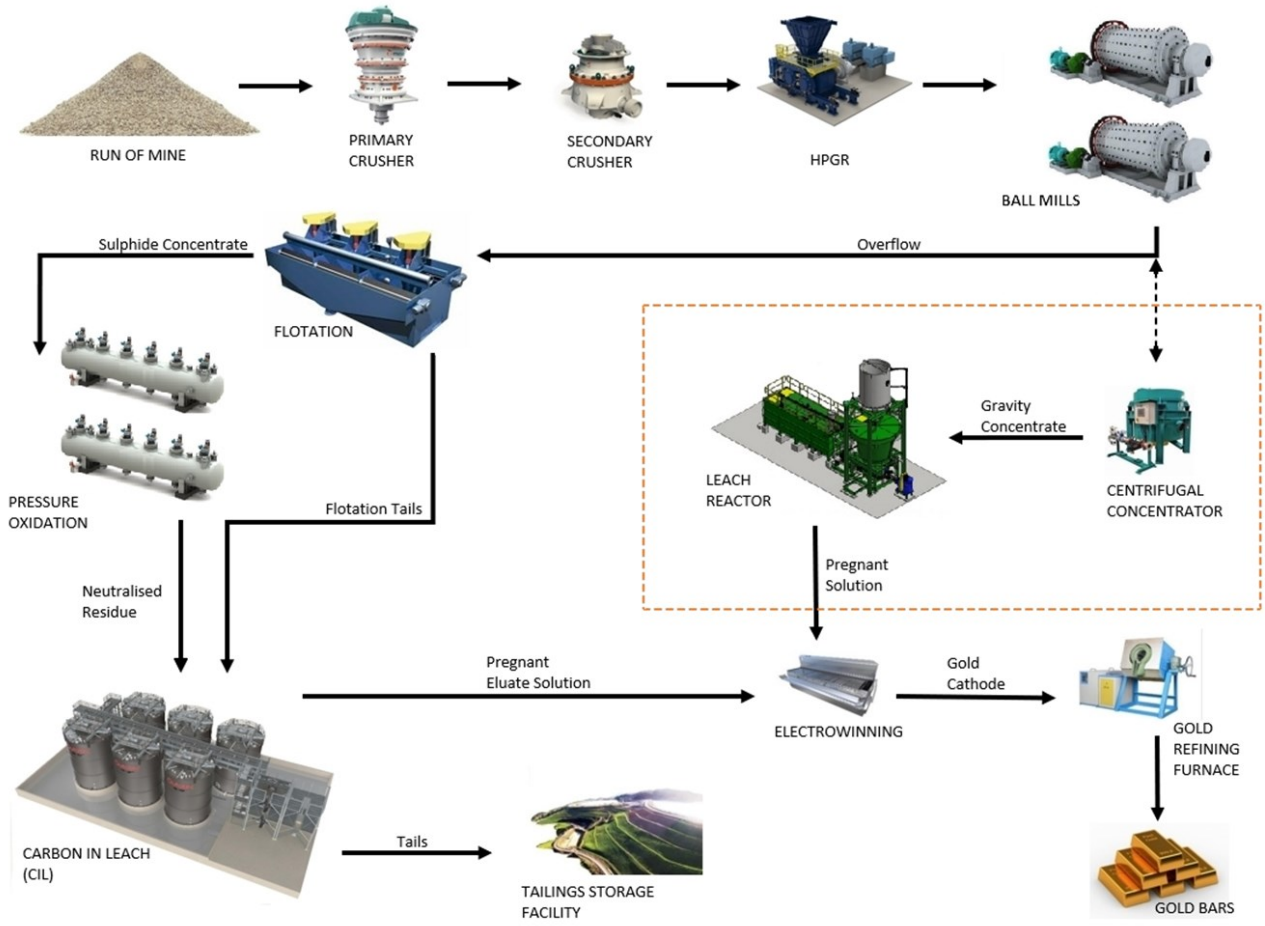
The preferred comminution circuit and oxidation circuit for the process plant was selected during the PFS based on a detailed assessment and testwork for various options. This selection was then carried forward into the DFS where extensive pilot testwork was undertaken. The preferred comminution circuit comprises primary and secondary crushing, high pressure grinding roller (HPGR) and ball mills followed by flotation, pressure oxidation and cyanide leaching (Figure 6). Similar comminution circuits are used in large scale gold projects. Hemi ore has the advantage of generating a low (8%) mass pull sulphide concentrate as feed to the POx circuit. This reduces the POx throughput to 0.8Mtpa compared with the overall plant throughput rate of 10Mtpa.

Based on the results of the DFS testwork, Hemi mineralisation achieves an average estimated metallurgical recovery of 93.5%. This included pilot testwork in both Canada and Australia.

Pressure oxidation has been successfully applied as an oxidation process route at numerous plants around the world for more than 30 years. The technology is generally considered as the mainstream method for oxidising sulphide concentrates. Examples of gold plants that have or are utilising pressure oxidation are:

- OceanaGold Macraes New Zealand
- Evolution Red Lake Canada
- Barrick / Newmont Goldstrike USA
- Barrick Porgera PNG
- Barrick Pueblo Viejo Dominican Republic
- AngloGold Ashanti Sao Bento Brazil
- Barrick / Newmont Lone Tree USA
- Barrick / Newmont Twin Creeks USA
- Newcrest Lihir PNG
- Agnico Eagle Kittila Finland
- SSR Mining Copler Turkey

Figure 6: Simplified Process Flowsheet



Operating Cost Estimate

The DFS operating costs have been developed based on a projected 10Mtpa processing plant, treating 122Mt million tonnes of ore at a gold grade of 1.5g/t over a 12 year evaluation period, recovering approximately 5.7Moz of gold.

The operating costs have been compiled and developed from a variety of sources including:

- First principal estimates based on a ground up build approach applying key physical drivers, volumes and consumption rates
- Metallurgical testwork
- Contractor request for quotes (RFQs or RFPs) in May 2023
- Key consultant and vendor recommendations/inputs
- General and administration costs determined by De Grey
- Personnel numbers and salaries costs determined by De Grey and external consultants
- Supplier requests for pricing and budget quotations
- Operational unit rates determined by De Grey from similar operations

Operating costs cover all onsite costs directly associated with mining, processing, and administration plus all other costs related to sustaining production of the operation over the lifecycle of the Project including state royalties, sustaining capital and other land access, community investment and other non-production costs. These include the cost of supply, by others, of oxygen required for the oxidation process.

The mining area activity costs have been estimated based on a contractor mining strategy based on requests for pricing (RFP).

Wood Australia (Wood) was engaged to undertake an independent assessment of the processing operating cost estimate at a throughput rate of 10Mtpa. Processing costs were determined by Wood based on design plant throughput rates, process plant design criteria, mass balance consumption rates and metallurgical testwork. Administration and all other sustaining operating costs were developed by De Grey.

Table 5: Hemi Cash Operating Cost Estimate ($/t of ore processed)

Area	Cost Estimate
Mining	$32.93/t ore processed
Processing	$24.23/t ore processed
Administration	$2.30/t ore processed

Operating costs have been estimated for the three key areas of the Project: mining, processing and administration. The operating cost estimates have been derived using a first principles desktop study approach, reagent supplier and mining contractor estimations to an accuracy of -15%/+15% accuracy.

Administration costs were estimated at $2.30 per tonne of ore treated. This administration cost estimate accounts for the costs of flights and accommodation for administration and village personnel as well as safety and administration consumables, communications, environmental monitoring and compliance, insurance and other ancillary administration costs.

Table 6: Hemi All-in Sustaining Costs (AISC)

Timeframe	AISC Estimate
First 5 years	$1,229/oz
First 10 years	$1,295/oz

The AISC metric is based on the World Gold Council published guidance note (first issued in 2013) and is a non-GAAP (Generally Accepted Accounting Principles) and IFRS (International Financial Reporting Standards) metric, widely used in the gold mining industry in an attempt to create uniformity for those that adopt it. AISC reported includes all onsite costs associated with mining, processing and administration including royalties, certain sustaining and project capital and provision for post-mining rehabilitation.

Capital Cost Estimate

The capital cost estimate was principally compiled by Wood and is based on an Engineering, Procurement, Construction and Management (EPCM) approach for the processing plant, process plant infrastructure and other site-based infrastructure. It covers all the costs associated with the construction and associated expenditure to develop the Project to a production capacity of 10Mtpa to produce over 500,000oz of gold doré annually.

The capital cost estimate has increased by 24% on the base capital estimate or by 28% including design growth allowance and contingency in the DFS compared to the September 2022 PFS. This scale of increase in capital cost

estimates, or between estimated and actual capital costs, has been experienced by a variety of major resource projects in Australia from 2021 to 2023. This context further supports the integrity of the DFS capital cost estimate.

The majority of the increase is directly related to the increased estimated cost of labour, materials and consumables, as well as from the refinement of Project scope and cost estimates. There have been no changes to Project scope which materially impacted the capital cost estimate from the 2021 Scoping Study through to the 2023 DFS.

The capital cost estimate is judged to have an accuracy of -15%/+15% and is considered by Wood to be a Class 3 estimate according to AACE International for their estimate.

The estimate includes all costs associated with engineering, drafting, procurement, construction, construction management, freight, commissioning, first fills of plant reagents, consumables and spares, owner's costs and project management, design growth allowance and a risk weighted contingency.

The estimate is based on an initial level of engineering, material take-offs for earthworks, concrete, steelwork and platework and budget price quotations for major equipment and bulk commodities.

Preliminary global quantities have benchmarked and determined from in-house data bases for similar installations, equipment lists, engineer's calculations, preliminary layout drawings and vendor data.

The estimate excludes the capital cost of an oxygen plant for the pressure oxidation circuit. This plant is proposed to be built and operated as a build-own-operate by a third party under an oxygen supply arrangement with oxygen supplied as an operating cost over the fence.

Table 7: 10Mtpa Plant and Infrastructure Capital Cost Estimate

Area	Note	Cost $M
Processing - Plant	*1*	616
Processing - Infrastructure	*2*	85
Processing - Indirects	*3*	37
Infrastructure - Site	*4*	200
EPCM/Owner's Costs	*5*	198
Subtotal		1,136
Growth Allowance/Contingency		162
Total		1,298

Notes: 1. Comminution, flotation, oxidation, neutralisation, & leaching circuits; oxygen plant assumed as BOO
2. Power substation, tailings storage facility, buildings, offices, laboratory, and workshops
3. First fill reagents & consumables, ocean freight, spares, commissioning
4. Associated site infrastructure including water supply borefield, village, airstrip, sealed access roads, communications
5. EPCM / Owner's costs / temporary facilities / insurances

Economic Assumptions and Sensitivity Analysis

Key economic and financial model assumptions used for the DFS are outlined in Table 8.

Table 8: Key DFS Financial Assumptions

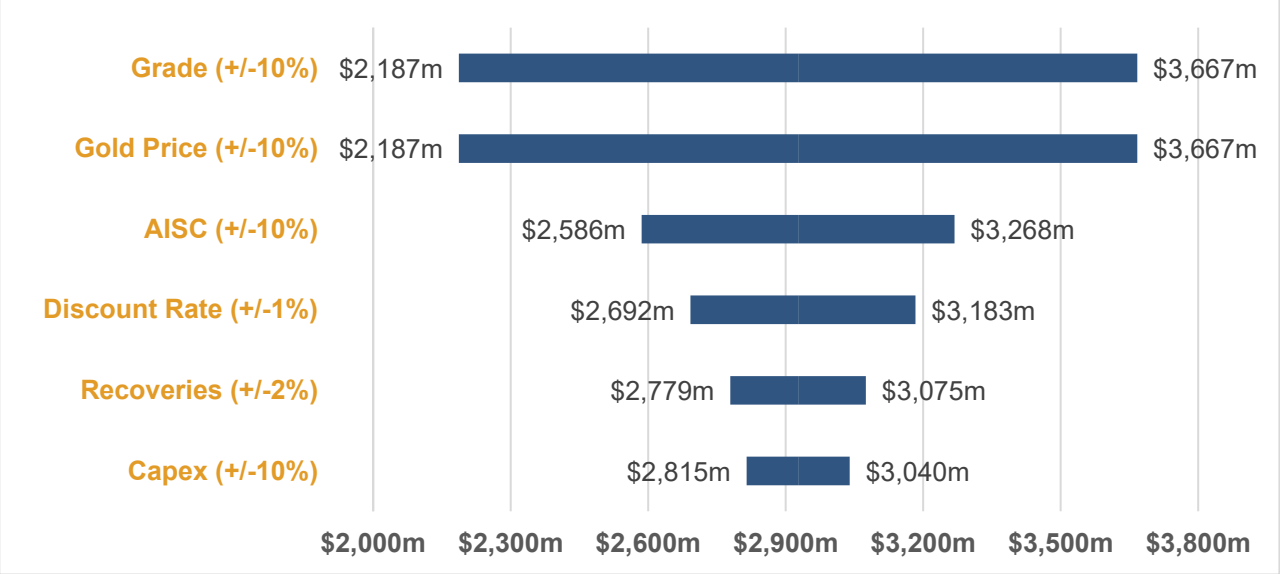
Area	Assumption
Gold Price	$2,700/oz
Discount Rate	5%
Exchange Rate	0.71 USD:AUD

The Company believes it was appropriate to increase the gold price assumption of $2,400/oz applied in the PFS to $2,700/oz for the DFS due to a number of factors. The DFS assumption reflects an approximate 10% discount to the current Australian dollar spot gold price of ~$2,950/oz and is broadly consistent with recent gold price assumptions in studies conducted this year by Australian peers. Furthermore, the consensus forward price curve shows a gold price of A$3,334/oz in 2026 when the Project is scheduled to be entering production. The Hemi deposit pit shells, leading to pit designs, were selected at an average gold price of $2,170/oz, reflecting the Company's focus on maintaining strong cash operating margins.

Sensitivity analysis (Figure 8) shows the Project to be least sensitive to changes in capital cost. This is due to the high annual gold production rate over the evaluation period and the low operating costs driven by the low strip ratio Brolga starter pit mined at the commencement of operations. The analysis demonstrates significant leverage to improved head grade, gold price and AISC.

For example, an approximate 10% increase in the DFS assumed gold price of $2,700/oz (relative to the current spot gold price of ~$2,950/oz) would increase post-tax $NPV_{5\%}$ by ~$700M, whereas a 10% increase in the estimated capital cost would only reduce post-tax $NPV_{5\%}$ by ~$100M.

Figure 8: Project $NPV_{5\%}$ Sensitivity Analysis (A$M) – Post-tax



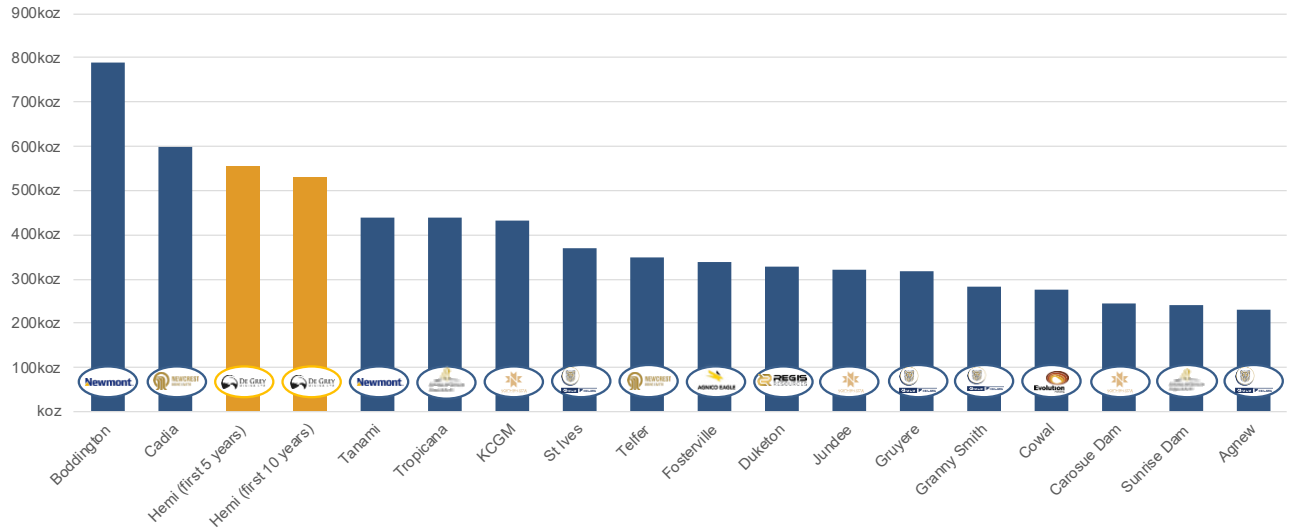
Project Positioning

The DFS has outlined that the Project will have potential to:

- Be a top five Australian gold mine based on FY23 production
- Be in the lowest AISC quartile for Australian gold projects producing above 200,000oz per annum in FY23
- Rank as one of the world's largest gold development projects based on annual production
- Rank in the lowest capital intensities of any large scale undeveloped global gold project

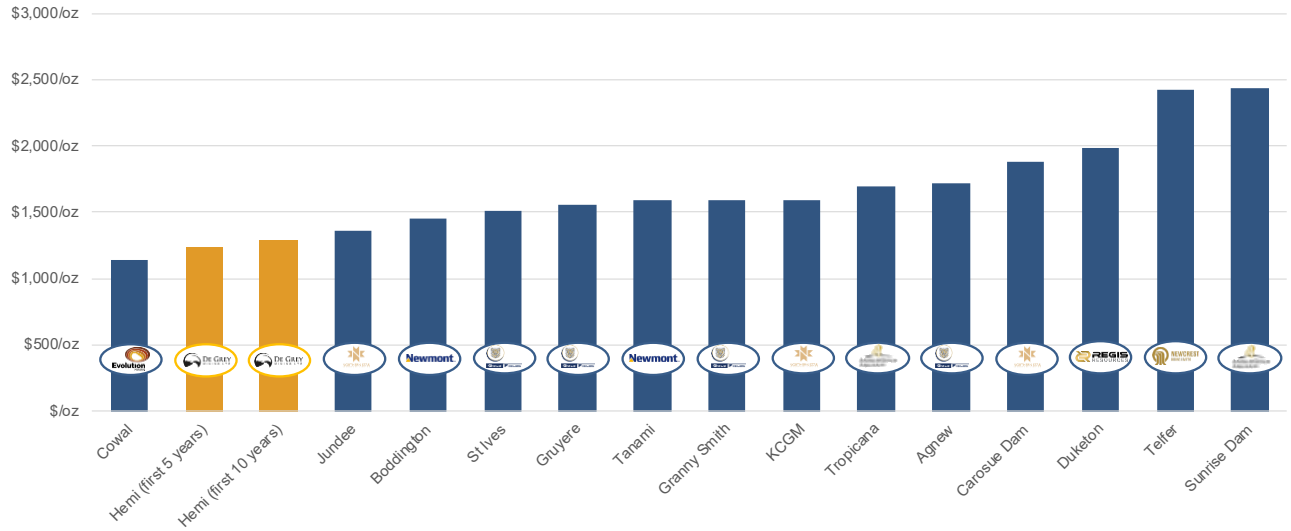
A comparison of the Project's DFS metrics based on these four categories follows in Figures 9 to 12.

Figure 9: Australian Gold Producer Annual Production FY23 (kozpa)



Comparison between Hemi DFS estimates and the FY23 production of Australian gold mines producing more than 200koz of gold per annum. Referencing contained in Appendices. The Hemi mine plan contains approximately 1% Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised.

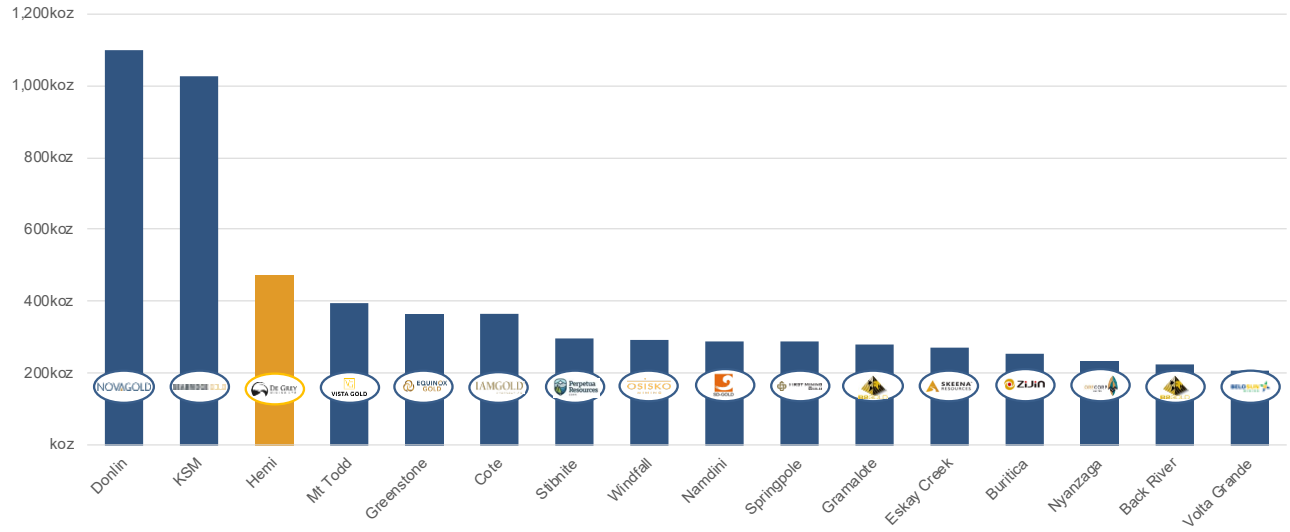
Figure 10: AISC for Australian Gold Mines FY23 ($/oz)



Comparison between Hemi DFS estimates and the average FY23 AISC of Australian gold mines producing over 200koz of gold per annum. Fosterville excluded from the comparison as Agnico Eagle do not disclose an AISC for the project. Cadia excluded from the comparison due to the significant copper credits. Referencing contained in Appendices. The Hemi mine plan contains approximately 1% Inferred Mineral Resources. There is a low level of geological confidence associated with

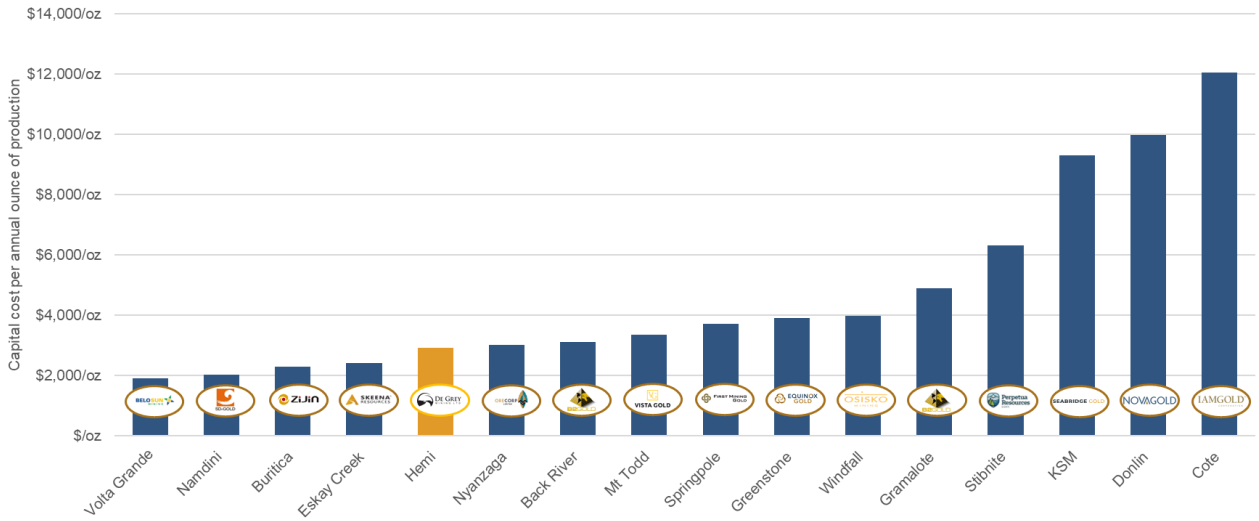
Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised.

Figure 11: World Gold Development Projects Scale (kozpa)



Comparison made between Hemi DFS estimates and current major non-producing gold development assets globally. Referencing contained in Appendices.

Figure 12: World Gold Development Projects Capital Intensity (A$/annual oz)



Comparison made between Hemi DFS estimates and current major non-producing gold development assets globally. Referencing contained in Appendices. The mine plan contains approximately 1% Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised.

Native Title, Community and Environment

Throughout the exploration and studies phase, the Company has developed a strong and collaborative relationship with the Kariyarra People, the Native Title holders and Traditional Owners on the land on which Hemi is located. Approximately 50,000ha of ethnographic and 16,400ha of archaeological surveys have been competed across the full Project area since 2018.

In December 2022 the Company signed a Native Title Mining Agreement (Agreement) with the Kariyarra People for Hemi. The Agreement formalises what is expected to be a close partnership with the Kariyarra people through the development and operation of Hemi.

The Agreement will provide pathways for employment, training and contracting for the Kariyarra People alongside the development of Hemi, as well as educational opportunities for young people.

A Cultural Heritage Management Protocol (CHMP) is included in the Agreement. This will ensure future development and operations at Hemi will minimise/avoid impact to Kariyarra cultural heritage. This includes the establishment of a Kariyarra-led ranger program to support Aboriginal cultural heritage on Kariyarra lands. The ranger program will ensure development of important land management processes and procedures enabling both parties to care for country in culturally sensitive ways whilst also sharing environmental knowledge and learning. In line with the CHMP, heritage surveys were recently completed over the entire planned Project disturbance footprint.

The Company has consulted widely in the Port Hedland and wider Pilbara communities throughout the studies phase. This has included proactive engagement with local business and government groups. These relationships will be important during the tendering, construction and operations phases where local businesses will be preferred, wherever feasible. In recognition of the Company's commitment to the region, it has entered into a partnership with the Town of Port Hedland for the investment into community projects, once Hemi reaches commercial production.

More than 30,000ha has been assessed for ecological value at Hemi as part of wide-ranging environmental surveys which have been ongoing for more than two years. Detailed studies have been completed across water management, soils and waste landform assessments, tailings management, flora and vegetation surveys and terrestrial and subterranean fauna assessments. In addition, a conceptual mine closure plan has been completed to ensure the sustainable closure of the operations in the future.

This work formed the basis of the federal referral lodged for Hemi in May 2023 in accordance with the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). This was followed by the submission of referral documentation under section 38 under Part IV of the *Environmental Protection Act 1986 WA* (EP Act) in June 2023. These referrals relate to the Hemi deposits and infrastructure. Additional approvals will be required for the Regional deposits.

The Project is one of the largest undeveloped gold projects on a global basis and will have low start-up and future carbon intensities respectively of 0.79 tonnes of CO_2 per annual ounce of gold production ($t.CO_2$/ozpa) for scope 1 and 2 reducing to approximately 0.49$t.CO_2$/ozpa by 2030 with further reductions in carbon intensity to be pursued. The early adoption of grid based renewable energy sources, augmented by site based renewable energy as appropriate, is planned with multiple options emerging within the North West Interconnected System.

Board Approval of Pathway to Production

The De Grey Board has endorsed the DFS outcomes and approved the following Project implementation activities:

- Ordering of long lead items on critical path
- Continue to refine the project execution plan
- Detailed engineering and design to a high confidence level before Project approvals
- Refining the developed contracting strategy
- Advancing major Project tenders
- Progress activities to support the Project execution schedule
- Progress and conclude Project financing

These approvals will enable the Project to maintain its strong momentum since the discovery of Hemi in late 2019 and facilitate a pathway for first production from this Tier 1 gold project in the second half of 2026.

The Board will be ready to consider a formal Final Investment Decision on the Project at the conclusion of the project financing and project approval processes, expected in the second half of 2024.

Project Approvals and Early Works

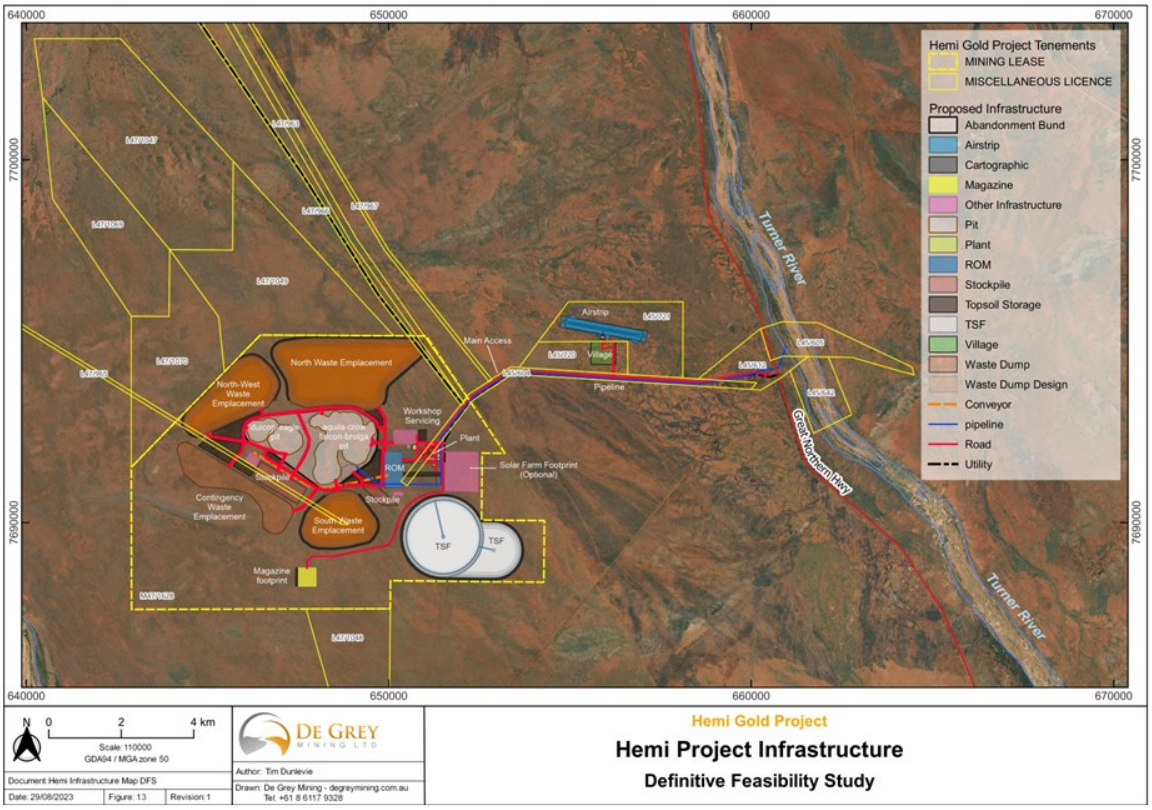
The Mining Agreement signed with the Kariyarra People in December 2022 covers all Hemi resources and the Project's infrastructure footprint including plant and accommodation, tailings storage facilities and waste dumps.

In September 2023, the Company was granted the Mining Lease for Hemi by the Western Australian Department of Mines, Industry Regulation and Safety (DMIRS). Similarly, the Mining Lease (M47/1628) covers the Hemi deposits, proposed mining area and processing plant site (Figure 13). The granting of the Mining Lease represented an important milestone for the Company and de-risking of the Project on the path toward development and production.

In May 2023, a federal referral was lodged for Hemi in accordance with the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act). This was followed by the submission of referral documentation under section 38 under Part IV of the *Environmental Protection Act 1986 WA* (EP Act) in June 2023.

The Company advises that the grant of the Hemi Mining Lease does not allow for the commencement of full construction of the Project which remains subject to statutory, including environmental, approvals. It is expected that all statutory and environmental approvals are expected to be received early in the second half of 2024.

Figure 13: Hemi Infrastructure Layout Showing Granted Mining Lease Location



Project Delivery Capability

The Company maintains its firm commitment to build its organisational capability to take the Project from the exploration/studies phase, through project construction, commissioning and into operations. A strategic workforce plan has been developed to build the owner's team to achieve this objective and a hiring process is well underway.

Peter Holmes was appointed Hemi Project Director in February 2023 and has played a central role in the completion and delivery of the DFS. Mr Holmes is a highly experienced project development, operational readiness and corporate mining executive with over 30 years of experience in the gold mining industry including with senior roles with Barrick Gold Corporation (Barrick) and Placer Dome Asia Pacific (Placer). As Senior Director of Project Execution for Barrick, he oversaw approximately $9 billion in construction projects including the completion and handover of the Pueblo Viejo gold project, one of the world's largest pressure oxidation plants.

Senior hires have been made in the Project team working under Mr Holmes in roles across mining, metallurgy, hydrology, procurement and contracts management. Ongoing recruitment in accordance with the workforce planning schedule is underway to support the execution and delivery of the Project. The location of the Project in a Tier 1 mining region is expected to assist with accessing a skilled workforce.

The team has been supported by experienced technical consultants who are leaders in their fields of hydrogeology, mine design, process design including pressure oxidation and tailings management. These consultants will continue to support the Project going forward.

The Project team is being supported more broadly by the development and implementation of governance and management systems designed to ensure compliance with regulatory requirements and sustainability commitments.

Funding

Formal engagement with project financiers commenced in late 2022 which has been very positive to date, including the provision of non-binding indicative terms for potential project financing earlier this year based on the PFS outcomes. Financiers will now be provided with the detailed DFS outcomes to facilitate final structuring of a project financing package. De Grey has appointed Azure Capital as its project debt advisor and Wright Legal as its debt funding legal advisor.

Hemi's high confidence production profile, the detailed technical work completed to a DFS standard and the attractive financial outcomes provide a strong platform for De Grey to source traditional financing through debt and equity markets, or other potential alternative funding sources (e.g. royalties) to the extent these can provide enhanced returns to shareholders without increasing the risk profile.

De Grey has formed the view that there is a reasonable basis to believe that requisite future funding for development of the Project will be available when required. The grounds on which this reasonable basis is established includes:

- Outstanding financial metrics of the DFS including an unleveraged payback period of under two years and one of the lowest capital intensities of a gold project of this scale on a global basis
- The Company has a strong track record of successfully raising equity funds as and when required to further the exploration and development of the Project
- Global debt and equity finance availability for high-quality gold projects remains robust. This is evidenced by the fully underwritten capital raising of $300M undertaken in conjunction with the release of the DFS
- De Grey has a current market capitalisation of approximately $1.8 billion and no debt. The Company has an uncomplicated, clean corporate and capital structure. De Grey owns 100% of the Hemi Gold Project, located in Western Australia, which is a Tier 1 project in the top jurisdiction in the Fraser Institute's Investment Attractiveness Index. These are all factors expected to be highly attractive to potential financiers, including traditional debt and equity investors, as well as potential counterparties interested in joint ventures, royalties or other alternative funding structures
- The De Grey Board and management team has extensive experience in mine development, financing and operations in the resources industry

It is anticipated the project financing process will be concluded in 2024, allowing the De Grey Board to consider a Final Investment Decision (FID) leading to the start of construction.

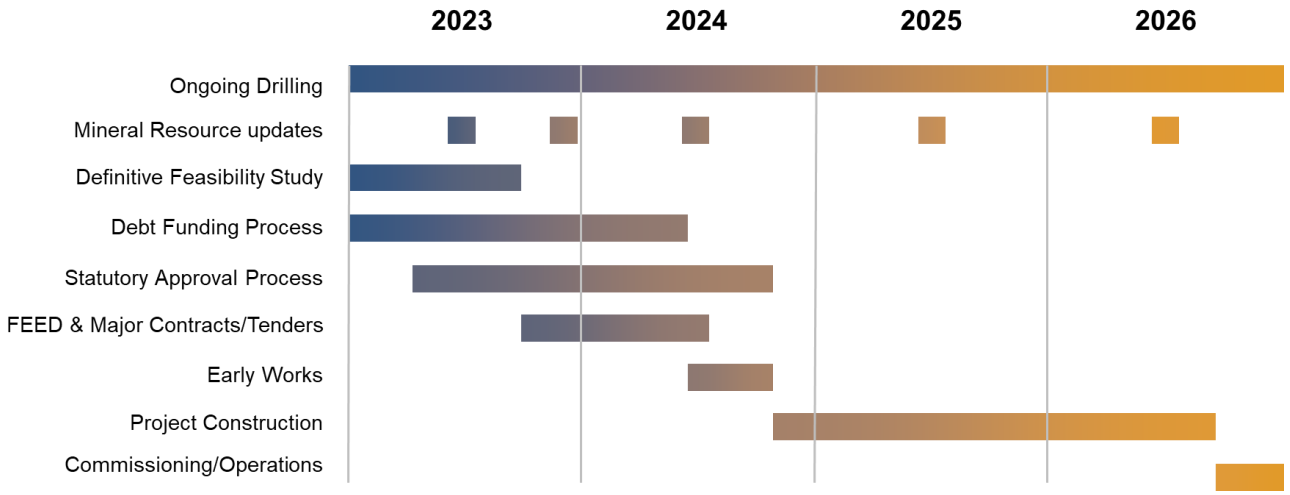
Project Timeline

As previously noted, ordering of long lead items on critical path, continuing to refine the project execution plan, detailed engineering and design to a high confidence level before project approvals, refining the contracting strategy, advancing major project tenders and progressing activities to support the project execution schedule will all commence this year following delivery of the DFS. This will enable the Project to be significantly de-risked ahead of FID and the start of construction.

Completion of the statutory approvals processes is expected to be the key determining factor in the timing of FID. The Company believes it has submitted referrals to a high standard which reflects its respect for these processes. The timing of the receipt of final statutory approvals is subject to several factors and is therefore uncertain, however the Company believes it has a reasonable basis to provide indicative guidance for receipt of these approvals in the second half of 2024.

Based on this timeline, full construction activities expected to commence at Hemi in the second half of 2024 and, based on an estimated two year construction period, first gold pour at Hemi is targeted for the second half of 2026.

Figure 14: Indicative Project Timeline



Key Risks

There are unknown risks and uncertainties which could have a material adverse effect (see the presentation released after this announcement); this should not be considered an exhaustive list, but the key risks include:

Funding risks

In the future, the Company will be required to raise additional funds (whether by way of debt and/or equity), so as to:

- carry out additional exploration activities at its projects;
- undertake the development of a mining and processing operations subject to approvals; and
- fund corporate, administrative and working capital needs.

The Company has undertaken a Project Financing Process based on the PFS capital numbers. This process indicated an average of $800 million debt based on non-binding indicative offers. The Company is currently updating these numbers based on the DFS and then plans to finalise credit approved terms sheets in FY2024. The ability of the Company to fund part of its future funding requirements in equity will be dependent upon its continued capacity to access capital market funding sources via equity markets. Funding via additional equity issues may be dilutive to the Company's existing shareholders and, if available, debt financing may be subject to the Company agreeing to certain debt covenants and other terms and conditions.

Approvals risks

The Company has already received mining tenure as well as having executed Mining Agreements with the Kariyarra People and Indee Station Pastoral owner.

A referral to the Federal Government under the EPBC Act was submitted to DCCEEW on 15 May 2023 due to the presence of Matters of National Environmental Significance (MNES). A fauna management plan was provided to DCCEEW as part of the referral documentation to enable DCCEEW to make an assessment based on preliminary documentation. Once the application has been validated and published for public comment, DCCEEW will provide the Company with a determination.

A referral to the Western Australian Government under Section 38 of the EP Act was submitted to the EPA on 8 June 2023, where it is considered likely to be assessed. The Company has strategically completed a substantial amount of environmental and social impact assessment work prior to submitting the referral with the aim to achieve an Assessment on Referral Information (ARI).

There are various levels of assessment with respect to an ARI. They are:

- Assessment of referral information;
- Assessment of referral information, with the provision of additional information as requested by the EPA; and
- Assessment of referral information, with or without additional information, with public review.

Assuming the Project is determined as ARI and the provision of additional information is accepted, all statutory and environmental approvals are expected to be received early in the second half of 2024.

There is a risk that approvals could be delayed, which would delay the commencement of full construction of the Project.

Construction and operations workforce risks

The Company has undertaken early engagement with contractors for the mining and construction of the Project and had strong engagement of potential equipment suppliers, constructors and contractors. The Company has also undertaken a workforce planning process to identify and recruit key personnel in advance of the Project startup. The execution of this plan is underway and the Company has been very successful in attracting high quality personnel for the Project, due to the quality and location of the Project. The current market for construction is tight and this has the risk of delaying the Project should the Company not be able to attract constructors who have sufficient workforce resources to construct the Project within the expected timeframe.

Fortunately, through early engagement the Company has receive significant interest in all areas of the Project. The Company is confident it will attract the resourcing to be available when needed to construct the Project. In addition, the Company has an accommodation development plan with a view to ensuring sufficient accommodation in place when required for construction.

Supply chain risks

The Company has identified the key supply risks for both the construction and operations of the Project. The key contracts for equipment have been identified and lead times established. Long lead item tenders have been prepared and the time critical ones issued. The first long lead item for the communication circuit is due within the next month. The other critical supply contracts are the Power Purchase Agreement (PPA) and the oxygen supply. Both items are currently being negotiated and in respect to the PPA, there are three parties who are currently in negotiation with the Company. For commercial reasons these negotiations are confidential, however the Company is very confident that due to the proximity of the project to the NWIS power grid, power will be available when required. However, if power or oxygen are not available, this would delay the startup.

Environmental and climate risks

The operations and proposed activities of the Company are subject to State and Federal laws and regulations concerning the environment. As with most exploration projects and mining operations, the Company's activities are expected to have an impact on the environment, particularly if advanced exploration or mine development proceed. It is the Company's intention to conduct its activities to the highest standard of environmental obligation, including compliance with all environmental laws. The flora and fauna surrounding the Project may require certain adjustments to Project planning.

Mining operations have inherent risks and liabilities associated with safety and damage to the environment and the disposal of waste products occurring as a result of mineral exploration and production. The occurrence of any such safety or environmental incident could delay production or increase production costs. Weather events, such as unpredictable rainfall or bushfires may impact on the Company's operations and ongoing compliance with environmental legislation, regulations and licences.

There is a risk that environmental laws and regulations become more onerous making the Company's operations more expensive than anticipated. Approvals are required for land clearing and for ground disturbing activities. Delays in obtaining such approvals can result in the delay to anticipated exploration programmes or mining activities.

Climate change is a risk that the Company has considered, particularly related to its operations in the mining industry. The climate change risks particularly attributable to the Company include the emergence of new or expanded regulations associated with the transitioning to a lower carbon economy and market changes related to climate change mitigation. The Company may be impacted by changes to local or international compliance regulations related to climate change mitigation efforts, or by specific taxation or penalties for carbon emissions or environmental damage. Climate change may cause certain physical and environmental risks that cannot be predicted by the Company.

Water management is also a key risk that the Company has considered, but this has been partially de-risked during the DFS.

As part of the EPA submission the Company submitted a Greenhouse Gas Management Plan where a detailed analysis of the Company's Scope 1,2 and 3 emissions were modelled and a GHG emission reduction plan was designed.

This announcement has been authorised for release by the De Grey Board.

For further information, please contact:

COMPETENT PERSON STATEMENTS

Exploration Results

The information in this report that relates to Exploration Results is based on, and fairly represents information and supporting documentation prepared by Mr. Phil Tornatora, a Competent Person who is a Member of The Australian Institute of Geoscientists. Mr. Tornatora is an employee of De Grey Mining Limited. Mr. Tornatora has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr. Tornatora consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report relating to Exploration Results has been extracted from the Company's previous ASX announcements, including the ASX announcements listed on slide 64 of the investor presentation lodged with ASX on 28 September 2023. Copies of these announcements are available at www.asx.com.au or https://degreymining.com.au/asx-releases/. DEG confirms that it is not aware of any new information or data that materially affects the information included in those announcements.

Ore Reserves - Hemi

The information in this report that relates to Ore Reserves at the Hemi Gold Project is based on and fairly represents information and supporting documentation compiled by Mr Quinton de Klerk, a Competent Person who is a full-time employee of Cube Consulting Pty Ltd, a company engaged by De Grey. Mr de Klerk is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr de Klerk has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 JORC Code). Mr de Klerk consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resources - Hemi and Toweranna

The Information in this report that relates to Hemi Mining Centre and Toweranna Mineral Resources is based on information compiled by Mr. Michael Job, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Job is a full-time employee of Cube Consulting. Mr Job has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Job consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resources - Regional

The Information in this report that relates to Wingina and Withnell Mining Centre Mineral Resources (excluding Toweranna) is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services. Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Payne

consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resources

This announcement contains estimates of DEG's Mineral Resources. The information in this presentation that relates to DEG's Mineral Resources has been extracted from DEG's previous ASX announcements including:

1. ASX Announcement "Mallina Gold Project Resource Statement – 2023" dated 15 June 2023
2. ASX Announcement "Mallina Gold Project Preliminary Feasibility Study Outcomes" dated 8 September 2022
3. ASX announcement "Mallina Gold Project Resource Statement" dated 31 May 2022
4. ASX announcement "Mallina Gold Project Scoping Study" dated 5 October 2021
5. ASX announcement "6.8Moz Hemi Maiden Mineral Resource drives MGP to 9.0Moz" dated 23 June 2021

Copies of these announcements are available at www.asx.com.au or https://degreymining.com.au/asx-releases/. DEG confirms that it is not aware of any new information or data that materially affects the information included in those announcements and, in relation to the estimates of DEG's Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the announcements continue to apply and have not materially changed. DEG confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from those announcements.

FORWARD LOOKING STATEMENTS

These materials prepared by De Grey Mining Limited (or the "Company") include forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events, or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to

place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant securities exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Appendix A – Peer Comparison Sourcing

Australian Peers

Asset	Owner	Production[1] (koz)	AISC[1] ($/oz)	Source
Cadia	Newcrest	597	67	https://www.newcrest.com/sites/default/files/2023-07/230725_Newcrest%20Jun%202023%20Quarterly%20Report.pdf
Telfer		349	2,431	
KCGM	Northern Star	432	1,596	https://www.nsrltd.com/investor-and-media/asx-announcements/2023/july/quarterly-activities-report-june-2023
Jundee		320	1,365	
Carosue Dam		243	1,885	
Boddington	Newmont	791	1,454	https://s24.q4cdn.com/382246808/files/doc_financials/2023/q1/Newmont-Q1-2023-Operating-Statistics_Final.pdf https://s24.q4cdn.com/382246808/files/doc_earnings/2023/q2/generic/Newmont-Q2-2023-Operating-Statistics_Final.pdf https://s24.q4cdn.com/382246808/files/doc_financials/2022/q4/Newmont-Full-Year-and-Fourth-Quarter-2022-Operating-Statistics_Final2.pdf https://s24.q4cdn.com/382246808/files/doc_financials/2022/q3/Newmont-Q3-2022-Operating-Statistics_Final.pdf
Tanami		440	1,588	
Duketon	Regis	327	1,987	https://wcsecure.weblink.com.au/pdf/RRL/02690440.pdf https://wcsecure.weblink.com.au/pdf/RRL/02588678.pdf https://wcsecure.weblink.com.au/pdf/RRL/02623814.pdf https://wcsecure.weblink.com.au/pdf/RRL/02658247.pdf
Tropicana[2]	AngloGold	439	1,692	https://thevault.exchange/?get_group_doc=143/1691118404-AGA-Interim-2023-Results-Report.pdf https://thevault.exchange/?get_group_doc=143/1677005072-YearEnd2022-Resultsreport.pdf
Sunrise Dam		242	2,433	
Cowal	Evolution	276	1,138	https://evolutionmining.com.au/wp-content/uploads/2023/07/2580138_June-2023-Quarterly-Report.pdf
St Ives	Gold Fields	371	1,513	https://www.goldfields.com/pdf/investors/quarterly-reports/2022/ops-updated-q3-2022.pdf https://www.goldfields.com/reports/q4-2023/pdf/booklet.pdf https://www.goldfields.com/reports/q2-2023/review-of-operations.php
Gruyere		317	1,552	
Granny Smith		284	1,591	
Agnew		230	1,718	
Fosterville	Agnico Eagle	339	N/A	https://s21.q4cdn.com/374334112/files/doc_news/news_documents/2023/2023-Q2_AEM-Results_2023-07-26-Final.pdf https://s21.q4cdn.com/374334112/files/doc_news/news_documents/2023/2023-Q1_AEM-Results-Final-2023-04-27.pdf https://s21.q4cdn.com/374334112/files/doc_news/news_documents/2023/2022-Q4_AEM-Results-2023.02.16-FINAL.pdf https://s21.q4cdn.com/374334112/files/doc_news/news_documents/2022/2022-Q3_AEM-Results-2022.10.26.pdf

1. Comparison made between Hemi DFS estimates and Australian gold mines currently producing over 200koz of gold per annum. Hemi is not currently in production. USD:AUD 0.67 and USD:CAD 0.74.
2. For Tropicana (70% AngloGold / 30% Regis Resources) and Gruyere (50% Gold Fields / 50% Gold Road Resources), production and AISC figures have been obtained from the company managing the operations of the project (AngloGold and Gold Fields respectively).

Global Peers

Asset	Owner	Forecast LOM production (koz pa)	Capex (US$m)	Capex ($m)	Capital Intensity (capex $/oz pa)	Source
Namdini	Shandong	287	390	579	2,018	https://www.cardinalresources.com.au/wp-content/uploads/2019/11/25-Nov-2019-Cardinals-Namdini-FS-NI-43-101-DRAFT-locked.pdf-v2-3461-9335-8606-v.6.pdf-rs.pdf
Volta Grande	Belo Sun	205	264	392	1,911	https://www.belosun.com/staging/belosun.com/_resources/Feasibility-Study-Volta-Grande-Project.pdf
Eskay Creek	Skeena	269	438	650	2,418	https://skeenaresources.com/site/assets/files/6532/eskay_creek_ni_43-101_technical_report_and_fs_amended_sept_19_2022.pdf
Buritica	Zijin	253	389	578	2,284	https://www.continentalgold.com/continental-gold-announces-a-positive-feasibility-study-for-the-buritica-project-2/
Windfall	Osisko	294	789	1,171	3,979	https://www.osiskomining.com/projects/windfall/
Nyanzaga	OreCorp	234	474	704	3,008	https://orecorp.com.au/upload/documents/investor/asx/220822002319_220822-DFSAnnouncementFinal.pdf
Mt Todd	Vista	395	892	1,324	3,353	https://www.vistagold.com/images/pdf/technical_reports/2022/John_Rozelle_-_VG-Mt_Todd_NI_43-101_FS_021722_1.pdf
Back River	Sabina	223	466	692	3,103	https://minedocs.com/21/Back_River-CP-032021.pdf
Springpole	First Mining	287	718	1,066	3,715	https://firstmininggold.com/_resources/presentations/corporate-presentation.pdf
Greenstone	Equinox	366	963	1,429	3,906	https://www.equinoxgold.com/wp-content/uploads/2023/01/2021-Hardrock-1.pdf
Gramalote	B2Gold	281	925	1,373	4,888	https://www.b2gold.com/news/2021/b2gold-reports-strong-q1-2021-results-quarterly-total-gold-production-of-220644-oz-9-above-budget-cash-operating-costs-and-all-in-sustaining-costs-lower-than-budget
Stibnite	Perpetua	297	1,263	1,875	6,314	https://perpetuaresources.com/wp-content/uploads/Perpetua-Resources_Investor-Presentation_September-2023_FINAL.pdf
Cote	IAMGOLD	365	2,965	4,402	12,061	https://s202.q4cdn.com/468687163/files/doc_downloads/2022/08/SLR-IAMGOLD-C%C3%B4t%C3%A9-FINAL-NI-43-101-12-Aug-2022.pdf
KSM	Seabridge	1,027	6,432	9,550	9,299	https://assets.website-files.com/5f8f6760f825687e7c1c6508/64505953a7feaf21e2436163_AR2022_final_spread.pdf
Donlin	Novagold	1,100	7,402	10,990	9,991	https://www.novagold.com/_resources/reports/S-K-1300.pdf

Comparison made between Hemi DFS estimates and current major non-producing gold development assets globally. Exchange rates: USD:AUD 0.67 and USD:CAD 0.74.

DE GREY MINING LTD

HEMI GOLD PROJECT

DEFINITIVE FEASIBILITY STUDY

SEP 2023

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De Grey acknowledges the Traditional Custodians of the land upon which we operate, Kariyarra, Ngarluma, Nyamal, Ngarla, Mallina and Whadjuk Noongar peoples. We recognise their unique cultural heritage, beliefs and connection to these lands, waters and communities.

We pay our respects to all members of these Aboriginal and Torres Strait Islander communities, and to Elders past, present and emerging. We also recognise the importance of continued protection and preservation of cultural, spiritual and educational practices.

1 EXECUTIVE SUMMARY

Summary

De Grey Mining Ltd ("De Grey" or "Company") is a Western Australian based exploration company listed on the Australian Securities Exchange ("ASX:DEG").

In 2019, De Grey had a portfolio of tenement packages in the Pilbara region of Western Australia that contained a Mineral Resource Estimate ("MRE") of 2.2 million ("M") ounces ("oz") of gold ("Au").

In 2023, less than four years later, De Grey has defined a JORC compliant Ore Reserve Estimate of more than 6.0 Moz Au at the Hemi Gold Project ("Project" or "Hemi") and has completed a Definitive Feasibility Study ("DFS") for the Project that proposes the development of a 10 million tonnes per annum ("Mtpa") gold processing plant to produce approximately 529,600 oz Au per annum for the first ten years of a 12 year mine life at an All In Sustaining Cost ("AISC") of $ 1,295 /oz Au.

The Net Present Value[1] ("NPV") for the Project is $4.2 billion pre-tax and $2.9 billion post-tax at an Internal Rate of Return ("IRR") of 45 % pre-tax and 36 % post-tax, with a 1.5 year payback pre-tax and 1.8 year post-tax of the $1,298 M Project development capital (inclusive of $162 M of growth allowance and contingency). Hemi's Ore Reserve represents 99 % of the gold production during the first ten years.

The DFS assessed the technical requirements, environmental and social impacts, and financial robustness of the Project and determined that the development of the Project is viable from a technical, environmental, social, and financial standpoint.

In conjunction with the undertaking of the DFS, De Grey has also achieved the following milestones:

- On 15 December 2022, the Kariyarra People and De Grey signed a Native Title Agreement that will promote a mutually respectful and beneficial relationship during the development and operational phases of Hemi and into the future. Hemi, which is the subject of this Study is located on Kariyarra Country;
- On 15 May 2023, De Grey submitted Project approval applications to the Department of Climate Change, Energy, the Environment and Water ("DCCEEW") of the Commonwealth Government of Australia ("Commonwealth");
- On 8 June 2023, De Grey submitted Project approval applications to the Environmental Protection Authority ("EPA") of the State Government of Western Australia ("State");
- On 8 September 2023, Hemi's mining lease (M47/1628) was granted.

The world class Hemi Gold Project was discovered in 2019 and after an extensive drilling programme was completed during 2020 and 2021, a maiden MRE of 6.8 Moz Au was announced in June 2021. A Scoping Study ("Scoping 2021") was completed in July 2021 with a Pre Feasibility Study ("PFS 2022") subsequently completed in September 2022.

[1] *NPV is pre-tax and calculated at a 5 % discount rate. Gold Price of A$2,700 /oz*

Table 1.1 shows the key gold production parameters from the DFS for the Hemi Gold Project.

Table 1.1: Key Gold Production Parameters from the Hemi Gold Project DFS

Scenario	Throughput[1]	Gold Grade	Gold Recovery	Average Gold Production[1]	% Ore Reserve	Strip Ratio[2]
	Mtpa	g/t Au	%	oz Au/annum	%	waste:ore
Years 1 to 5 (Hemi Only)	10.3	1.76	94.3	552,760	99	6.6
Years 1 to 10 (Hemi Only)	**10.3**	**1.69**	**94.1**	**529,600**	**99**	**6.5**
LOM (Hemi Only 11.8 years)	10.3	1.54	93.5	5,657,951[2]	99	6.6

Notes *1. Design Throughput is 10.0Mtpa for Fresh Ore. 10.3Mtpa is achieved from the blending of softer oxide ore*
2. LOM Total Recovered Ounces are shown

The DFS production and financial parameters presented above exclude De Grey's existing Regional Mineral Resource Estimate and Ore Reserves as well as any potential for upside to the Project resulting from further exploration at Hemi and across other De Grey tenements that form part of the Company's overall Pilbara Gold Province.

Preliminary mine schedule iterations have been run and show that the inclusion of only Toweranna ore and only in Year 8 to Year 10 of the Hemi production schedule would increase the average annual gold production in the first ten years from Hemi to 542,225 oz Au /annum and extend the mine life to 13.5 years. Toweranna has a JORC Indicated MRE of 429,000 oz Au.

De Grey has a Regional MRE of 2.2 Moz Au as at June 2023 across the Pilbara Gold Province and intends to advance studies for all of its Regional assets over the next 12 months. Table 1.2 shows the key gold production parameters for the Project based on a preliminary mine schedule with Hemi plus Toweranna ore included from Year 8 to Year 10.

Table 1.2: Key Gold Production Parameters for the Hemi Gold Project with Toweranna Ore

Scenario	Throughput[1]	Gold Grade	Gold Recovery	Average Gold Production[1]	% Ore Reserve	Strip Ratio[2]
	Mtpa	g/t Au	%	koz Au / annum	%	waste:ore
Year 1 to 10 (with Toweranna)	10.3	1.74	93.4	**542,255**	99	6.7

Notes *1. Design Throughput is 10.0Mtpa for Fresh Ore. 10.3Mtpa is achieved from blending of softer oxide ore*
2. Toweranna is only included in mine schedule from Year 8 to Year 10

Opportunities and Contingency

The DFS has addressed all aspects of the Hemi Gold Project in a robust manner, ensuring that well proven mining engineering and process engineering principles underpin the development.

In numerous areas, a conservative and / or contingent approach has been taken to mitigate associated risk in that particular area or technical discipline of the Project.

These conservative and / or contingent approaches to the Project include but are not limited to the following:

Mining

- Pit shell optimisations only targeted Indicated Resources / Ore Reserves and not Inferred Resources;
- First ten years of gold production has 99 % of material classified as Ore Reserves;
- The mine schedule has conservative vertical advance rates of 10 m per month in the transported cover (where no grade control or fragmentation is required) and 5 m per month in bedrock;
- Twelve months of mine dewatering is required prior to the commencement of mining, however 15 months of mine dewatering has been included in the schedule;
- Six months is required to establish Stage 1 of the tailings storage facility, however nine months has been included in the scheduled;
- More than ten times the quantity of suitable clay required for the tailings storage facility is accessible in the first nine months of the mine schedule;
- A 10 m bench height is feasible in the majority of areas of the mine for the drill and blast component, however a greater quantity of 5 m benches have been incorporated so as to ensure that drill and blast requirements and costs are conservatively estimated;
- The use of an experienced mining contractor mitigates the risk in achieving the required mining rate of 90 Mtpa,

Processing

- The processing flowsheet consists of a conventional, well proven and robust comminution and carbon in leach (“CIL”) gold circuit flowsheet that includes flotation and pressure oxidation;
- A thorough and representative sampling program was completed with an 80th percentile applied to the Bond work indices of the most competent deposit for comminution power requirements;
- The gold recovery modelling assumes a P_{80} grind size of 106 µm whilst the comminution circuit is designed to achieve a P_{80} grind size of 75 µm. In addition to this, the gold recovery model has further inbuilt conservativeness;
- The risk in not achieving the relatively conservative 88.0 % utilisation target for the pressure oxidation circuit is mitigated via the installation of 72 hours of concentrate slurry storage capacity between the flotation concentrate stream and the autoclaves. This concentrate slurry storage capacity allows for unplanned maintenance of the autoclave/s, including depressurisation without the need to shut down the comminution, flotation, or CIL circuits;
- The design utilisation target of 91.3 % for the comminution circuits is also considered conservative. This is, in part, due to the inclusion of a crushed ore stockpile ahead of the HPGR and ball milling circuit and the ease of maintenance and extended life of wear parts in the current

generation of HPGRs, with tyre changeout intervals significantly increasing from approximately 1,000 hours when first introduced to the industry nearly 15 years ago, to current intervals of more than 8,000 hours;

- A second continuous pressure oxidation pilot plant testwork program, originally scheduled as part of the operational readiness phase, was mostly completed during the DFS phase, providing additional data and enabling earlier detailed engineering of the pressure oxidation circuit;
- The flotation circuit consists of a simple rougher / scavenger arrangement with no requirement for a cleaner circuit;
- The processing plant has been designed with allowance (in terms of footprint capacity) for expansion of the respective circuits should that be deemed advantageous;
- Tenders for the major crushing and grinding equipment have been received and are currently being assessed, which will allow for selection of the successful bidder and for detailed engineering to progress ahead of the project schedule requirements;
- Opportunities for utilising the 15 m x 15 m x 40 m highway transport capacity limits from Port Hedland to Hemi have not been factored into the capital cost estimate or project construction schedule;
- Availability of raw materials (sand and gravel) on site and blue metal and cement within close proximity have not been fully factored into the capital cost estimate;
- An average of 6 % growth allowance and 8 % contingency have been included in the capital cost estimate;
- The processing plant construction schedule includes a three month contingency time frame.

Infrastructure

- The assessment of three viable power supply providers for the Project is at an advanced level with potential connection to the North West Interconnected Grid (“NWIS”) providing a pathway to decarbonisation;
- The village accommodation is at 50 % design with the tender process nearly complete mitigating the scheduling timeframe risk the for this aspect of the Project.

Gold Production

- The Regional MRE of more than 2.2 Moz Au has not been included in the Project. The ability to now progress the respective studies for these Regional deposits to more advanced levels provides a significant opportunity to increase the gold production profile of De Grey and Hemi;
- The conservatism in the grinding power calculations and gold recovery modelling provides opportunity to increase plant throughput, gold recovery and as a consequence, overall gold production;
- There has been negligible, if any, exploration drilling during the past 2 ½ years due to the requirements of the respective study phases for the purposes of resource infill, geotechnical, geochemical, hydrogeological and metallurgical assessment across the Hemi area;
- The processing plant design has incorporated at negligible cost the potential to readily expand to a throughput rate of 15 Mtpa or more, should existing Regional resources, or additional resources identified as part of the recommencement of exploration drilling activities be included in the production schedule.

DFS Recommendations

The recommendations of this DFS are, subject to approval from the De Grey Board:

- Finalise tender documentation for the undertaking of mining operations at Hemi by a mining contractor;
- Finalise tender documentation for the engineering and construction of the processing plant;
- Finalise tender documentation for the non-process infrastructure components of the Project;
- Finalise the strategy and documentation for the financing of the Project;
- Approve the updated Long Lead Items ("LLI") and Front End Engineering Design ("FEED") timing and payment schedules; and
- Provide the outcomes of the aforementioned recommendations to the De Grey Board in the first half of 2024 so that a Final Investment Decision ("FID") can be made, subject to financing and Project approval.

Favourable outcomes of the recommendations outlined above would allow for Project construction to commence in the second half of calendar year of 2024 (subject to regulatory approval), followed by the commissioning and operating phases, with potential for first gold production in the second half of calendar year 2026.

Project Location and Existing Infrastructure

The Project is located approximately 85 km by road south of Port Hedland in the Pilbara region of Western Australia. Existing infrastructure capable of servicing the Project includes:

- Two lane bitumen highways, the Great Northern Highway and North West Coastal Highway;
- Two independent network grid power supplies, inclusive of the South Hedland to Karratha 220 kV power transmission line, the alignment of which is approximately 30 km from the Project site;
- The port of Port Hedland, a bulk export and materials importation facility;
- The international airport at Port Hedland;
- Existing combined mobile (cell) tower and optic fibre / wireless communications.
- Two gas pipelines, the Pilbara Energy gas pipeline and the Wodgina Mine gas lateral;

Figure 1-1 shows the location of the Project in relation to Port Hedland in Western Australia and Figure 1-2 shows the Hemi DFS infrastructure layout with an outline of the granted Mining Lease.

Figure 1-1: Project Location and Infrastructure Map

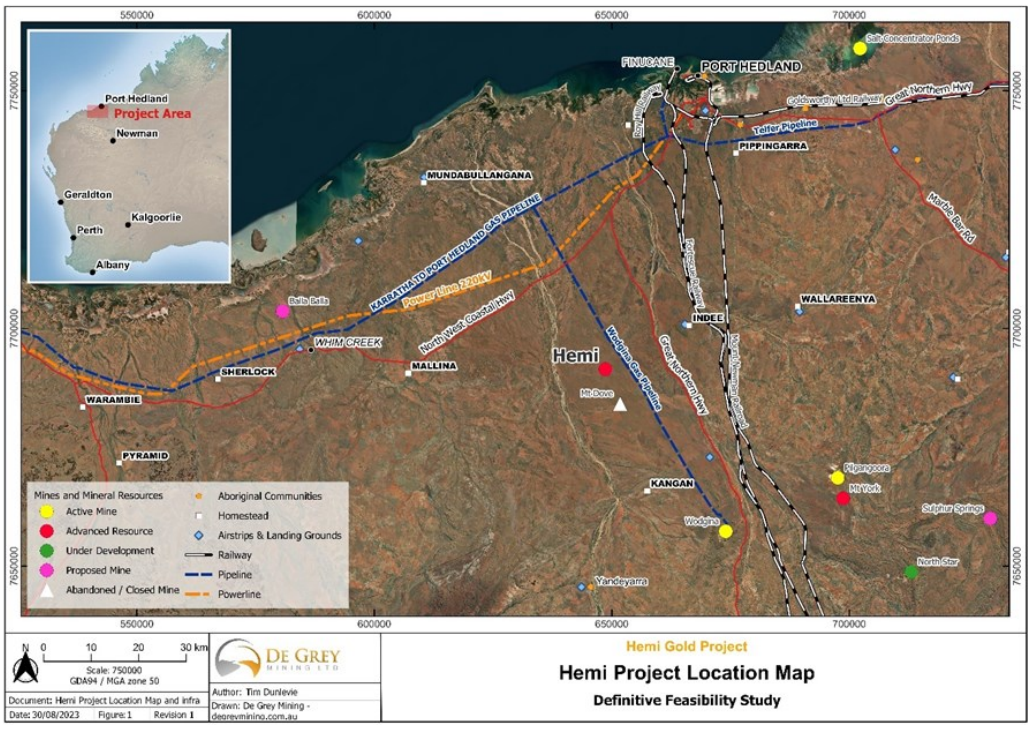
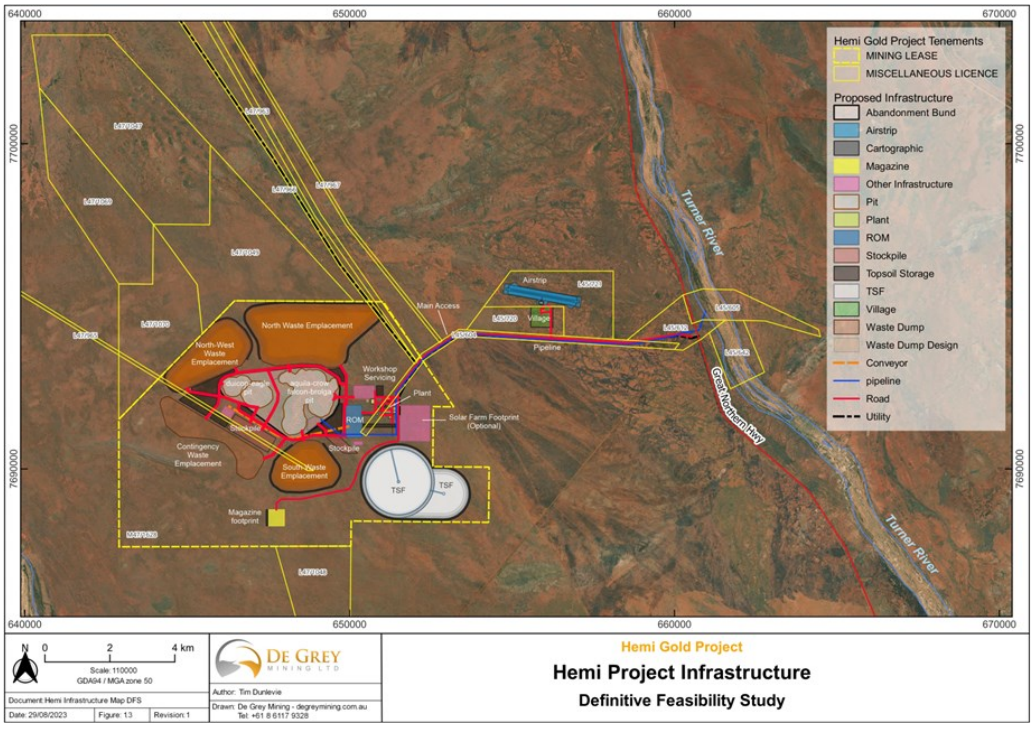


Figure 1-2: Hemi DFS Infrastructure Layout Showing Granted Mining Lease Location



Study Contributors

De Grey personnel and external consultants contributed to a combination of desktop assessments, field work, field surveys, laboratory testwork programs and subsequent analysis to complete the various components of this Study.

Lead Consultants

▪ Mining	*Cube Consulting*	
▪ Processing	*Wood PLC*	
▪ Environment	*RPM Global*	

Discipline Consultants

▪ Geology and Resource Estimation	*De Grey Mining*	
	Cube Consulting	
	WSP	*(Independent Audit)*
▪ Geotechnical	*MineGeoTech*	
	Peter O'Bryan & Associates	*(Technical Review)*
▪ Geochemical	*SRK Consulting*	
▪ Hydrogeological	*Geowater Consulting*	
	Jurassic Groundwater	*(Technical Review)*
▪ Hydrological	*Surface Water Solutions*	
▪ Mining Engineering	*De Grey Mining*	
	Cube Consulting	
▪ Mine Cost Estimation	*Mining Contracting Companies*[2]	
	Mining Plus	
▪ Metallurgy*[3]	*De Grey Mining*	
	ALS Metallurgical	
	Sherritt Laboratories	
▪ Process Engineering	*Wood PLC*	
	Process Plants International	*(Technical Review)*
▪ Tailings Storage Design	*CMW Geosciences*	
	L&MGSPL	*(Technical Review)*
▪ Environmental*	*RPM Global*	
▪ Social and Community	*De Grey Mining*	
	Umwelt	
▪ ESG	*Wood PLC*	
▪ Power Supply	*ECG Engineering*	
▪ Water Management	*JNA Consulting*	
▪ Village Design & Cost Estimation	*McNally Group*	
	ADD Business Group	
▪ Airstrip Design	*Aerodrome Management Services*	

Tenure

De Grey has 100 % ownership of the Hemi Gold Project area on which mining lease application M47/1628 was granted on 8 September 2023. The mining lease was granted to Last Crusade Pty Ltd, a wholly owned subsidiary of De Grey Mining Limited.

[2] A Request for Pricing was received from three recognised mining contracting entities

[3] Additional sub-consultants were utilised for the metallurgical testwork and for environmental assessments

The Hemi mining lease encompasses an area inclusive of the six Hemi deposits (Aquila, Brolga, Crow, Diucon, Eagle and Falcon), waste rock emplacements, processing plant, tailings storage facility, power supply switchyard and mine dewatering infrastructure.

The Hemi mining lease is approximately 66 km² in area, excluding infrastructure corridors and lies within exploration licence E45/3392-I, which is also held by Last Crusade Pty Ltd. Indee Gold Pty Ltd and Domain Mining Pty Ltd, are also wholly owned subsidiaries of De Grey Mining Ltd.

A further nine miscellaneous licences account for the remaining area of approximately 70 km² required for additional infrastructure that would support the Project including village accommodation, airstrip, access roads, reinjection borefield, pipeline corridors, power supply corridors and ancillary infrastructure. Four of the nine miscellaneous licences over an area of approximately 48 km² have been granted with five of the miscellaneous licence applications over an area of approximately 22 km² pending.

Table 1 provides a full list of those tenements and their status as at 1 August 2023, whilst Figure 1-3 shows the locations of the tenements that are required to develop Hemi.

Table 1.3: List of Tenements for the Hemi Gold Project

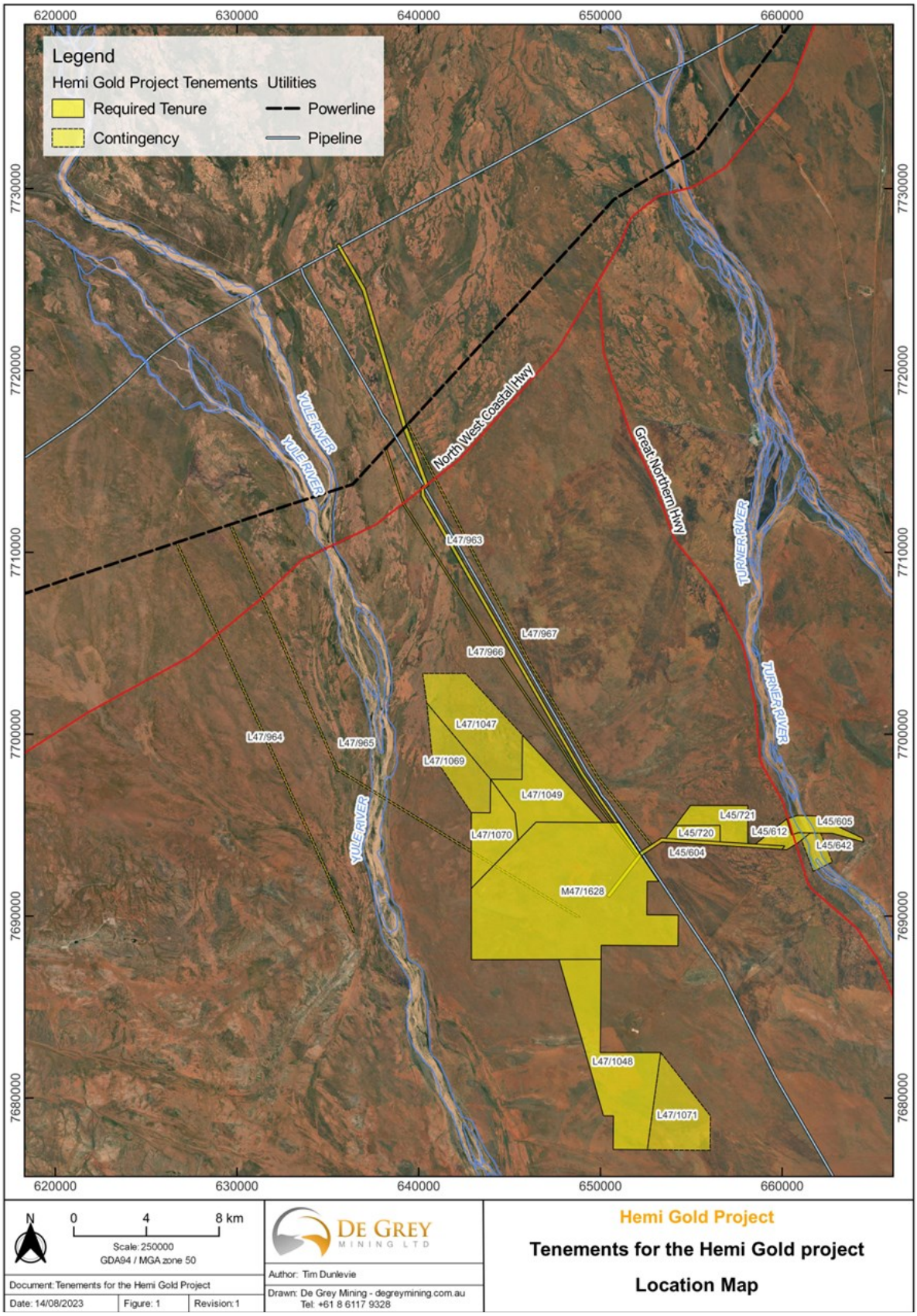
Tenement	Holder	Status	Area Ha	Description
M47/1628	Last Crusade Pty Ltd	Live	6,600	Mining Lease
L45/604	De Grey Mining Ltd	Pending	221	Services Corridor
L45/605	De Grey Mining Ltd	Live	267	Services Corridor
L45/612	De Grey Mining Ltd	Pending	205	Services Corridor
L45/720	De Grey Mining Ltd	Pending	223	Hemi Village
L45/721	De Grey Mining Ltd	Pending	537	Hemi Airstrip
L47/966	De Grey Mining Ltd	Pending	265	Services Corridor
L47/1048	Last Crusade Pty Ltd	Live	2,359	Reinjection Bores
L47/1049	De Grey Mining Ltd	Live	1,336	Reinjection Bores
L47/1070	De Grey Mining Ltd	Live	844	Reinjection Bores

For the five pending licence applications:

- Four have no objections and are progressing through the process;
- One relates to discussions with a third party that are advancing.

Further to the above, De Grey has made a further eight miscellaneous applications that provide contingency should any of the above applications not be approved.

Figure 1-3: Tenement requirements for the Project



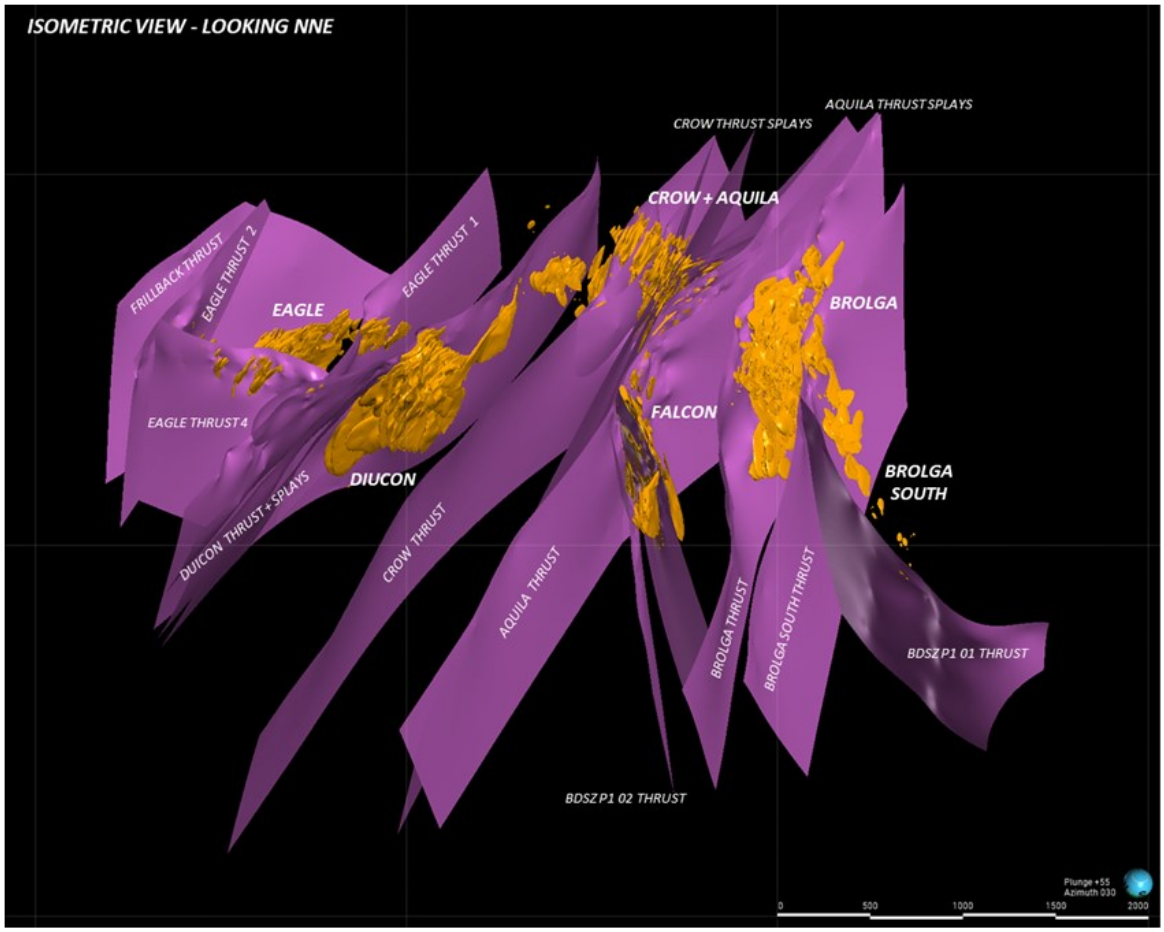
1.1 Geology and Resources

Geology

The Hemi discovery comprises a series of gold deposits, Aquila, Brolga, Crow, Diucon, Eagle and Falcon, hosted within predominately diorite to quartz diorite intrusions and sills that have been emplaced within the Mallina Basin.

The rock sequence at Hemi has undergone a complex deformation history commencing in extension during basin development and basin inversion during a compression event that resulted in folding and brittle-ductile shear zone development as shown in Figure 1-4. This has important constraints on the three-dimensional lithostratigraphy and mineralisation at the Project.

Figure 1-4: Isometric View Looking Northeast of the Hemi Deposit Gold Resource Wireframes (gold) and the Current Brittle-Ductile Shear Zone Architecture (purple)



There are two main deposit alteration and mineralisation styles, informally named as the Brolga-type and the Diucon-type. The Brolga-type all occur south of the Diucon Thrust whereas the Diucon-type straddle the Diucon Thrust. The Aquila, Brolga, Crow and Falcon deposits are interpreted as Brolga-type and Diucon and Eagle are interpreted as Diucon-type.

At the Brolga-type, strong albite-chlorite-sulphide alteration occurs within the intrusions and this alteration is intimately associated with a stockwork of chlorite-sulphide veins. Rarer sericite and later chlorite alteration and veins are also observed.

At the Diucon-type a similar assemblage of alteration minerals is present with the exception of an initial development of sericite and albite alteration and smoky quartz veining. Later brittle-ductile shear zones exploit the alteration and veining, where later chlorite-carbonate-talc alteration and sulphide-gold mineralisation is observed.

Sulphide abundance in the mineralised intrusions typically ranges from 2.5 % to 10 %, whilst marginal alteration zones peripheral to the gold mineralised zones comprise sulphide contents that typically range from 0.5 % to 1 %. The ore mineralogy is consistent in type but not content across the different deposits and consists of arsenopyrite, pyrite, trace galena, sphalerite, chalcopyrite, and native gold. In general, the gold mineralisation is semi-refractory in nature.

Native gold is typically constrained to the Diucon and Eagle deposits. Likewise, higher contents of galena, sphalerite and chalcopyrite are observed at the Diucon and Eagle deposits. Away from the gold mineralised zones the arsenopyrite content drops off rapidly to <0.5 % and pyrite is the main sulphide mineral. Arsenopyrite is generally absent within the country rock away from mineralisation.

The alteration in the country rock / waste rock units away from the intrusions is typified by regional metamorphic chlorite (possibly with calcite) alteration.

An extensive regolith profile is present at Hemi and includes aeolian and colluvial cover, a calcrete silcrete (duricrust), a transported (alluvial) cover sequence, a basal pebble and gravel palaeochannel sequence at the base of the transported (alluvial) cover sequence, upper saprolite, lower saprolite, saprock, strongly joint weathered fresh rock, weakly joint weathered fresh rock and fresh rock.

Hemi Mineral Resource Estimate

De Grey provided an updated April 2023 MRE to the ASX on 15 June 2023. The updated April 2023 MRE was conducted in accordance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Geoscientists and Minerals Council of Australia (JORC, 2012).

A total of 1,472 diamond drill ("DD") core and reverse circulation ("RC") holes in the immediate area of the Hemi deposits totalling over 380,000 m were used for the April 2023 MRE. The April 2023 MRE superseded the May 2022 MRE that was used for PFS 2022 and the June 2021 Maiden MRE that was used for Scoping 2021.

The MRE was completed in April 2023 by Callum Browne (BSc, MSc, MAusIMM), Principal Resource Geologist, of De Grey Mining Ltd under the supervision of Michael Job (BSc, MSc, FAusIMM), Principal Geologist & Geostatistician of Cube Consulting Pty Ltd. Mr. Job is the Competent Person under the JORC Code (2012).

WSP completed an independent audit of the Hemi MRE and found no fatal flaws with the data collection processes and procedures of the Hemi MRE.

Table 1.2 shows a summary of the JORC MRE for the Hemi Deposits.

Table 1.2: Summary of JORC Mineral Resource Estimate - Hemi Gold Project - April 2023

Deposit[1]	Indicated Resource			Inferred Resource			Total Resource		
	Tonnes Mt	Au g/t	Au Moz	Tonnes Mt	Au g/t	Au Moz	Tonnes Mt	Au g/t	Au Moz
Aquila	12.7	1.5	0.63	7.2	1.2	0.28	19.9	1.4	0.91
Brolga	46.0	1.3	1.98	16.2	1.0	0.52	62.2	1.3	2.51
Crow	24.3	1.1	0.87	7.6	1.2	0.29	31.9	1.1	1.16
Diucon	37.2	1.3	1.59	17.1	1.4	0.77	54.3	1.4	2.36
Eagle	19.6	1.2	0.74	10.7	1.1	0.37	30.2	1.1	1.11
Falcon	26.0	1.3	1.06	12.0	1.0	0.39	37.9	1.2	1.45
Total	**165.7**	**1.3**	**6.88**	**70.7**	**1.2**	**2.63**	**236.5**	**1.3**	**9.51**

Note 1. Above -320 mRL (390 m vertical depth) the deposit has been reported at a cutoff grade of 0.3 g/t Au (LUC estimate). Below -320 mRL the deposit has been reported at a cutoff grade of 1.0 g/t Au (OK estimate).

In addition to the gold grade values, the Hemi resource block model also includes detailed mapping of the following parameters based on five metre composite multi-element analysis and / or geological interpretation:

- Sulphide sulphur ("S^{2-}") levels;
- Iron ("Fe") in sulphide levels;
- Arsenic ("As") levels;
- Carbonate ("CO_3") levels;
- Suitable clay material for TSF floor and wall core construction.

All of these parameters were included in the mine scheduling outputs to ensure that geochemical, hydrogeological and metallurgical requirements for the Project could be adequately assessed and where necessary adjusted.

Hemi and Regional Mineral Resource Estimate

Table 1. shows the status of the MRE for the Hemi and Regional Deposits across the Pilbara Gold Province over the three study phases from Scoping 2021 to PFS 2022 to this DFS.

Table 1.5: MRE for the Hemi and Regional Deposits across the Pilbara Gold Province

MRE	Scoping Study June 2021	PFS May 2022	DFS April 2023
	Moz Au	Moz Au	Moz Au
Hemi Deposits	6.81	8.47	9.51
Regional Deposits	2.16	2.16	2.22
Pilbara Gold Province (Total)	**8.97**	**10.63**	**11.73**

Note 1. The Hemi Mineral Resource Estimate is within mineable pits

As has been noted, the drill requirements to complete the three phases of studies for the Project between 2021 and 2023 has largely precluded De Grey from undertaking normal exploration activities across the Pilbara Gold Province. Despite this, there has been an approximate 30 % increase in the ounces of gold in the MRE that have predominantly originated from drilling associated with study disciplines such as resource definition and geotechnical assessments rather than exploration. It is for this reason that De Grey foresees significant upside potential to the resource portfolio and gold production profile with the recommencement of exploration drilling in the second half of 2023.

1.2 Geotechnical

MineGeoTech ("MGT") was engaged to undertake a DFS level geotechnical assessment so as to provide bench configurations for pit shell optimisations and mine designs for the Hemi deposits of Aquila, Brolga, Crow, Diucon, Eagle and Falcon.

The geotechnical assessment for the six Hemi deposits is supported by the geotechnical logging of 72 diamond drillholes. This comprised approximately 18,171 metres ("m") of rock mass quality logging and 7,850 m of manual structural logging from diamond core drilling at a nominal 400 m drill spacing.

A data collection program was designed and undertaken in consideration of the scale of the Project to ensure that an appropriate level of data was collected to satisfy industry study guidelines. Data collection methods utilised both resource and geotechnical specific surface diamond drilling programs.

Data was used to characterise the major and minor structural environment, assess intact material strength, assess rock mass quality of the lithology units across the project area and establish geotechnical domains for analysis. Hydrogeological data was provided by consultants to establish hydraulic conductivity of materials and dewatering drawdown rates with the proposed mining sequence.

Using this data, bench scale stability and overall slope stability analysis using the 3D inelastic finite-element code RS3 was completed. Compliance of the data collection and analysis was based on Read and Stacey 2009 recommendations for a DFS level of assessment.

Peter O'Bryan & Associates completed a technical review of the MGT report and found no fatal flaws with the geotechnical assessment, summarising the bench configuration parameters as adequate and reasonable.

MGT Mine Design Parameters

Table 1.6 shows the overall simplified average mine design bench configuration parameters for 'All Deposits'.

Table 1.6: Average Bench Configuration Parameters - All Deposits

Domain		Bench Height	Batter Angle	Berm Width	IRA[1]
		m	degrees	m	degrees
Transported		10	70 °	5.5	47.5 °
Palaeochannel		10	35 °	5.0	27.5 °
Saprolite (Oxide)		10	70 °	8.0	40.5 °
Transition	Sector 40-210	10	52 °	4.0	40.0 °
	Sector 210-40	10	85 °	7.0	52.0 °
Fresh	Sector 90-170	20	70 °	8.0	52.5 °

	Sector 170-90	20	85 °	8.5	63.0 °

Note 1. IRA - Internal Ramp Angle

The geotechnical assessment updated prior geotechnical assessments as reported in Scoping 2021 and PFS 2022 and consisted of:

- Design of geotechnical data collection programs to characterise the rock mass;
- Analysis of geotechnical core logging data;
- Rock mass classification and domaining;
- Laboratory strength testing and analysis;
- Analysis of structural data from manual core logging and acoustic televiewer ("ATV") survey;
- Kinematic analysis of structural data for batter design purposes;
- Berm width analysis for rockfall protection;
- 2D finite element modelling through deep weathering zones for material strength controlled performance;
- 3D inelastic finite element numerical model for overall slope design.

Structural Setting

A review of the De Grey structural model was completed with the objective to identify which wireframes should be included in the overall stability analysis. The features were reviewed against De Grey lithology logs, ATV surveys, manual structural logging, rock mass quality logging and core photos to determine slip potential. Additionally, when "faults" or broken zones were identified in the ATV survey and geotechnical logging these were investigated to determine slip potential and continuity.

Geotechnical Domains

The regolith environment and lithology types were considered when selecting the geotechnical domain hierarchy for the DFS. The geotechnical design domains resulted from the combination of the geotechnical regolith domains and the geotechnical lithological domains.

De Grey provided an update to both the regolith and lithostratigraphic models for the DFS which were technically reviewed by MGT and simplified for mine design purposes. Simplification for the regolith followed the same principles that were adopted in the PFS 2022 geotechnical assessment work.

Table 1. and Table 1. show the respective definitions of the geotechnical regolith and geotechnical lithology domains. Figure 1- shows the plan view of the Hemi DFS mine designs and the interaction of the geotechnical domains on the pit walls.

Table 1.7: De Grey Regolith / Weathering Domains and the Geotechnical Regolith Domains

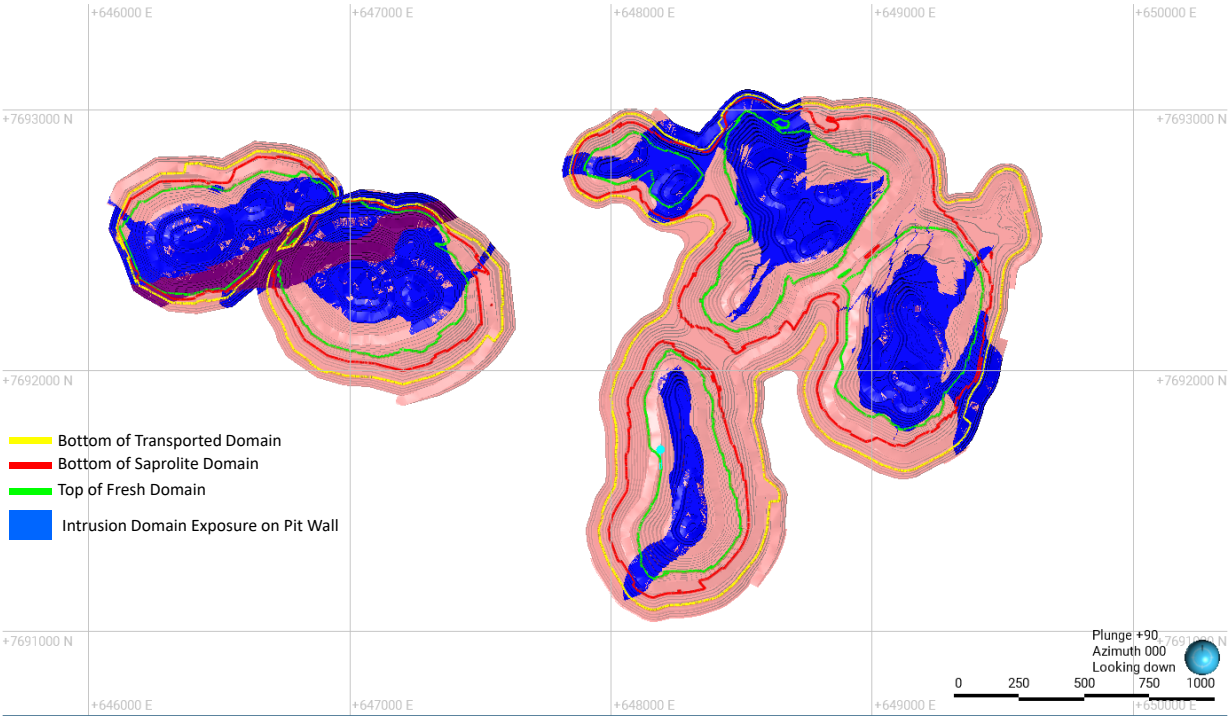
De Grey Regolith | Weathering Domains	Geotechnical Regolith Domain
Transported Cover	Transported
Sand and Gravel Palaeochannel Cover	Palaeochannel
Upper Saprolite Lower Saprolite	Saprolite
Saprock	Transitional

De Grey Regolith | Weathering Domains	Geotechnical Regolith Domain
Strongly Joint Weathered Fresh Rock	
Weakly Joint Weathered Fresh Rock	Fresh Rock
Fresh Rock	

Table 1.8: De Grey Lithostratigraphic Domains against the Geotechnical Lithology Domains

De Grey Regolith | Weathering Domains	Geotechnical Lithology Domain
Sediment 1	Sedimentary Rock Domain
Intrusion 1	Intrusion
Quartz Diorite	
QFPY	
Tholeiitic Mafic	Ultramafic
Ultramafic 1	

Figure 1-5: Plan View of the DFS Mine Designs and the Interaction of the Geotechnical Domains on the Pit Walls



Bench Configuration Design

Bench scale stability analysis was used to establish a base case bench configuration, batter face angle ("BFA"), bench height, berm width and corresponding inter ramp angle ("IRA") accounting for the potential failure mode within each geotechnical design domain for each pit.

The bench scale stability analysis establishes the kinematic instabilities within the transitional and fresh rock domains. Results are then used to calculate catchment requirements and therefore berm

width with the sedimentary rock domain, intrusion rock domain and ultramafic rock domains within the transitional and fresh regolith domains. Kinematic analysis is not appropriate for the weaker transported and saprolite domains. 2D finite element numerical modelling was used in these domains to define base case bench configuration where material strength governs instabilities.

Overall mine design slope stability was analysed using the 3D inelastic finite-element ("FE") code RS3 (Rocscience, 2023b). The aim of the overall slope analysis is to verify that the proposed batter/berm/height design parameters result in a stable design in accordance with the acceptance criteria.

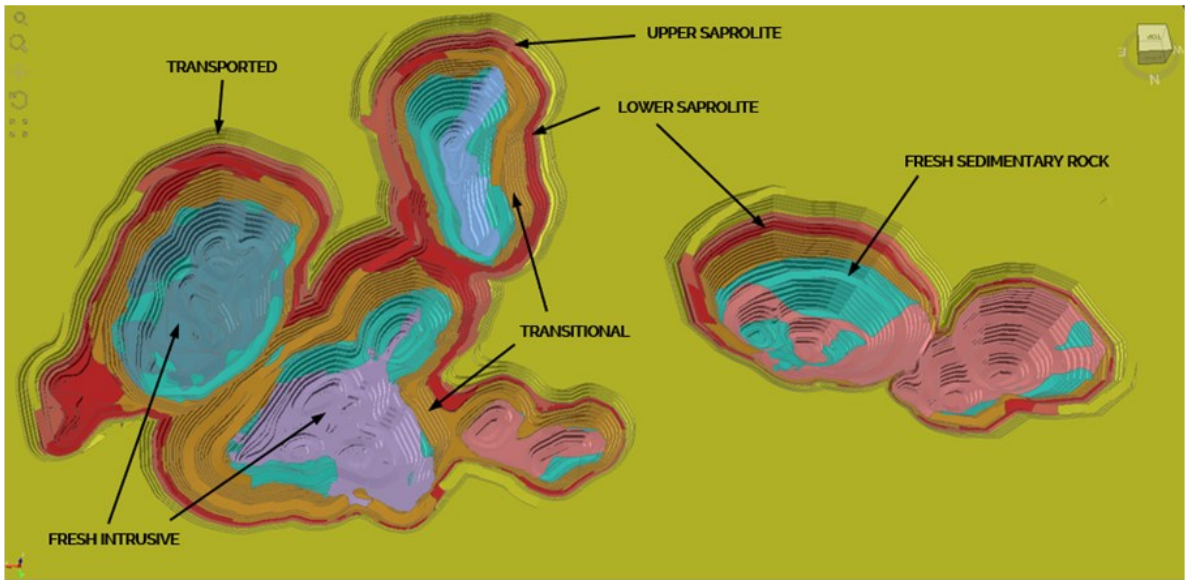
Individual mine design runs were staged to the base of the saprolite, top of fresh, and then the final void. The reason for this is to capture the staged groundwater drawdown and evaluate the interim stability as well as the final LOM stability to a minimum Factor of Safety ("FoS") of 1.5.

Inputs into the model include:

- Geotechnical regolith domains and geotechnical lithology domains
- Geowater groundwater modelling results.
- Major interpreted geological faults, provided by De Grey
- Palaeochannel unit, which was modelled as a thin 'discontinuity' surface due to the width of the material.

The 3D numerical model results revealed specific mine design sectors that required IRA flattening by approximately 5 ° in Aquila Crow, Diucon and Falcon. The 3D numeric model also highlighted mine design sectors where the IRA could be steepened by approximately 5 ° in all pits. Figure 1-5 shows the 3D RS3 Finite Element Model of Hemi.

Figure 1-5: Three Dimensional RS3 Finite Element Model (Isometric View from the North)



The proposed mine design modifications by MGT, which target a FoS of 1.5 (or more) have been adopted as part of the Hemi DFS mine designs. These Hemi DFS mine design modifications will be reassessed in a further RS3 model run as part of the operational readiness phase.

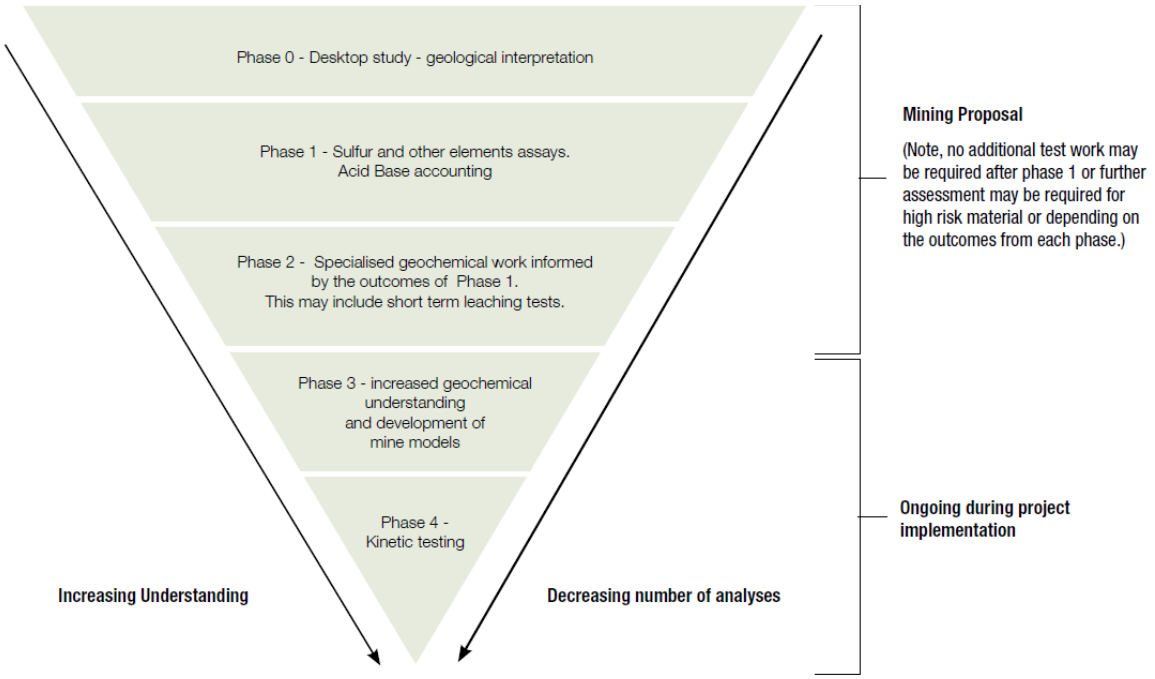
1.3 Geochemical

SRK Consulting Pty Ltd was engaged to complete a sub-surface geochemical characterisation program detailed as an input to the Hemi DFS. The characterisation program has included five phases of testwork to evaluate the geochemical and mineralogical properties of waste rock and tailings that may be generated by the Project.

The propensity for mined materials to generate acidity is a function of the balance between their acid forming constituents (e.g. sulphides) and acid neutralising constituent minerals (e.g. carbonates). This balance can be determined quantitatively using acid base accounting. Materials are classified as potentially acid forming ("PAF") when the acid forming potential is greater than the neutralising potential.

Figure 1-6 shows the five phases of sub-surface geochemical characterisation that have been undertaken for Hemi.

Figure 1-6: Phases of a Sub-Surface Geochemical Characterisation



Source: DMP (2016)

SRK completed a desktop drillhole database geochemical assessment (Phase 0), which included geological logging data and multi-element assay data as part of Scoping 2021. A sub-surface materials characterisation program (Phase 1 and 2) incorporating a static geochemical laboratory program was completed as part of PFS 2022.

Based on the results of PFS 2022, a subset of samples was for further assessment in a kinetic and supplemental leach program (Phase 3 and 4), which was designed to provide data that can be used in subsequent water quality assessments and support operational and closure planning.

Acid Metalliferous Drainage (AMD) Potential

Total sulphur concentrations were generally low to moderate, with 79 % of samples containing less than 0.1 % sulphur. The lowest sulphur contents were measured in the transported materials with the majority of samples recording contents below the detection limit of 0.01 %.

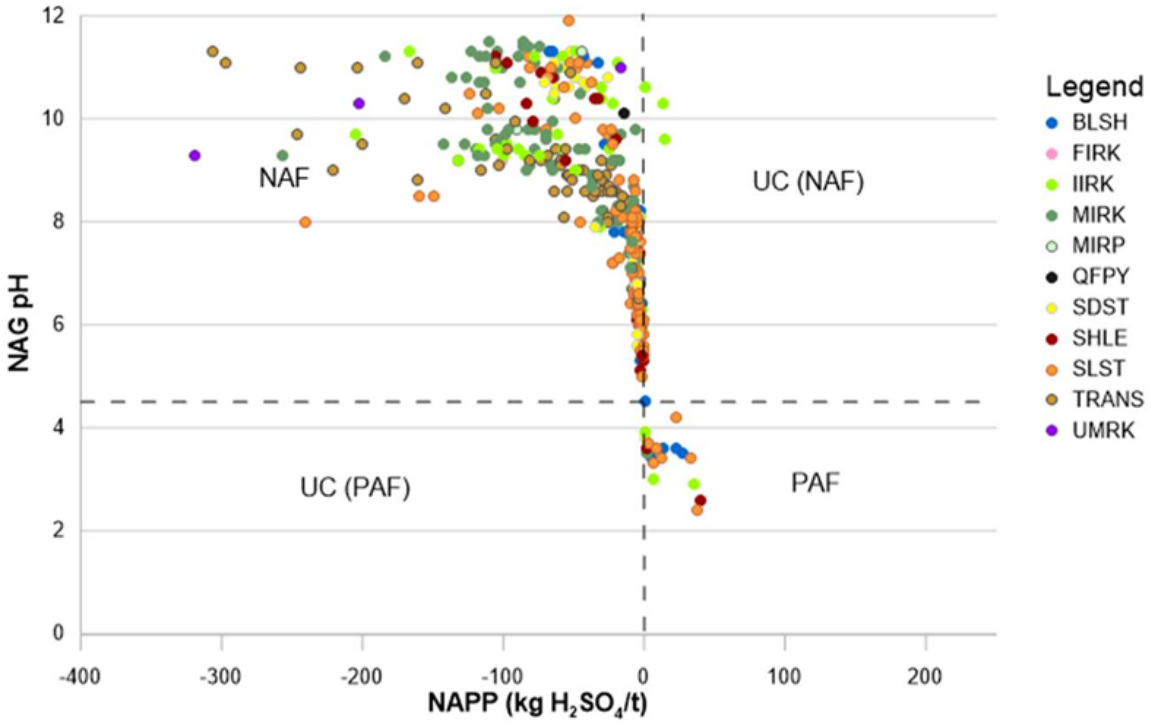
Approximately 95 % of 390 waste rock samples were classified as Non Acid Forming ("NAF") or Unclassified ("UC") NAF and did not pose a risk of Acid Metalliferous Drainage ("AMD"), recording negative net acid production potential and near neutral or alkaline net acid generation pH results. Most samples were classed as NAF or UC NAF.

Less than 5 %, or 18 of the waste rock samples were classified as PAF, which may pose a risk of AMD if not managed appropriately. These included the intrusive, shale, siltstone and sandstone lithologies. Less than 20 % of the UC NAF samples contained significant sulphide content and may pose a risk of saline drainage or Neutral Metalliferous Drainage ("NMD") if not managed appropriately.

The Hemi waste rock emplacements will be designed with internal PAF cells that allow for the isolation of waste rock material categorised as PAF or UC NAF.

Figure 1-7 shows the classification according to Australian Mineral Industry Research Association ("AMIRA") differentiated by rock type with a high percentage of samples in the NAF and UC NAF zones.

Figure 1-7: Classification According to AMIRA Differentiated by Rock Type



Element Enrichment and Contaminant Leaching Potential

Greater than 10 % of the waste rock samples were shown to be enriched in arsenic (As), sulphur (S), antimony (Sb), selenium (Se), tellurium (Te) and tungsten (W). Short term leach tests provided leachate solutions in the near neutral to alkaline range for all samples with the exception of one shale

sample that generated a mildly acidic leachate. More than 92 % of waste rock samples recorded an electrical conductivity ("EC") of less than 600 micro siemens per cm ("µS/cm").

Radioactivity Potential

The concentrations of activity for uranium (U) and Thorium (Th) in waste rock and ore samples were tested to determine if they were radioactive. Based on the low uranium and thorium contents of the materials, it is not considered that radioactivity is an issue, nor are any further radioactivity assessments required.

Weathering and Erosion Potential

A subset of waste rock samples were assessed for weathering and erosion potential. The transported materials were generally classified in the weak range in terms of strength and were considered sodic with a low risk of dispersion. Less than 5 % of the samples tested posed an erosion risk.

Fibrous Minerals Assessment

A targeted sub-set of 39 waste rock samples representing approximately 10 % of the geochemistry sample database were screened for fibrous mineral content. Actinolite was identified in only one of the samples and this was from the Diucon deposit. The presence of four countable fibres was confirmed by high resolution scanning electron microscopy ("SEM"). Despite the fact that only one sample from one deposit contained microscopic fibres of actinolite, ongoing asbestiform mineral assessments will continue to be undertaken by De Grey geologists in accordance with the De Grey Fibrous Minerals Management Plan DEG-HS-PN-0003.

Kinetic Testwork

14 waste rock samples, including four PAF, one UC NAF and nine NAF, were selected for free draining column leach tests. The column operating conditions were designed to generate data suitable to quantify the rates of sulphide oxidation rates and solute release. 11 of the 14 columns produced stable leach solute conditions within 12 months and have been terminated and reported on. The test duration for the remaining three columns has been extended beyond 12 months. Despite this extension, the results of 13 sets of leach event per column (each four weeks apart over a total of 52 weeks) are reported on for these remaining three columns.

- The evolution of leachate pH in most tests is consistent with sample classification, and all NAF classified samples have consistently resulted in circum-neutral[4] pH solutions;
- The pH of the leachate solutions obtained from two of the four PAF samples have also remained circum-neutral (after 13 completed leach events). These represent two of the three samples that have been extended beyond 12 months;
- The stable sulphate release rates, which are interpreted as indicative of sulphide oxidation rates, are lower than anticipated given the sulphide contents of the samples;
- Neutralisation in the tests may include reaction of both carbonates and silicates. Silicates usually react too slowly to be effective contributors to acid neutralisation capacity, however, due to the slow rates of oxidation and acid generation, it is inferred that the role of silicates may be significant;

[4] 'Circum-neutral' means nearly neutral having a pH between 6.5 and 7.5.

- The leachate solutions from all of the kinetic tests have remained at circum-neutral pH. The calculated times for sulphide contents to be depleted are up to 270 years. If the slow rates of sulphide oxidation (and acid generation) are verified, and neutralisation from silicate minerals is effective, the risks of AMD and NMD may be lower than previously assessed;
- Dissolved leachate concentrations of many trace metals were close to or below detection limits, with some exceptions from a subset of the columns where trace element concentrations were readily detectable, most notably As, which is not unexpected given the geology and the likely presence of arsenopyrite within the sulphide minerals.

Tailings Testwork

The geochemical characterisation program also included study of a tailings sample, generated as part of the PFS 2022 metallurgical program to represent the final tailings to be deposited. The tailings sample contained negligible sulphide sulphur (<0.02 wt%) and has thus far undergone seven successive bottle roll leach events of a ten step leach test.

- The pH of the leachates from the multi-step leach test were circum-neutral over the duration of the seven leach cycles with three more leach cycles still to take place;
- Most major and minor parameters show trends indicating the progressive leaching and depletion of readily soluble salts from the sample, that is, higher dissolved concentrations occur in the first few leach cycles;
- The exceptions are for increasing concentration trends for Al, As, Mn from the second leach event and Si in successive leach events. Such trends may suggest increases in solubility or desorption during the test, possibly in response to changes in the solution composition, for example, decreasing ionic strength;
- Total cyanide concentrations decreased from 1.2 ppm in the first leachate solution to 0.12 ppm in the sixth and seventh leachate solution, that is, displayed a trend of progressive leaching. Detectable concentrations of free cyanide at 0.009 ppm and weak acid dissociable cyanide at 0.011 ppm were only measured in the first leach solution.

1.4 Hydrogeology

Geowater was engaged to undertake a DFS level hydrogeological assessment and report on its findings. Geowater have completed field investigations and groundwater assessments over a period of approximately three years as part of the development of conceptual and numerical groundwater models for the Project.

The key objectives of the conceptual and numerical groundwater modelling were to:

- Estimation of dewatering and water supply requirements to a technical standard to support a DFS level of accuracy for water system design and cost estimation;
- Complete a robust technical assessment of the potential impacts of the proposed use of the local groundwater resource on surrounding water users and the environment. The technical assessment is to be of a 'H3 level' to adequately support the submission of a 5C Groundwater Well Licence ("GWL") application to the Department of Water and Environmental Regulation ("DWER").

The assessment determined that the hydrogeology of the Hemi deposits is suitable for successful advance dewatering of the alluvial cover and underlying weathered rock profile via a conventional borefield system.

Conceptual and Numerical Groundwater Model

The study area surrounding the Hemi deposits for the conceptual and numerical groundwater models measured approximately 50 km x 30 km.

Relatively shallow alluvium is widespread forming a significant shallow aquifer that extends from Hemi to some reaches of the Yule River but not the Turner River. Within the alluvial cover at Hemi, there is a paleochannel river system comprised of up to 15 m of highly permeable sands and gravels that is approximately 1,000 m wide and up to 42 m in depth that drains towards the coast.

The groundwater flow and hydraulic gradients are relatively uniform with a regional flow in the north northwest direction. The depth to groundwater is typically 5 m to 10 m and is typically shallower in parts of the Yule River and Turner River and deeper in rock outcrop and sand dune areas. The water quality of the shallow aquifer zones is typically fresh to slightly brackish, slightly alkaline and fit for pastoral and mining usage. Along the Yule River to the north west of the Hemi area, the groundwater is of potable quality.

The water table in the Turner River is typically 2 m to 4 m below the shallowest parts of the riverbed during dry season periods hence a lack of river pools over the majority of the study area.

The Yule River has three river pools; Jelliabidina, Mardagubiddinna and Portree that have elevated ecological and heritage value and which are permanent or semi-permanent. River pool sites north of these three have dried up in each of the dry seasons since 2021.

Evaporation and evapotranspiration during dry periods are considered to be limited to sections of the rivers where river pools, or shallow water tables and riparian vegetation occur. The recharge from river flows to the shallow aquifer systems is variable over time and by location. The highest amounts of river recharge occur from the Yule River in the north western part of the study area where large flow events spill over the main channel onto the surrounding sand plain. The lowest amounts of recharge are considered to occur in the southern reach of the Turner River, where significant amounts of slightly weathered to fresh bedrock occur in or near the riverbed.

At Hemi, the weathered bedrock zones do not typically form significant aquifer zones apart from the saprock profile of igneous intrusives, which exhibit moderate permeability and low storativity. At the Eagle deposit, a localised zone of higher permeability has developed in the intrusive saprock.

Within the fresh bedrock, permeability is restricted to localised fractured rock zones. A review of diamond drill core photographs suggest fracture zones within the fresh bedrock tend to occur close to the contact zones between more brittle igneous intrusives and more ductile sedimentary units, and are potentially enhanced within and near fold hinges and later stage faulting. The amount of fracture zone development within the fresh bedrock is limited such that the overall fresh rock mass is likely to have a very low permeability.

The shallower alluvium and paleochannel aquifer at Hemi are in a direct geologic and hydraulic connection with the nearest groundwater user, which is the Atlas Iron Mt Dove borefield. A direct connection has also been interpreted with the more remote Watercorp Yule River borefield.

Rainfall recharge to the water table in the Hemi area and surrounding alluvial plain is low but significant. A long term average of 1 % to 3 % of annual rainfall is likely in areas near and above

the palaeochannel aquifer, and less than 1 % in areas of very shallow alluvial cover and bedrock outcrop. The increasing salinity trend from west to east of the shallow water table at Hemi is considered to reflect variation in rainfall recharge.

Elevated levels of soluble arsenic can occur in the weathered rock profile within and adjacent to ore zones. Elevated levels of soluble arsenic, typically 0.020 mg/L to 0.060 mg/L can also occur in the basal sections of the alluvial aquifer within short down gradient distances of ore zones.

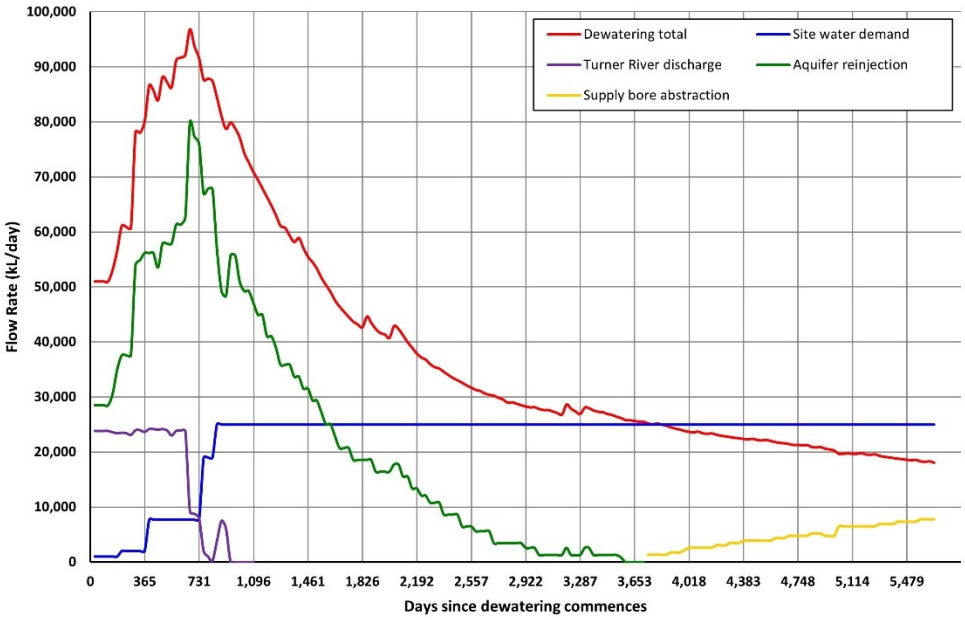
The hydrogeology of the Hemi deposits is considered suitable for successful advance dewatering of the alluvial cover and underlying weathered rock profile via a conventional borefield system. Within the more extensive fresh bedrock profile, relatively minor inflows are expected that would require in-pit sumps and/or targeted dewatering bores.

Project Dewatering Requirements

Mine dewatering rates ranging from 51 ML/day to 97 ML/day will be required in the initial years of the Project due to the high permeability and storage within the alluvial aquifer and the shallow depth to groundwater.

The groundwater model has been designed so as to allow for approximately 50 % of the extracted water to be reinjected back into the aquifer upstream and downstream of Hemi, and, a 12 month mine dewatering timeframe requirement prior to the commencement of mining. Figure 1-8 shows the base case mine dewatering rates and site water balance.

Figure 1-8: Base Case Mine Dewatering Rates and Site Water Balance



The project schedule has three months of contingency within the 15 month mine dewatering timeframe prior to the commencement of mining. This is to allow for any delays in the staged ramp-up of the mine dewatering system and for variations in actual flow rates compared to model predictions.

The volume of groundwater that is reinjected back into the aquifer and the volume of groundwater required for the mining and processing operations is similar to the overall mine dewatering requirement from Year 3 onwards. However, in the initial two year period, whilst the processing

plant is being constructed and mining operations are only conducted for a 9 month period at a lesser rate, there is a surplus of up to 24 ML/day of groundwater that requires discharge to the Turner River.

The model predicts that in Year 8 of processing operations, there may be water demand beyond the mine dewatering system. This would be facilitated by converting a number of the reinjection bores to production bores.

Model sensitivities were completed with maximum dewatering rates ranging from 86 ML/day to 103 ML/day resulting compared to the base case of 97 ML/day. The dewatering system will be designed with engineering factors of 30 % to 50 % applied pending the aspect of the system (e.g. pump, header pipe).

The modelling results indicate that the vertical drainage of water through the highly weathered bedrock zones occurs without significant perching or build-up of pore pressure heads in zones immediately behind pit wall positions. Despite this, observations of core suggest lower permeabilities may be present in some parts of the saprolite profile within fine grained sedimentary bedrock or in silty zones within saturated alluvium and so vibrating wire piezometers will be installed at strategic locations in order to monitor pore pressures and manage slope stability.

The ex-pit mine dewatering bores will be spaced closely enough to capture the majority of groundwater inflow to the pits, however there will still be a requirement, albeit to a lesser extent for in pit sumps.

Two types of natural groundwater exist in the model area:

- Type I – this water is suitable for aquifer reinjection, discharge to the Turner River and with reverse osmosis treatment, for potable water supply. This water quality meets Australian New Zealand Environment & Conservation Council ("ANZECC") 2018 guideline values for freshwater aquatic ecosystem protection to Light Organic Solvent Preservative ("LOSP") 95 criteria (e.g. 0.024 mg/L for soluble arsenic $_{(III)}$);
- Type II – this water has naturally elevated levels of certain metals, for example, soluble arsenic, and is suitable for reinjection where the bore location recirculates to the Hemi deposits during the operational phase of mining and processing.

Type II groundwater will be managed throughout the life of mine, particularly during the first two years of mine dewatering prior to the commencement of processing operations. This management will be facilitated by a dual piping manifold system that will direct Type II groundwater to reinjection bores that recirculate back to the Hemi deposits for the first two years and then to the processing plant thereafter, whilst Type I groundwater can be directed to any of the reinjection bores and when required, to the Turner River.

Potential Environmental Impacts of Proposed Groundwater Use

No material impacts are predicted from the proposed mine dewatering system at Hemi, however, it would likely render three Indee Station pastoral bores inoperable. De Grey would therefore either install deeper bores or provide water to these locations from an alternate source. One Atlas Iron Mt Dove bore would have a drawdown of approximately eight metres at the end of the operational phase. De Grey would either install a replacement bore or provide water from an alternate source.

No adverse impacts on the Yule River borefield or groundwater resources within the Yule Public Drinking Water Source Area ("PDWSA") are predicted. Whilst drawdown from Hemi dewatering

propagates a distance of approximately 12 km to the north west, the nearest WaterCorp production bore is approximately 32 km from Hemi. Minor levels of drawdown (less than 2 m) are predicted to extend up to one kilometre inside the PDWSA boundary, however this would not have a material impact on the integrity or yield of the Yule PDWSA.

The alluvial aquifer within the model domain is predicted to have a volume reduction at the conclusion of operations of approximately 7 % compared to the November 2022 aquifer volume. This reduction in the context of reduced habitat for stygofauna is not considered material.

No material impacts on river pools or riparian vegetations in the Yule River are predicted. Three intermittent pools occur within 1 km of the maximum drawdown extent. Jelliabiddina, Mardagubiddina and Portree are 2.5 km to 5.5 km beyond the predicted maximum drawdown extent.

The potential for adverse impacts from the proposed aquifer reinjection is considered to be low as the design strategy for model simulations was to limit water table mounding in reinjection areas to no higher than three metres below ground level. Additionally, reinjection of Type II water is restricted to the first two years of mine dewatering, and only to those bores where particle tracking modelling confirms that the reinjected water recirculates back to the Hemi deposits and is recaptured by the mine dewatering system.

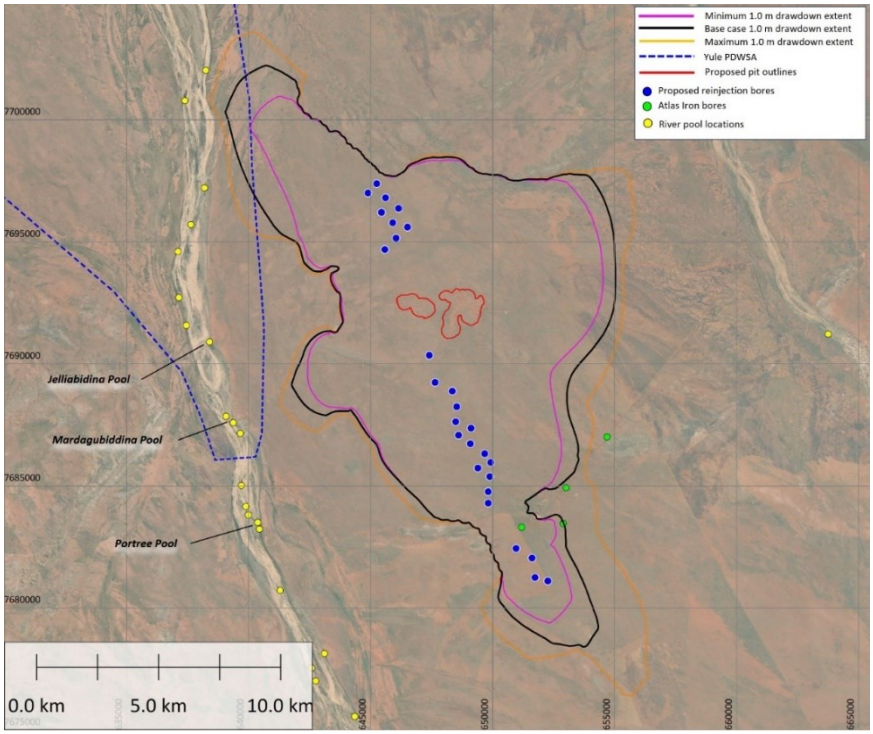
The potential impacts on the shallow aquifer beneath reaches of the Turner River that become saturated from the proposed surplus groundwater discharge have been assessed as insignificant or minor. The mounding of the water table under the wetted river channels has been modelled and with the lateral extent of mounding predicted to be within 300 m to 600 m of the channel, the potential for adverse water quality impacts is considered highly unlikely.

The engineered design of the TSF ensures that the controlled seepage to the underlying water table does not have the potential to cause adverse impacts. The TSF is also located within the drawdown footprint of the adjacent mine dewatering.

The model uncertainty was also assessed via a sensitivity analysis in which aquifer permeability, specific yield and natural recharge rates are varied above and below the base case values. This analysis indicated that the drawdown extent could increase by up to 3 km or decrease by up to 1.5 km in some areas of the model domains compared to the base case. This variation in drawdown extent is not considered material in terms of the findings of the impact assessment or water management measures that are presented as the base case in the hydrogeological report.

Figure 1-9 shows the base case drawdown contours as well as those cases tested in the sensitivity analysis. The figure also shows the proposed locations of the reinjection bores upstream and downstream of Hemi.

Figure 1-9: Base Case Dewatering Drawdown Uncertainty



1.5 Hydrology

Surface Water Solutions was engaged to undertake a DFS level hydrological (surface water) assessment in parallel with the hydrogeological (groundwater) assessment.

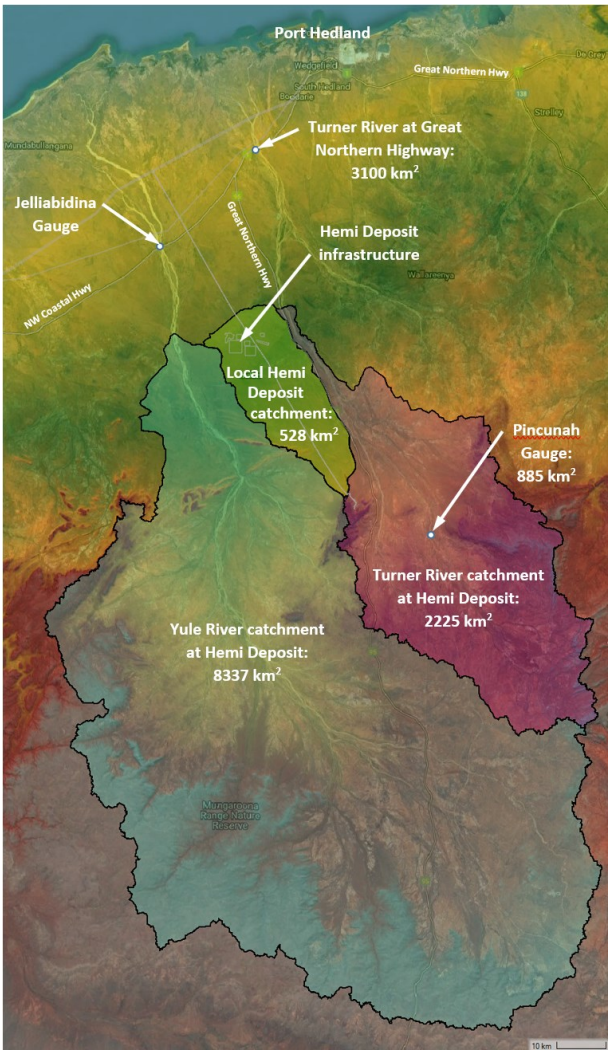
Electronic geospatial data was modelled so as to determine the baseline (existing condition) flood extents, flood levels and flood velocities associated with a 0.1 % Annual Exceedance Probability ("AEP"), or 1 in 1,000 year rainfall event and a 1 % AEP, or 1 in 100 year rainfall event.

The surface water modelling demonstrated that for the 0.1 % AEP or 1 in 1,000 year flood event, the proposed Hemi site would have approximately 250 millimetres ("mm") to 300 mm of sheet water (from the rain event) with a maximum depth of approximately 500 mm across the site with low flow velocities of approximately 0.4 m/s, which would not require rock armouring. The Yule River and the Turner River would not be expected to overtop in a 0.1 % AEP (1:1,000 year) rainfall event.

Catchments

The two relevant catchments of the Hemi Gold Project are the Yule River catchment at 8,337 km² and the Turner River catchment at 2,225 km² as shown in Figure 1-10.

Figure 1-10: Yule River and Turner River Catchments Relative to the Hemi Gold Project



Peak Flow Estimation

A number of assessments of the peak discharge rates for the Yule River and Turner River have been completed by various parties over time utilising the data from the Pincunah Gauge on the Turner River and the Jelliabidina Gauge on the Yule River.

The Study adopted a Yule River 1 % AEP peak discharge rate of 16,500 cubic metres per second ("m³/s") based on flood frequency analyses ("FFA") results, with a 1 in 1,000 year AEP flow rate of 27,000 m³/s[5]. For the Turner River, a 1 % AEP peak discharge rate of 11,288 m³/s was adopted, with a 1 in 1,000 AEP flow rate of 17,850 m³/s.

For comparison, the 1 % AEP or 1:100 year Turner River flow event equates to a flow rate of approximately 975,283 Ml/day compared to the maximum proposed surplus water discharge from Hemi of 32 Ml/day.

The Yule River is confined by high ground upstream of the site, with overtopping flows beginning to reach the site at a discharge rate of approximately 50,000 m³/s, approximately two times the

[5] 16,500 m³/s equates to 1,425,600 Ml/day and 27,000 m³/s equates to 2,332,800 Ml/day

estimated 0.1 % AEP discharge. The Turner River begins to overtop its banks and release flow toward the site at a discharge rate of approximately 10,000 m³/s.

Hydraulic Modelling

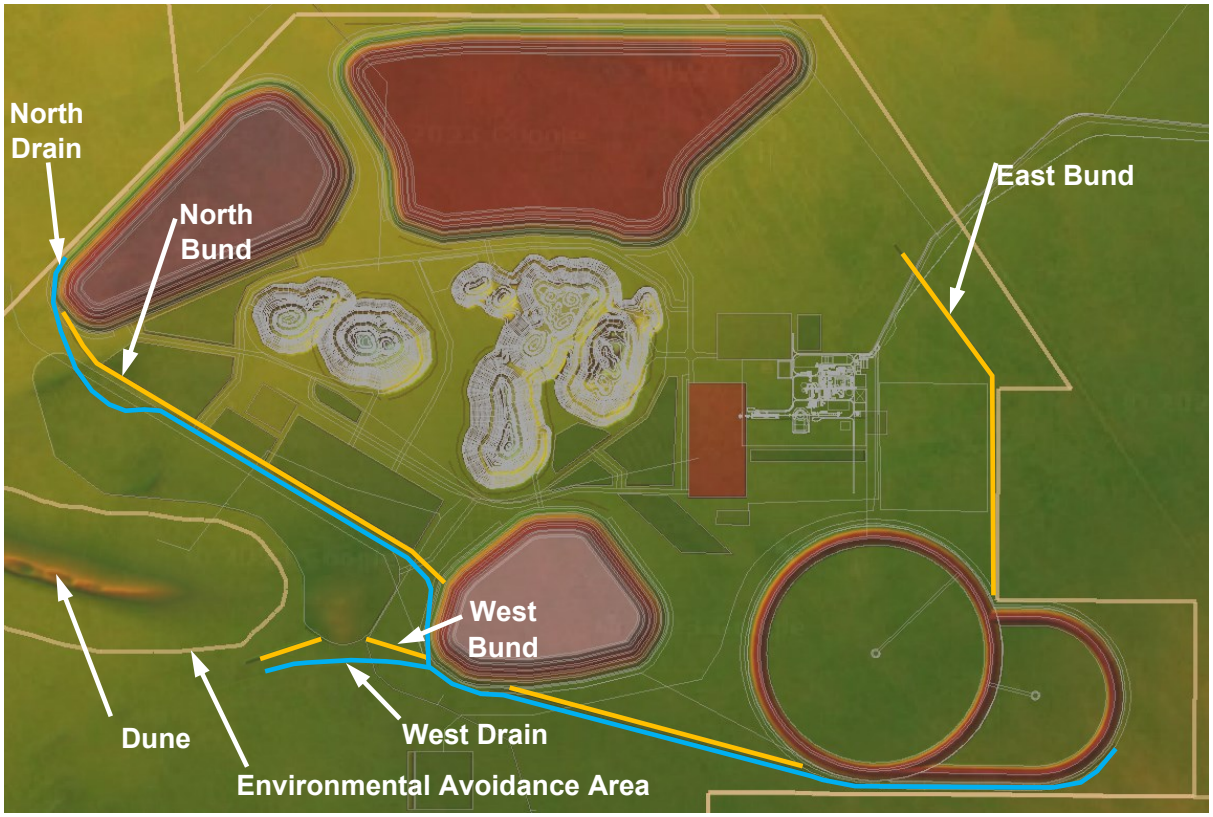
De Grey has over time completed a number of LiDAR surveys at Hemi in order to attain accurate topographic data sets. Despite this, discrepancies of up to 500 mm are present across the interface zones between data sets. In areas with overlapping coverage, the most recent 2023 digital elevation model is adopted as the underlying terrain for the hydraulic modelling with terrain data outside the 2023 coverage shifted using uniform vertical adjustment factors so as to match the average elevation difference along the stitch interface. Areas outside the 2022 digital elevation model coverage are sufficiently far from the site to avoid affecting water levels at the site.

Proposed project infrastructure was incorporated into the terrain model to reflect life of mine conditions at Year 10. Design models for the Year 10 scenario were included for pits, waste rock emplacements and tailings storage facility. Additional features were included by uniformly raising the existing terrain surface within the feature perimeter. The main access road was raised by 0.5 m; additional roads were raised by 0.3 m. Stockpile areas were raised by 3 m. The magazine, airport, village and plant areas were raised by 0.5 m, and the ROM pad was raised 20 m.

Bunds and drains were added to the model to direct external runoff around the site. Internal drains were added where needed to prevent standing water against landforms. External perimeter drains have a bottom width of 20 m. Bunds in the model are placed with sufficient height to prevent overtopping in the 1 in 1,000 AEP event with a minimum of 500 mm freeboard. Figure 1-11 shows the proposed bunds and drains that were incorporated into the hydraulic model.

Figure 1-11 shows the proposed North Bund (11.5 km long at 2.5 m height) external flow route via the north drain which is located to the north of the existing sand dune and the East Bund (3.5 km long at 1.3 m height) external flow route to the north of the project infrastructure across the floodway of the main access road. All other model parameters for the life of mine conditions were set to match the existing conditions model setup.

Figure 1-11: Proposed Bunds and Drains Incorporated into the Hydraulic Model



The West Bund (8.5 km long at 2.0 m height) alternative is also shown. This option would be implemented if the contingency waste rock emplacement was required and routes external flow to the south of the existing sand dune toward the Yule River and includes the contingency stockpile area.

Hydraulic Model Results

Hydraulic model runs are shown for the 'existing conditions' scenarios, where there is no project infrastructure present and for Year 10 conditions, equivalent to the life of mine scenario.

- Figure 1-12 shows the maximum 0.1 % AEP (1:1,000 year) flood depths for existing conditions;
- Figure 1-13 shows the maximum 0.1 % AEP (1:1,000 year) flood depths at Year 10;
- Figure 1-14 shows the maximum 0.1 % AEP (1:1,000 year) flood velocities for existing conditions;
- Figure 1-15 shows the maximum 0.1 % AEP (1:1,000 year) flood velocities at Year 10;

As indicated by the flow directions, inundation across the proposed infrastructure area is related to localised rainfall runoff and is not affected by flood flows in the Yule River or Turner River. In terms of flow velocities, rock armouring is only recommended when flow velocities exceed 2.0 m/s under the Austroad 2013 guidelines.

Figure 1-12: Maximum 0.1 % AEP (1:1,000 year) Flood Depths – Existing Conditions

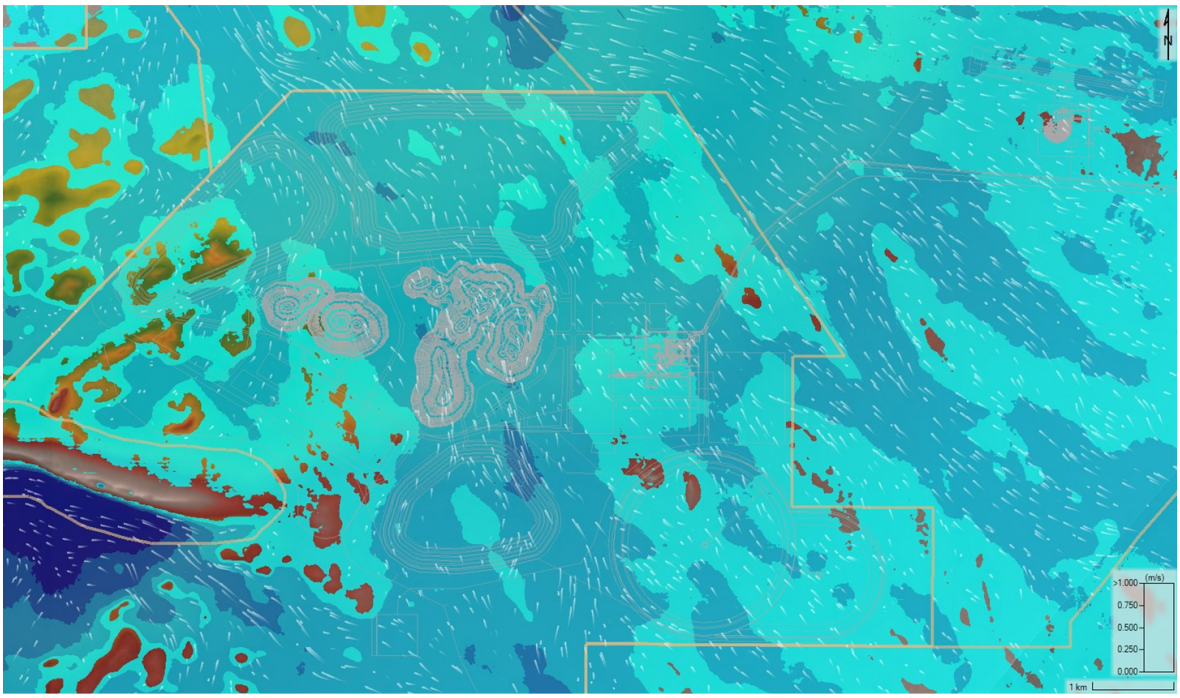


Figure 1-13: Maximum 0.1 % AEP (1:1,000 year) Flood Depths – LOM Scenario

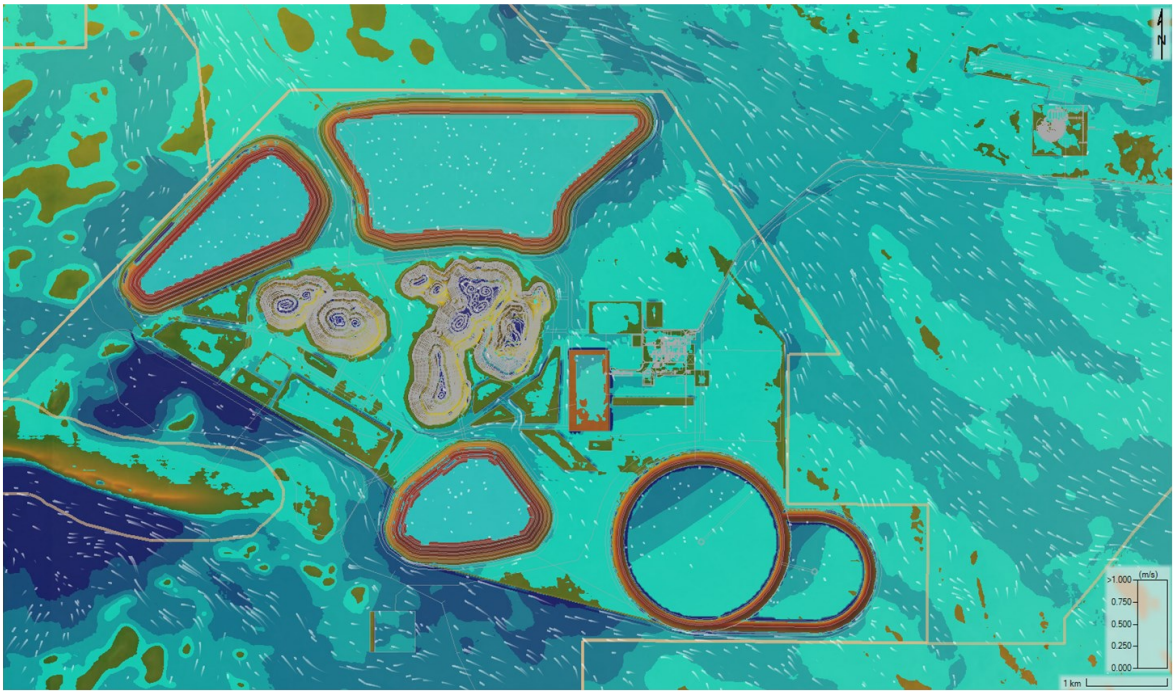


Figure 1-14: Maximum 0.1 % AEP (1:1,000 year) Flood Velocities – Existing Conditions

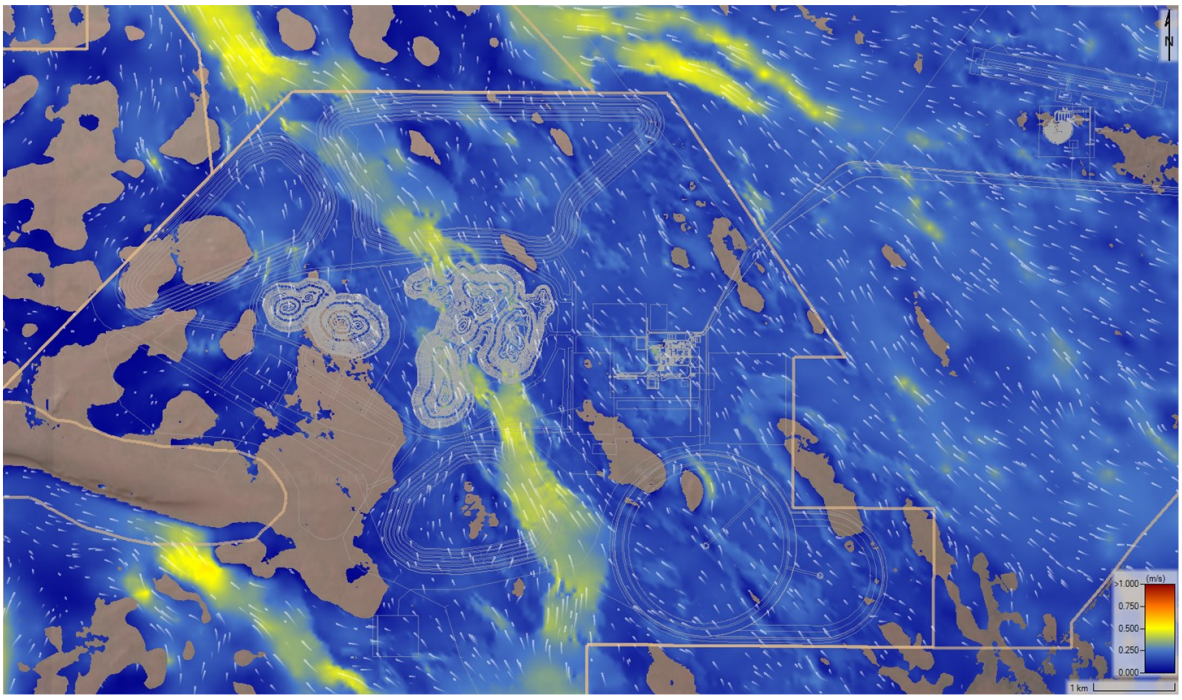
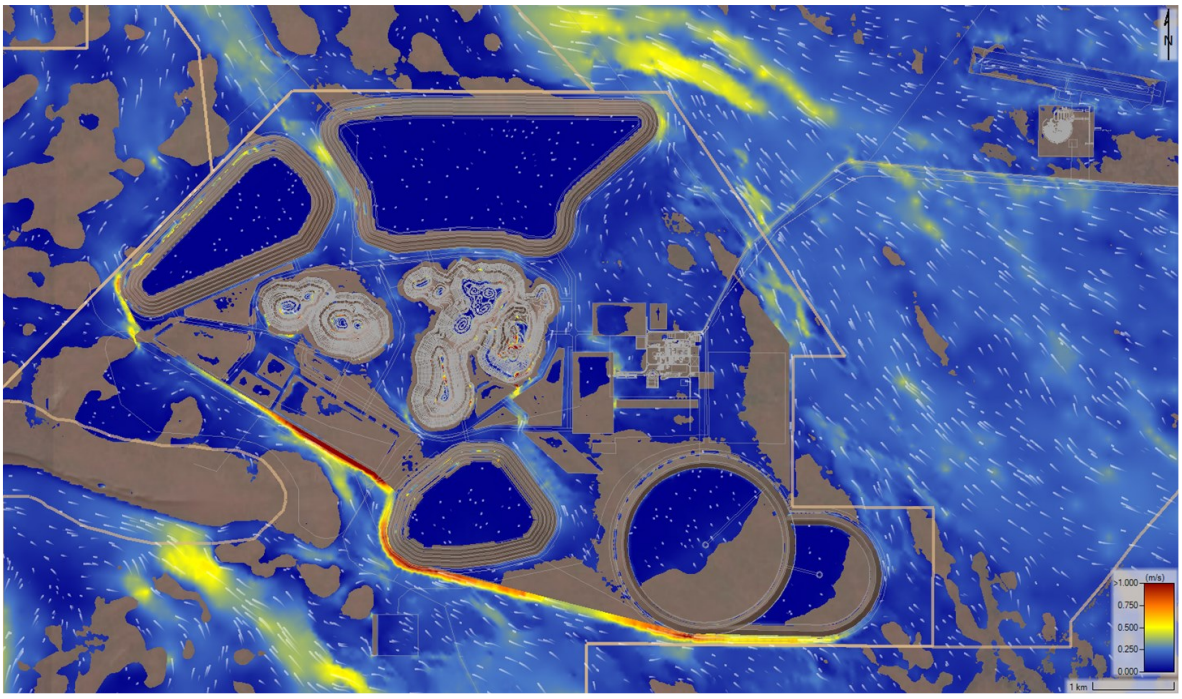


Figure 1-15: Maximum 0.1 % AEP (1:1,000 year) Flood Velocities – LOM Scenario



The inundation resulting from the surplus water discharge to the Turner River during the initial two year period whilst the processing plant is being constructed is shown in Figure 1-16 versus 1:100 year, 1:20 year, 1:10 year, 1:5 year and 1:2 year flow events. Figure 1-17 shows a plan view of the peak inundation of the Turner River during the two year surplus water discharge period.

Figure 1-16: Turner River Flow Events versus Surplus Water Discharge

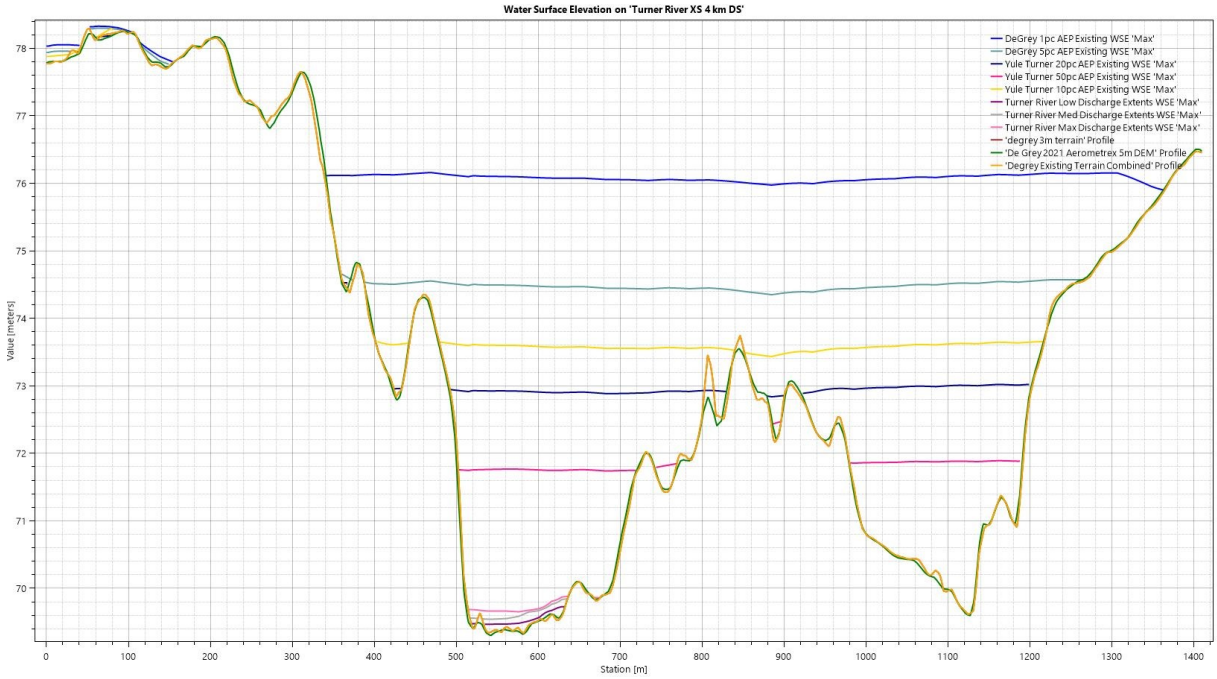
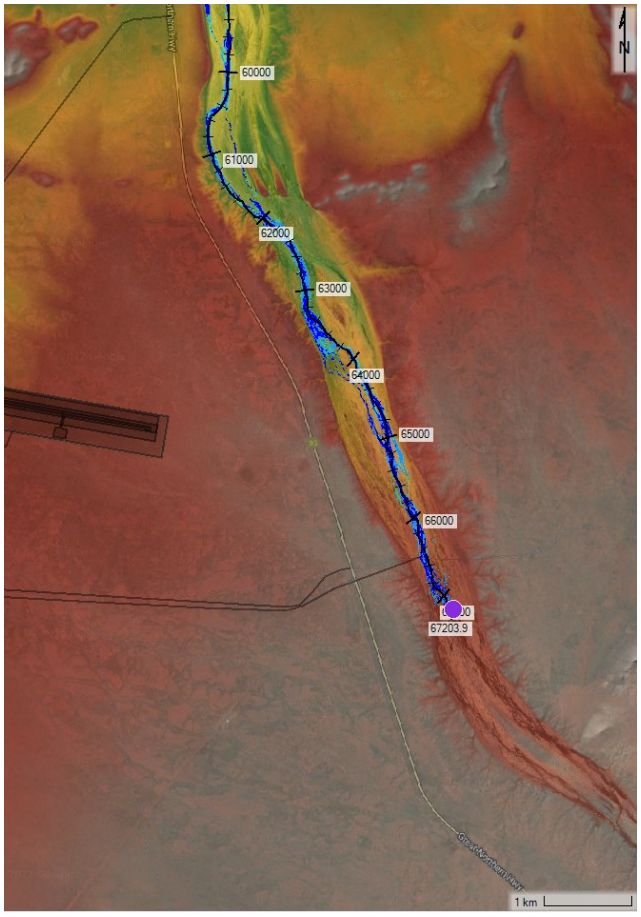


Figure 1-17: Plan View of Maximum Inundation of Turner River



1.6 Mining

Cube Consulting ("Cube") was engaged by De Grey to undertake open pit mining engineering studies to a DFS level for the Hemi Gold Project and to report on those findings.

The scope of works included the following:

- The review, confirmation and collation of input parameters;
- Open pit optimisation studies;
- Open pit designs;
- Abandonment bund location;
- Waste rock emplacement ("WRE") designs;
- Life of mine ("LOM") open pit production and processing feed schedule; and
- Updated Ore Reserve estimate.

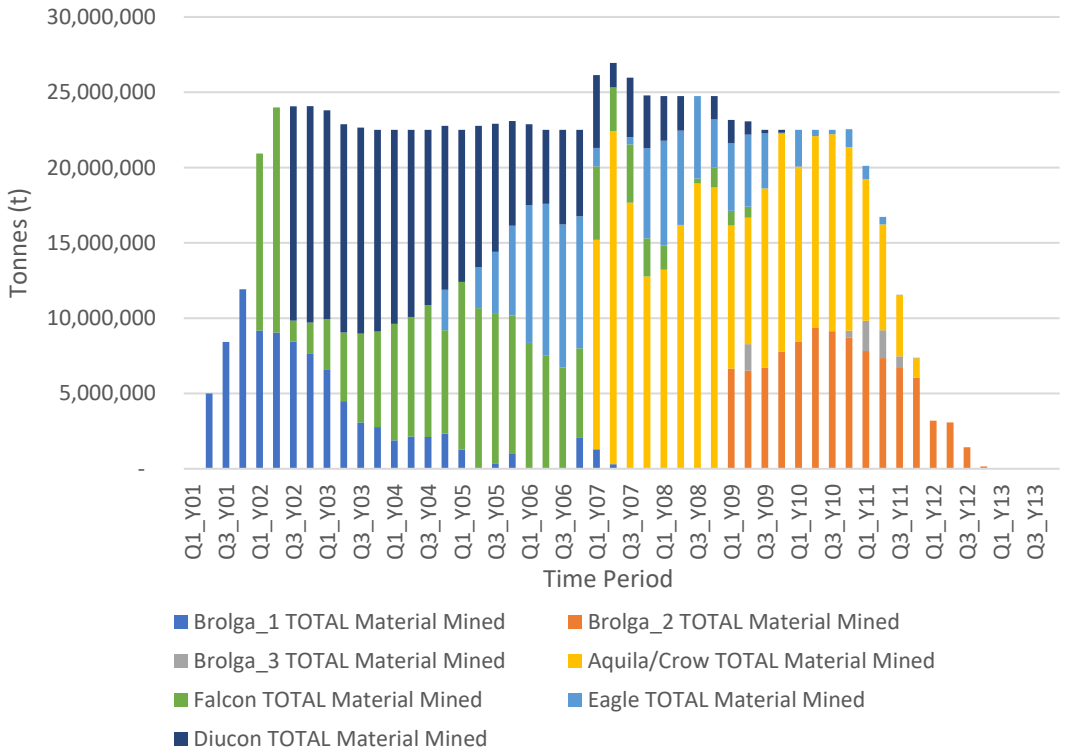
Table 1. shows the DFS Hemi Ore Reserve estimate by deposit. This updated Ore Reserve estimate represents an increase of 17 % or 17.4 Mt in tonnes at a similar gold grade, and an increase of 17 % or 863 koz Au in ounces over the Maiden Ore Reserve reported in PFS 2022. Figure 1-18 shows the total tonnes mined by deposit over the evaluation period.

Table 1.9: Hemi Gold Project Open Pit Ore Reserves Estimate – September 2023

Deposit	Tonnes	Grade	Ounces
	Mt	g/t Au	koz Au
Aquila Crow	24.7	1.6	1,259
Brolga	36.5	1.6	1,829
Diucon	26.6	1.6	1,383
Eagle	13.0	1.4	598
Falcon	20.0	1.4	932
Total	**120.8**	**1.5**	**6,002**

The Ore Reserve is contained within an open pit containing 809 Mt of waste material resulting in a waste to ore (tonnes) strip ratio of 6.7:1 and a combined total open pit size of 930 Mt. Included in the waste material are 1.2 Mt of Mineral Resources classified within the inferred category which received no economic value in the work completed for the reporting of Ore Reserves.

Figure 1-18: Hemi Gold Project - Total Tonnes Mined by Deposit



Resource Models

The DFS resource models utilised in the mining engineering studies were provided to Cube by De Grey and were produced in March 2023. The ore block model was developed in Datamine using the exploration grid GDA94 (zone 52) with a 50 º rotation. This consisted of ore blocks only at a block size of 5 m x 5 m x 5 m.

A waste model was then created that encompassed the area of the ore model whilst allowing for sufficient area to be able to run the pit optimisations when considering the expected wall angles. This was done using a block size or 20 m x 20 m x 5 m.

A regularised model was then created with a block size of 5 m x 5 m x 5 m. The waste model was them imported into this model, and subsequently the ore model was imported over the top of the waste model. This stamped the ore block details over the top of the waste blocks, where both existed, and maintained the waste block details elsewhere.

In addition to parameters required for the pit shell optimisations, the resource model also included values for sulphur (as sulphide), iron (in sulphide minerals), arsenic, calcium (as proxy for carbonates) and suitable TSF clay.

Input Parameters

Input parameters containing processing, operating, fixed and mining costs and recovery were arrived at in consultation with De Grey, which included base economic, geotechnical, mining and processing parameters required for the study.

Table 1. shows the key input parameters relating to processing costs, revenue and other costs.

Table 1.10: Key Optimisation Input Parameters

Item		Unit	Free Milling
Mining Ore Based Costs	Owner's Fixed costs	$/t ore	1.38
	Rehabilitation Provision	$/t ore	0.61
	Grade Control	$/t ore	0.22
	Mining Contractor fixed costs	$/t ore	2.34
Process Plant Throughput		Mtpa	10.0
Process Cost	Oxide	$/t ore	23.94
	Transitional	$/t ore	23.94
	Fresh	$/t ore	23.94
	General and Admin	$/t ore	1.38
Total Ore Based Cost	Oxide	$/t ore	30.01
	Transitional	$/t ore	30.01
	Fresh	$/t ore	30.01
Process Au Recovery	Oxide		Fixed residue grade of 0.1 g/t
	Transitional		Fixed residue grade of 0.1 g/t
	Fresh		Fixed residue grade of 0.1 g/t
Revenue	Selling Costs Au	AU$/oz	10
	Metal Price Au	AU$/oz	2,500
	State Royalty Au	%	2.50 %
Net Gold Price		AU$/oz	2,416
Annual Discount Rate		%	6.0 %

The resource models were estimated using localised uniform conditioning ("LUC") modelling techniques which are considered to be recoverable resource models and as a result no additional ore losses or mining dilution were applied to those models. No additional ore based haulage costs were added to account for ore haulage as the processing plant and stockpiles will be located adjacent to the Hemi deposits.

Mining load and haul, and drill and blast costs used were the values derived from costing estimates from PFS 2022. These costs were supplied on an individual deposit basis and were then reviewed against the final DFS cost estimates to confirm that any differences did not impact the pit shell optimisation process.

MGT provided the bench configurations to be used for the pit optimisation and pit designs. The parameters were specified for each region defined by regolith, weathering and lithology. Again, the final DFS bench configurations were compared to those provided before the final geotechnical assessment had been completed to confirm that any differences did not impact the pit shell optimisation process.

Open Pit Shell Optimisation Studies

Input parameters were used in completing open pit optimisations using WHITTLE® software, which uses the Lerchs-Grossman algorithm to determine a range of optimal shells at varying metal prices. The program generates economic shells based on input parameters consisting of operating costs (mining & processing costs, royalties, selling costs), metallurgical recoveries, geologic and geotechnical (slope) considerations. The optimal pit shells derived from the open pit optimisation are then used to develop open pit mine plans for the deposit.

Open pit optimisations were completed for all of the deposits in separate runs such that the evaluation and shell selections could be undertaken individually for each deposit. The Run A pit shells, which optimise and include only Indicated ounces were used as the basis for pit shell selection. It should be noted that the cost / oz Au column is indicative only and does not include allowance for the open pit design process. Table 1. shows the pit shell that were selected for each of the Hemi deposits.

Table 1.11: Run A Hemi Optimisation Shell Selections- Excluding Inferred

Deposit	Shell	Factor	Total Tonnes	Waste Tonnes	Strip Ratio	Processed Ore				Cost / oz Au
						Tonnes	Au g/t	Insitu Au Oz	Rec. Au Oz	
			Mt	Mt		Mt	g/t	Koz		$/oz
Aquila-Crow	23	0.840	219.0	195.1	8.2	23.9	1.60	1,228	1,151	1,321
Brolga	26	0.900	180.9	144.8	4.0	36.1	1.56	1,810	1,694	1,068
Diucon	24	0.860	191.9	165.7	6.3	26.2	1.61	1,351	1,267	1,232
Eagle	26	0.900	88.3	75.0	5.6	13.3	1.43	612	569	1,276
Falcon	22	0.820	149.5	130.9	7.0	18.7	1.47	881	821	1,334
Total			**829.7**	**711.5**	**6.0**	**118.2**	**1.55**	**5,882**	**5,502**	**1,220**

Open Pit Designs

Detailed open pit designs were completed for the selected Hemi Run A pit optimisation shells. Table 1.1 shows the ramp design parameters that were applied to the open pit designs.

Table 1.12: Ramp Design Parameters

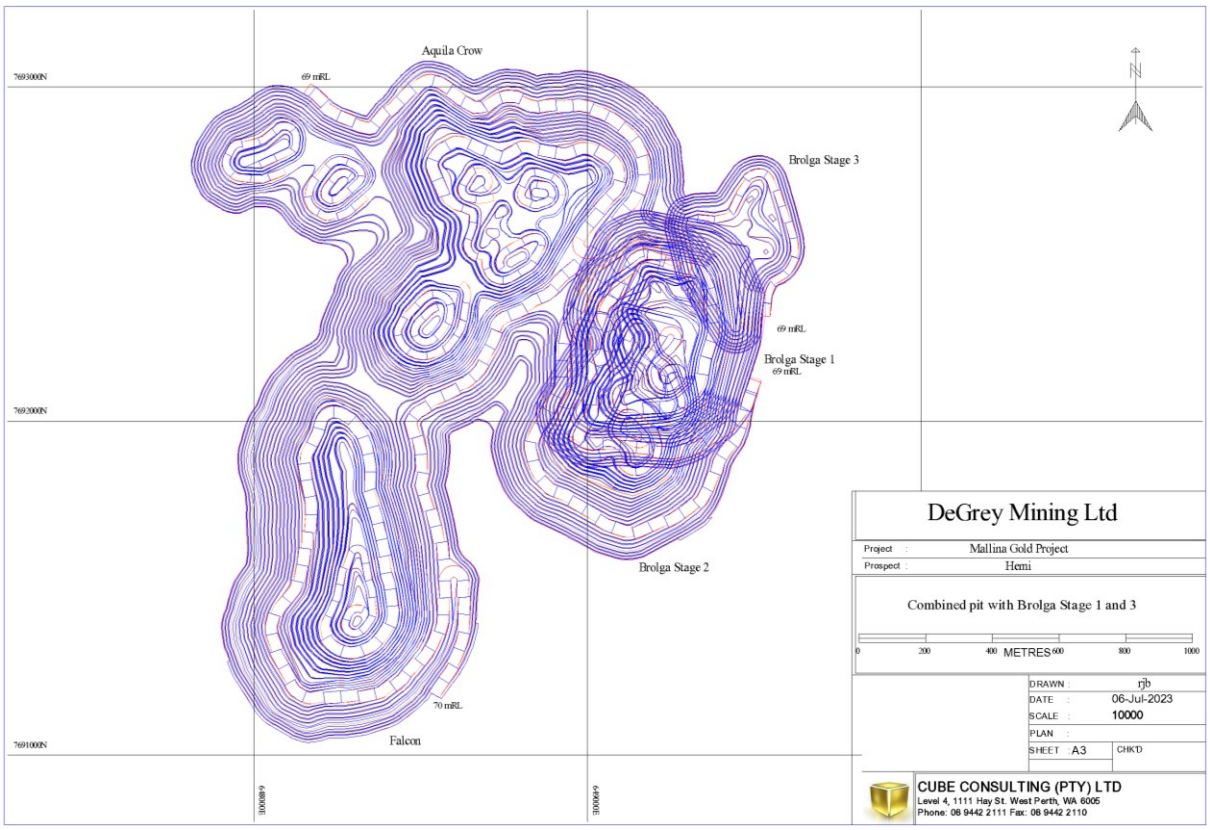
Description		Units	Value
Ramp Width	Double Lane	m	35
	Single Lane	m	22
Gradient		1:x	10
Single Lane		m	Bottom 60 m vertical

The conversion from open pit optimisation shell to detailed open pit design produced an increase from 11 % to 17 % in waste material tonnage mined for a minor increase in ore mined to maintain the overall gold metal mined. The increase in waste mined can be attributed to the conversion of a pit shell to a pit design whilst attempting to maintain a practical pit geometry with access.

The process of designing the open pit encompassed staging of the Brolga pit. The selection of interim pit shells was driven by the objective of maximising cash flows during the initial operational years, while also considering practical mining parameters. The design for Brolga Stage 1 was formulated by identifying the most effective locations for ramps to remove both ore and waste materials. The waste generated from Stage 1 will be repurposed for constructing the run of mine ("ROM") pad and the initial development of the process plant tailings storage facility.

The ramp's geometry has been designed considering practicality, safety and efficiencies of the mining operation. With the plan to use 220 t class haul trucks as the largest mobile equipment in the proposed mining fleet, double lane ramps have a total width of 35 m. In the lower part of the pit, the single lane ramps were designed with a width of 22 m. All ramp designs adhere to a minimum gradient of 10 %, and they incorporate safety berms and water drainage features for safety. Figure 1-19 shows the combined Hemi open pit designs.

Figure 1-19: Combined Hemi Pit Designs (showing Brolga Stage 1)



Abandonment Bund Location

An abandonment bund was designed around the current open pit designs. The bund was designed in accordance with the "Safety bund walls around abandoned open pit mines" guideline from the Department of Industry and Resources. A limiting boundary was generated which specifies the minimum distance from the pit crest the abandonment bund must be located.

Waste Rock Emplacement Design

Three separate waste rock emplacements ("WRE") were designed for the waste rock material. The design volume of the WRE allowed for variable swell factors for different materials, along with a 15 % contingency. Table 1. and Table 1.34 show the respective variable swell factors that were applied and the design volumes. Figure 1-20 and Figure 1-21 show the respective WRE cross section closure design and the WRE design, including the contingency WRE and the abandonment bund.

Table 1.13: Swell Factors for Waste Material

Material	Swell Factor (%)
Cover/Oxide	15
Transitional	25
Fresh	35

Table 1.34: WRE Required Volumes and Design Volumes

Waste Type	Insitu Volume million BCM	Swell Factor	Swell Volume million m³	Waste Destinations	Capacity million m³
Cover	105.7	1.15	121.6	North-West WRE	130.5
Oxide	71.0	1.15	81.6	South WRE	85.3
Trans	63.3	1.25	79.1	North WRE	244.4
Fresh	128.2	1.35	173.1	Tailing Storage Facility	19.0
				ROM Pad	9.9
				Contingency WRE	70.1
Total	**368.2**		**455.4**		**559.2**

In addition to the above, an area to the south west of the Hemi deposits has been set aside as a contingency WRE should there be a necessity for additional or alternative storage of waste material.

Figure 1-20: WRE Cross Section Closure Design

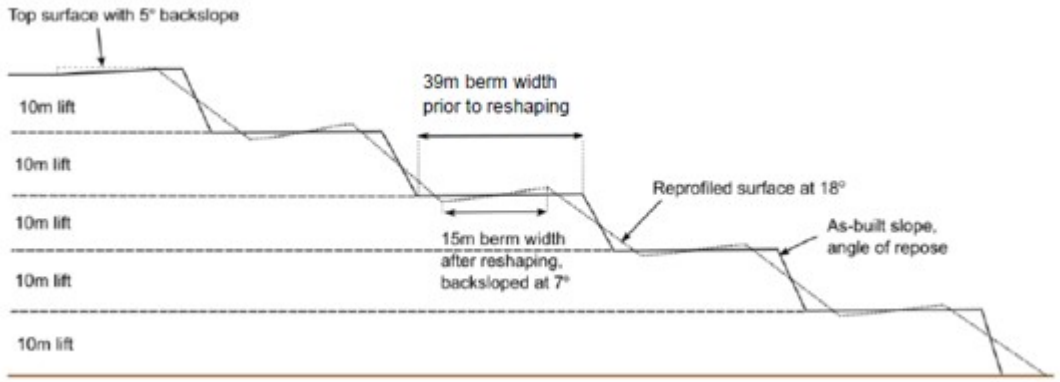
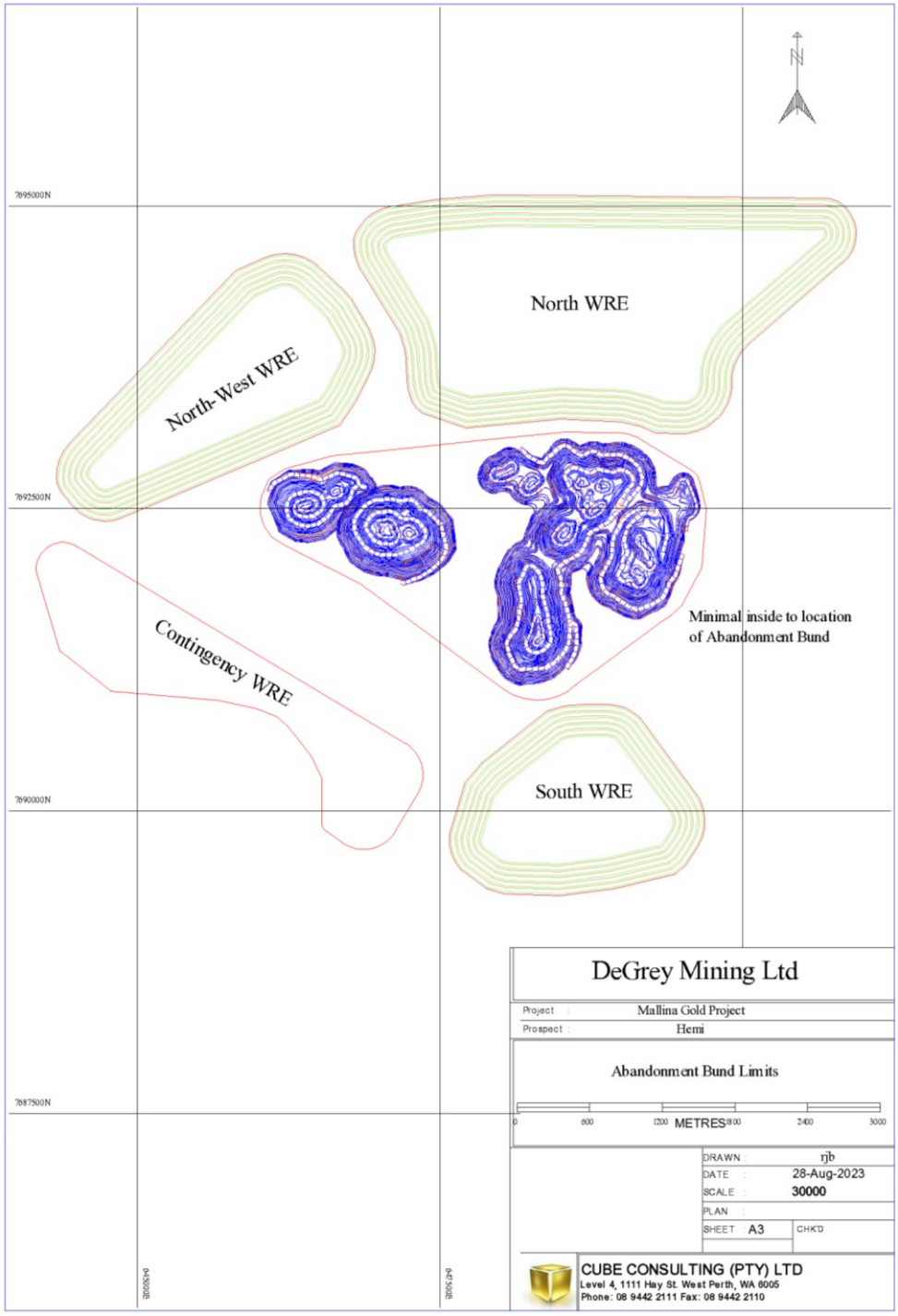


Figure 1-21: WRE Design including Contingency WRE and Abandonment Bund



Mine Schedule

Cube completed a mining production schedule using the final pit designs that were based on the optimisation results from the open pit optimisation which excluded the inferred material. This schedule formed the basis of the reported Ore Reserves and the physicals were provided as inputs to the detailed financial modelling.

The primary aim of the production schedule was to produce an ore feed within the prescribed design capacity of 10 Mtpa. The scheduling process considered the variable mining rate of the cover material, as well as the variable processing throughputs of the different metallurgical domains being processed.

The scheduling was undertaken using Minemax Scheduler software, which is an advanced schedule optimisation tool capable of maximising the project NPV dynamically within prescribed targets and constraints whilst incorporating high grading practices through stockpiling according to the allocated stockpile categories.

By observing the grade-tonnage distributions, and utilising results of preceding schedules, the material was split into lower grade and higher grade categories.

Numerous schedule iterations took place in order to determine a sensible and practical schedule. As schedule iterations were reported certain observations were made and additional scheduling targets were requested with the primary aim being to maximise the number or ounces produced at an appropriate cost per ounce over the first 10 years of processing.

Multiple iterations were carried out to achieve this whilst meeting the applied constraints within a practical and sensible schedule. Constraints were applied to the sequence of mining for the individual deposits. Interestingly, the sequence of mining the Hemi deposits made little difference to the gold production profile. For this reason, the sequence generated by the Minemax Scheduler, which prioritised Brolga and Falcon provided multiple advantages, such as proximity of deposit to ROM, avoidance of palaeochannel in the first two years, wide ore blocks and the simple geology.

With the mine schedule optimised from a sequence of mining perspective, variations in throughputs were applied, which accounted for the softer comminution properties of the oxide and transition domains. In addition to this, a restriction of 20 % oxide ore in the process feed blend was applied to the final mine schedule. The adjusted processing throughput rates for oxide and transition material were 13.2 Mtpa and 11.4 Mtpa respectively versus the design throughput for the fresh domain of 10 Mtpa.

Lower grade material is stockpiled over time to ensure that sufficient ore is available for processing in the latter years of the mine schedule when the vertical rate of descent in the various deposits limits the quantity of ore that can be mined at that time. The maximum stockpile quantity for lower grade ore is approximately 17 Mt in Year 10 of processing.

Figure 1-22 shows the breakdown of key mining and processing parameters of the Hemi Only schedule for the evaluation period and with the first ten year average. Figure 1-23 shows the contribution of each deposit in the mine schedule by year over the evaluation period.

The average gold production for the Hemi Only mine schedule in the first ten years is 529,600 oz Au.

Figure 1-24 shows the breakdown of key mining and processing parameters of the preliminary Hemi plus Toweranna mine schedule (with Toweranna only contributing from Year 8 to Year 10) for the evaluation period and with the first ten year average. Figure 1-25 shows the contribution of each deposit in the mine schedule by year over the evaluation period.

The average gold production for the Hemi plus Toweranna mine schedule in the first ten years is 542,255 oz Au.

Figure 1-22: Hemi Only Mine Schedule - Mining and Processing Parameters

	Construction		Processing												Average
	Year 1	Year 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Years 1 to 10
Ore & Waste Tonnes Mined		25,348,850	93,071,973	91,832,560	90,268,688	91,275,401	90,373,192	103,852,841	99,000,000	91,236,924	90,047,622	55,754,003	7,858,044		
Ore Tonnes Mined		973,094	11,713,834	11,908,413	10,988,039	11,116,024	14,566,342	11,904,729	13,884,276	10,985,039	11,367,244	10,572,251	2,077,188		
Ore Grade Mined		1.86	1.63	1.66	1.67	1.56	1.50	1.49	1.44	1.41	1.59	1.53	1.22		
Waste : Ore Ratio		25.0	6.9	6.7	7.2	7.2	5.2	7.7	6.1	7.3	6.9	4.3	2.8		
Ore Tonnes Processed			10,405,301	10,267,033	10,428,683	10,480,969	10,092,538	10,165,733	10,508,646	10,340,961	10,385,351	10,334,813	10,089,279	8,557,169	10,341,003
Ore Grade Processed			1.80	1.83	1.73	1.69	1.78	1.74	1.70	1.45	1.67	1.55	0.76	0.64	1.69
Sulphur Grade Processed			0.78%	0.91%	0.91%	0.98%	1.10%	1.14%	1.07%	1.18%	1.16%	0.97%	0.93%	0.96%	1.02%
Gold Ounces Produced			**568,999**	**570,000**	**545,000**	**534,791**	**545,011**	**536,197**	**539,233**	**450,255**	**524,812**	**481,701**	**213,679**	**148,271**	**529,600**
% Tonnes from Ore Reserve			100%	99%	100%	100%	100%	100%	99%	99%	99%	98%	99%	97%	99%
Ore Tonnes on Stockpile			2,281,628	3,923,008	4,482,364	5,117,420	9,591,224	11,330,220	14,705,851	15,349,929	16,331,822	16,569,260	8,557,169	-	

Figure 1-23: Hemi Only Mine Schedule – Contribution by Deposit for Evaluation Period

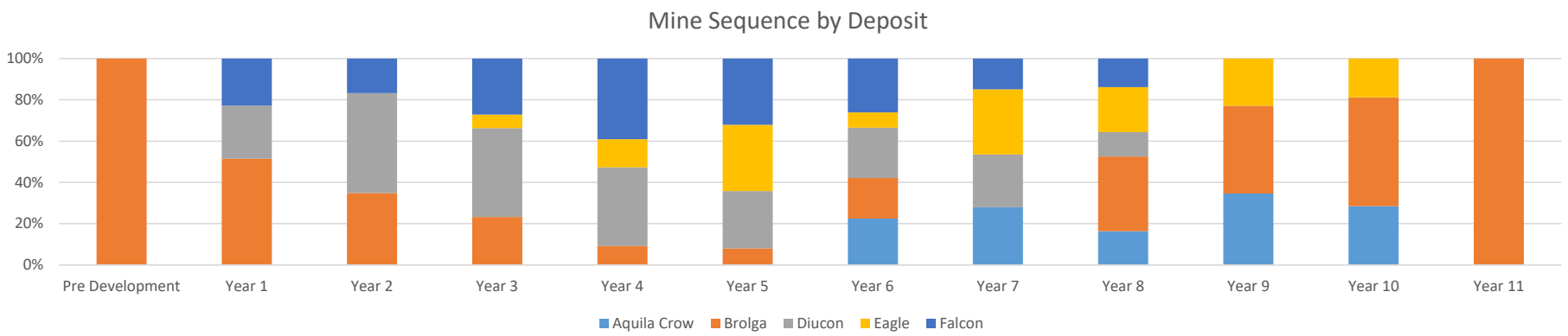
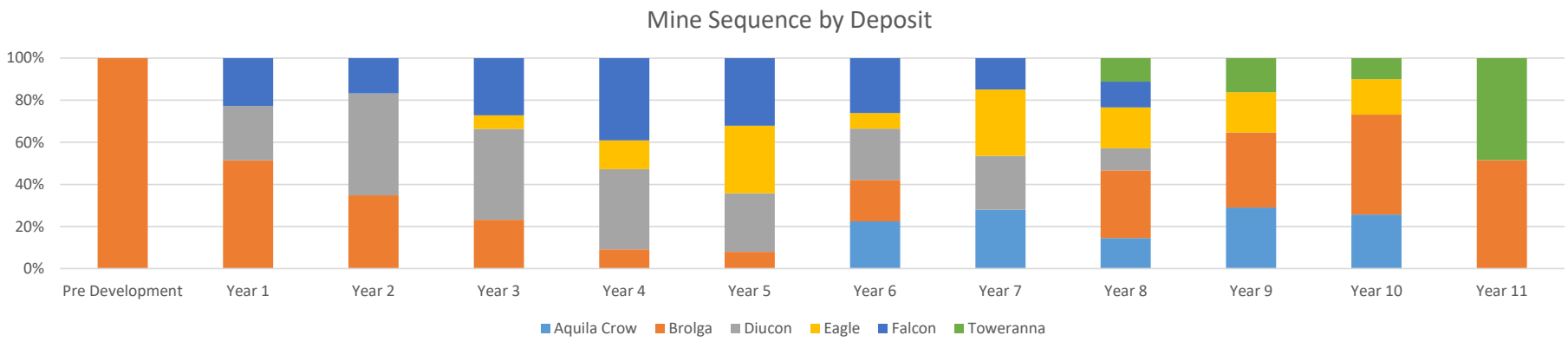


Figure 1-24: Hemi Plus Toweranna Mine Schedule - Mining and Processing Parameters

	Construction		Processing												Average
	Year 1	Year 2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Years 1 to 10
Ore & Waste Tonnes Mined		25,348,851	93,071,972	91,832,559	90,268,686	91,275,400	90,373,189	103,852,841	99,000,000	107,236,924	106,047,613	64,639,347	18,363,324		
Ore Tonnes Mined		973,094	11,713,835	11,908,413	10,988,038	11,116,024	14,566,341	11,904,728	13,884,276	11,944,757	12,532,954	11,333,434	3,319,298		
Ore Grade Mined		1.86	1.63	1.66	1.67	1.56	1.50	1.49	1.44	1.46	1.63	1.56	1.47		
Waste : Ore Ratio		25.0	6.9	6.7	7.2	7.2	5.2	7.7	6.1	8.0	7.5	4.7	4.5		
Ore Tonnes Processed			10,406,807	10,267,034	10,428,719	10,479,341	10,092,538	10,165,733	10,508,646	10,418,319	10,266,845	10,145,106	10,234,815	10,555,825	10,317,909
Ore Grade Processed			1.80	1.83	1.73	1.69	1.78	1.74	1.70	1.58	1.85	1.67	0.91	0.74	1.74
Sulphur Grade Processed			0.78%	0.91%	0.91%	0.98%	1.10%	1.14%	1.07%	1.10%	1.10%	0.96%	0.81%	0.83%	1.00%
Gold Ounces Produced			**569,369**	**570,000**	**545,000**	**534,417**	**545,011**	**536,197**	**539,233**	**494,496**	**576,421**	**512,410**	**265,883**	**214,559**	**542,255**
% Tonnes from Ore Reserve			100%	99%	100%	100%	100%	100%	99%	98%	98%	98%	97%	100%	99%
Ore Tonnes on Stockpile			2,280,122	3,921,501	4,480,820	5,117,504	9,591,306	11,330,301	14,705,931	16,232,369	18,498,478	19,686,806	12,771,289	2,689,525	

Figure 1-25: Hemi Plus Toweranna Mine Schedule – Contribution by Deposit for Life of Mine



Ore Reserve Estimate

At the conclusion of the assessment, it was demonstrated that the project is economically viable considering all relevant factors, testwork and design criteria, culminating in a financial analysis with favourable economic metrics.

The work completed at a feasibility level in support of the modifying factors facilitates the reporting of an updated Ore Reserve estimate for this project in accordance with the guidelines in the JORC Code (2012 Edition).

All Probable Ore Reserves have been derived from the Indicated Mineral Resources contained within the final open pit design and scheduled to be processed through the planned processing facility. No Proved Ore Reserves are reported here. The updated Hemi Gold Project Ore Reserve estimate is shown in Table 1.45.

Table 1.45: Summary of JORC Ore Reserve Estimate - Hemi Gold Project - September 2023

Deposit	Tonnes Mt	Grade g/t Au	Ounces koz Au
Aquila Crow	24.7	1.6	1,259
Brolga	36.5	1.6	1,829
Diucon	26.6	1.6	1,383
Eagle	13.0	1.4	598
Falcon	20.0	1.4	932
Total	**120.8**	**1.5**	**6,002**

The rounding in the above table is an attempt to represent levels of precision implied in the estimation process and apparent errors of summation may result from the rounding.

Included in the waste material are 1.2 Mt of Mineral Resources classified within the Inferred Resource category which received no economic value in the work completed for the reporting of Ore Reserves.

Drill and Blast

George Boucher Consulting was engaged to undertake a drill and blast ("D&B") assessment for the Project to a DFS level and to report on the findings.

The principal D&B considerations for the hemi material were as follows:

- Very hard, high strength fresh rock with an 80th percentile unconfined compressive strength ("UCS") of 150 MPa to 250 MPa;
- Widely spaced joints of 0.1 m to 3.0 m in observations of core;
- Base case primary crusher top size dimension of 1,200 mm (as advised by Grey);
- Blast hole diameter selected based on a combination of;
  - fragmentation target, moderate charge mass per hole to control ground vibration, moderate powder factor to control ore dilution and modelled D&B cost.

A combined design and cost KUZRAM fragmentation model was developed for the analysis of appropriate D&B designs and associated costs. The model was based on rock structure and strength parameters, including rock jointing, true mean spacing and rock strength described as the 80th percentile UCS.

195 representative samples were tested for their UCS and Youngs Modulus ("E) properties as part of the assessment. De Grey assigned the transported cover material as free digging with the remaining proportions of blasting assigned to:

- Mixed ore and waste;
- Bulk waste;
- Emulsion / watergel blasting;
- 5 m and 10 m bench height.

A total of approximately 309 Mm³ of material will be subject to D&B with approximately 22 % on a 5 m bench height and approximately 78 % on a 10 m bench height. The life of mine rock volume split by oxidation, blast type and groundwater conditions were assessed with all blasts utilising a 70 % Emulsion / Watergel 30 % ANFO[6] water resistant blend. While ANFO may be able to be used opportunistically in dry holes in oxide domains, no rock volume was assigned to this type of blasting.

A series of blast designs were developed for the different blast types with powder factors ("PF") ranging from 0.56 in 5 m oxide benches to 1.09 in 10 m fresh benches,

Wall blasting methodologies were derived for fresh rock zones of interim and final pit wall designs and for double bench heights.

D&B cost estimates included drill ownership costs, 5 % allowance for redrilling, contractor margins, fixed cots for explosive establishment, presplit blasting, environmental blasting restriction costs and blasting QA, including engineers and survey reports.

Mining Strategy

The Project consists of six deposits that will be mined using conventional open pit mining techniques. De Grey has in liaison with a number of consultants and mining contractor companies assessed the key drivers for Hemi with respect to the most appropriate mining strategy and methodology for cost estimation.

The key areas in terms of mining strategy that were assessed were as follows:

- Owner operator versus mining contractor;
- Geology and mining engineering;
- Decarbonisation of mining fleet.

The key area in terms of cost estimation that were assessed were as follows:

- Load and haul profile assessment to enable accurate cost estimation;
- Material properties assessment to enable accurate drill and blast cost estimation;

[6] ANFO is a mixture of ammonium nitrate and fuel oil.

Owner Operator versus Mining Contractor

The DFS recommended that De Grey, as a single mining asset company should implement a mining contractor approach for the following reasons:

- Advantage from the 'buying power' of a mining contractor who purchases multiple times the capital equipment and operating spares that De Grey would;
- Leverage off the established systems for safety, training, load and haul, drill and blast, equipment monitoring and equipment maintenance;
- Advantage from not needing to purchase critical spares for all of the major equipment that is located at one operation given that a mining contractor can utilise one set of critical spares across multiple operations;
- Allow a mining contractor to implement a staged decarbonisation strategy over time as equipment reaches the end of its life, as opposed to De Grey owning equipment at its mid-life when decarbonisation strategies require enactment;
- Overall derisking of a critical component of the project that underpins the success of the Project.

Bench Heights and Grade Control

Bench heights have generally been designed at 10 m from a geological and drill and blast perspective, however to align with other areas of the Project that have an inherent conservativeness, there has been an allowance for a considerable amount of mining and drill and blast on 5 m benches, where ore waste boundaries exist, or where improved fragmentation might be advantageous.

Grade control requirements at Hemi are relatively modest with an estimated average of 117 samples per day over the life of mine on patterns of 10 m x 10 m (20 %), 10 m x 20 m (30 %) and 20 m x 20 m (50 %). Grade control cost estimates include a 10 % contingency.

Mining Equipment Sizing

De Grey proposed that an appropriate sizing for excavators and haul trucks for Hemi would be 600 t and 220 t class respectively. This sizing would achieve the required mining rates in accordance with the DFS schedule and was appropriate in terms of the bench height, grade control and selectivity required.

De Grey liaised with an experienced mining contractors in order to develop haul profiles for the Project based on the mine schedule from PFS 2022, so that a formal request for pricing ("RFP") could be distributed to interested mining contractors.

The RFP process included numerous discussions with a number of experienced mining contractors, who as part of their RFP submission provided their input on the appropriate sizing of equipment.

All of the respective mining contractors were in agreeance with the 220 t class sizing of the haul trucks. The RFP submissions also agreed that a 600 t class excavator was appropriate, however there were also recommendations that combinations of different sized excavators, for example, 400 t, 600 t and 800 t combinations might provide advantages where some selectivity in mining is required such as at Aquila Crow, whilst the 800 t excavator (or face shovel) might provide significant advantages in the removal of the free dig transported cover material at increased bench heights. The selection of ancillary equipment was generally consistent across the different mining contractors.

Ramp Width & Ramp Gradient

Based on mine engineering requirements and the use of 220 t class haul trucks, a ramp width of 35 m and a ramp gradient of 1:10 was applied to all open pit designs.

Mine and Pit Dewatering

The Hemi deposits have a 20 m to 40 m depth of highly permeable transported cover material that requires a period of 12 months to dewater prior to the commencement of mining. The project schedule has a 15 month dewatering time frame providing a three month contingency.

The ore domains sit beneath this layer of transported cover material in a more typical fractured rock aquifer with low permeability that is less amenable to ex-pit bore style dewatering and will likely require typical in-pit sumps to manage this style of groundwater.

Waste Material Scheduling

The Hemi deposits have a layer of transported cover material that is approximately 20 m to 40 m in thickness. The transported layer is a permeable sandy material that does not require fragmentation and represents approximately 30 % of the total material movement of Hemi.

The mine schedule proposes a start date approximately nine months prior to processing. The material movement could be facilitated in a period of six months. The additional three months of contingency has been allowed for to ensure that sufficient time is available to construct Stage 1 of the TSF, should inclement weather occur in the nine month schedule.

Geotechnical Parameters

The geotechnical parameters applied to Hemi in this Study are considered technically robust. An extensive geotechnical drill program combined with geological knowledge derived from exploration drilling along with an advanced hydrogeological model has enabled the 3D geotechnical design model to satisfy criteria required for a DFS level design.

Autonomous Equipment

Discussions with the mining contractors during the RFP process provided insight as to the challenges and opportunities that exist with respect to autonomous haulage systems (“AHS”) and autonomous drilling systems (“ADS”).

Two important challenges that the mining industry faces in the immediate future are that there is an ongoing shortage personnel and skills. Exacerbating that challenge is an increasing trend towards even time rosters, which adds to the personnel numbers required at mining operations.

Estimations on the reduction of personnel resulting from the implementation of AHS are varied, however an anecdotal average appears to be that two haul truck operators are typically replaced by one technician (with survey, programming capability). This who are seeing significant advantages in AHS typically quote a three to one ratio with a vision that this can become four, five or six to one in time.

What is evident is that those in the industry who have experience with AHS believe that within the next five years, the existing ‘double edge sword’ will start to disappear. That is, for now at least, it is a challenge to recruit two haul truck operators, and even more of a challenge to recruit one technician (to replace the two), however in time, the ability to recruit the one technician will remove the challenge of recruiting four, five or six haul truck operators, and with that will come production efficiencies and cost benefits, and ideally an overall workforce with increasing skill levels.

Based on the above, De Grey has assumed that its operations will either commence with a partial AHS, or transition to AHS during the first five years of operations.

Decarbonisation of Mining Fleet

With respect to decarbonisation of the mining fleet, De Grey has committed to aligning with Net Zero targets by 2050 or earlier.

Existing technology for large scale mining equipment is predominantly based on diesel powered energy sources. Renewable energy technologies for large sized haul trucks, that is, greater than 100 t class is still in its infancy to a large extent, although advances in technology are occurring with anecdotal evidence suggesting that by approximately 2030, renewable energy sourced haul trucks with capacities of 200 t may be viable.

The timing in accordance with the Project schedule sees the required mining equipment for Hemi being ordered approximately six years prior to the predicted timing for renewable energy sourced equipment to be available, hence it is anticipated that diesel powered equipment will need to be purchased for the Project, whether that be via a mining contractor, or through De Grey on behalf of a mining contractor.

Assuming that there is availability of renewable energy sourced equipment by 2030, De Grey plans to work with the mining contractor in a manner that allows for the replacement of the diesel powered equipment over a time frame that caters for the safety, training, environmental, operating and maintenance protocols that will be part of the new technology.

Mining Cost Estimation

De Grey has had detailed discussions with a number of experienced mining contractors with respect to the Project. To enable an accurate cost estimate for the mining operation component of the Project, De Grey requested one of the mining contractors to develop haul profiles for the life of mine based on the mine designs and mine schedule from PFS 2022.

These haul profiles included the mining of waste for the construction of the WRE's and TSF and the mining of ore for the construction of the lower grade stockpiles and ROM ore stockpiles in accordance with the mine schedule.

A request for pricing ("RFP") that reflected what the likely tender requirements would be, was then distributed to interested parties, who provided cost estimates.

The RFP included, but were not limited to:

- Mobilisation and demobilisation costs;
- Fixed monthly fee structure;
- Clear and grub;
- Load and haul rates by deposit and RL;
- D&B rates by blast design and powder factor;
- Hourly equipment rates;
- Equipment numbers;
- Personnel numbers;
- Options for AHS and ADS;
- Conceptual decarbonisation strategy; and
- Exclusions.

The RFP's that applied to the mine designs and mine schedule from PFS 2022 were then adjusted to the mine designs and mine schedule from this Study.

1.7 Metallurgy

Metallurgical testwork programs have now been completed to a DFS level for the six Hemi deposits of Aquila, Brolga, Crow, Diucon, Eagle and Falcon.

The testwork programs have been completed on representative composite, variability and pilot plant scale samples from each of the identified mineralogical domains at Hemi and have assessed all aspects relating to the proposed process flowsheet.

The testwork programs for Hemi have at a high level been completed over three phases of studies; Scoping 2021, PFS 2022 and this DFS. This DFS also finalised an important component of the overall Hemi testwork program in that it included two pilot plant testwork programs with representative samples from all of the deposits that continuously tested comminution, flotation, cyanidation leach and pressure oxidation characteristics.

Importantly, the key metallurgical parameters from comminution, flotation, sulphide oxidation and cyanidation leaching testwork, have shown little if any variation in outcomes from the original batch testwork on small scale samples in Scoping 2021 through to the pilot plant samples that were conducted on a total of more than 11 tonnes of drill core as part of this DFS in 2023.

Oxide Domain

The oxide domain from the Hemi deposits, which represents approximately 5 % of the mine schedule ore feed tonnes can be described as follows:

- Comminution properties are in the soft range in terms of competency;
- Is free milling in nature and does not require pre-concentration by flotation nor pressure oxidation; and
- Whole ore cyanidation typically achieves gold recoveries averaging 96 %.

Transition Ore

The transition domain from the Hemi deposits, which represents approximately 13 % of the mine schedule ore feed tonnes can be described as follows:

- Comminution properties are in the moderate range in terms of competency;
- Amenable to conventional flotation concentration at relatively coarse grinds (P_{80} of 106 µm), typically recovering an average of 95 % of the sulphide minerals and 50 % to 95 % of the gold to the concentrate stream, at a mass pull of less than 8 %;
- Achieves a sulphide oxidation extent of greater than 95 % within 60 minutes in batch POx testing;
- Cyanidation of the POx residues typically achieves gold recoveries exceeding 95 %;
- Cyanidation of the flotation tailings at a P_{80} of 75 µm typically achieves final tailings residues of 0.06 g/t Au; and
- Demonstrates relatively fast cyanidation leach rates due to the very fine nature of the non floatable gold.

Fresh Ore

The fresh domain from the Hemi deposits, which represents approximately 82 % of the mine schedule ore feed tonnes can be described as follows:

- Comminution properties are in the very hard range in terms of competency;
- Amenable to comminution via high pressure grinding rolls ("HPGR"), with specific energy requirements consistent with industry norms;
- Gravity recoverable cyanidable gold component is typically low for the Aquila Crow, Brolga and Falcon deposits, but moderate for the Diucon and Eagle deposits;
- Highly amenable to conventional flotation concentration at relatively coarse grinds (P_{80} of 106 µm) typically recovering more than 95 % of the sulphide minerals and 80 % to 95 % of the gold to the concentrate stream, at a mass pull of less than 8 %;
- Achieves a sulphide oxidation extent of greater than 95 % within 60 minutes at a conventional POx temperature of 225 °C and pressure of 3,200 kPa;
- Has relatively high levels of inherent carbonate minerals suitable for neutralising the oxidised sulphide component of the flotation concentrate prior to cyanidation leaching, in turn reducing reagent requirements;
- Cyanidation of the POx residues typically achieve gold recoveries exceeding 95 %,
- Cyanidation of the flotation tailings at a P_{80} of 75 µm typically achieves gold residues of 0.04 g/t Au,
- Demonstrates relatively fast cyanidation leach rates due to the very fine nature of the non floatable gold;
- Does not exhibit preg-robbing characteristics during cyanide leaching, nor gold lock-up after pressure oxidation; and
- Produces typical settling rates after flotation, sulphide oxidation and tailings neutralisation.

Metallurgical Domaining

The Hemi deposits were metallurgically domained based on their geological, mineralogical and where applicable in retrospect, their metallurgical characteristics. This domaining been significantly advantaged by 5 m composite multi element analysis across all of the Hemi deposits. Not only has this benefited the metallurgical and mineralogical domaining of the deposits, but has assisted greatly in providing important metallurgical information in relation to mineral composition of the ore zones as part of the mining schedule in the form of sulphide, iron, arsenic and carbonate levels as well as suitable clay contents for TSF construction.

The oxide (or saprolite) domain, which accounts for approximately 6 % of the Hemi gold ounces, can be described as free milling with average gold recoveries readily achieved via conventional carbon in leach ("CIL") processing of 96 %.

The transition (or saprock) domain, which accounts for approximately 13 % of the Hemi gold ounces, generally behaves in a similar manner to the fresh domain displaying semi refractory properties. The addition of a flotation stage to recover the sulphide minerals, which are then oxidised and recombined with the flotation tail, allows the gold to be recovered via conventional CIL processing, achieving gold recoveries in the range of 80 % to 95 % depending on the head grade of the sample. The contribution of the transition domain in terms of percentage gold ounces has increased since PFS 2022. This is the result of a detailed regolith study that identified a sub-domain within the fresh

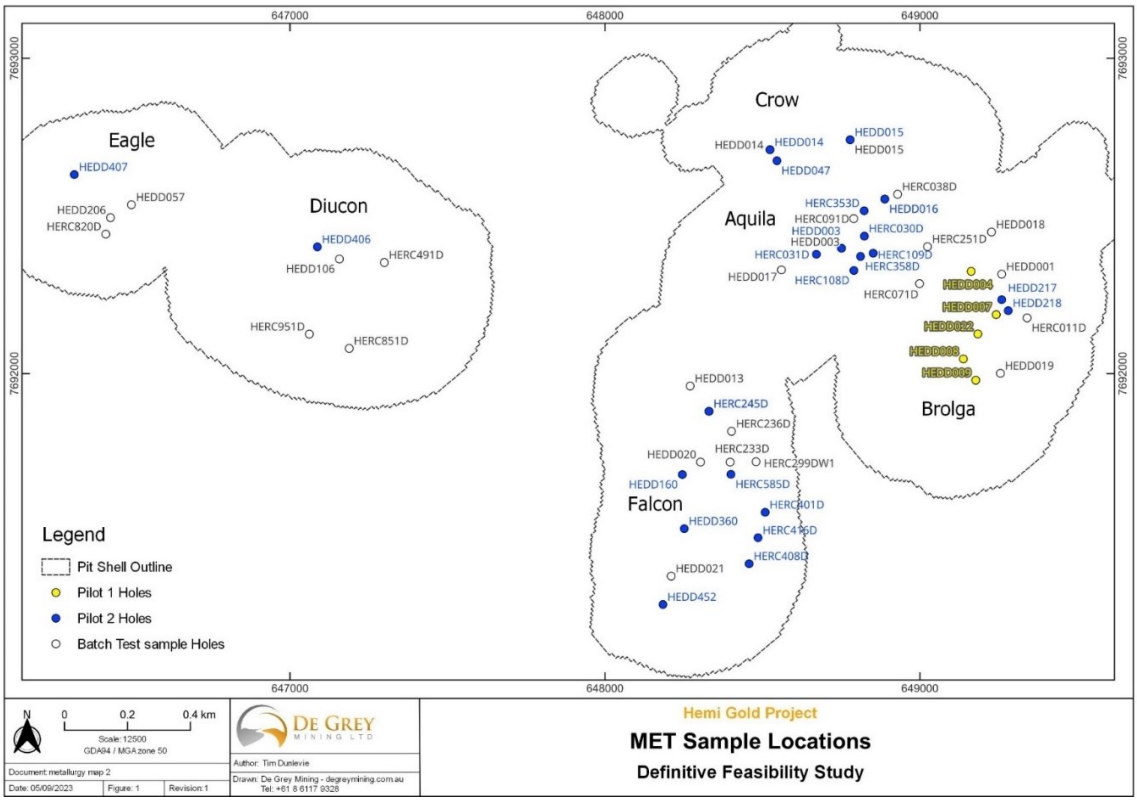
domain that contains weathering in the joints and which has since been classified as transition material.

In addition to the more conventional oxide and transition domains, a kaolinised sulphidic zone ("KSZ") has also been identified and which accounts for approximately 3 % of the gold ounces. This domain, due to the presence of kaolinite, is generally clayey in nature and when tested by itself, has at times produced inconsistent flotation and cyanidation leach results. It is thought that a proportion of these inconsistent results may be the result of clays impacting on the flotation process allowing refractory sulphides to report to the flotation tail. Additional variability testwork is currently in progress to further test this KSZ domain in a blended down format as would be the case in reality (<20 % of KSZ in the sample), removing potential viscosity impacts seen when testing the domain by itself.

The fresh domain, which accounts for approximately 77 % of the Hemi gold ounces, behaves as a semi refractory deposit. Approximately 60 % to 70 % of the gold is recoverable via ultra fine grinding and conventional CIL processing. The remaining gold is contained within the atomic lattice (or in solid solution) of the sulphide minerals, predominantly arsenopyrite. The sulphide minerals which are pyrite and arsenopyrite, are readily recoverable via conventional rougher flotation without any requirement for a cleaner stage. Oxidation of these sulphide minerals recovered in the flotation concentrate renders them leachable via conventional CIL processing.

Figure 1-26 shows a plan view of the drillhole locations that generated the batch samples for testwork and the bulk samples for the first and second pilot plant testwork programs.

Figure 1-26: Plan View of Metallurgical Holes for Hemi Deposits



Metallurgical Characteristics

A full suite of comminution testwork was completed over the respective study phases including:

- Unconfined Compressive Strength ("UCS");
- Bond Crushing Work Index ("CWi");
- Bond Rod Mill Work Index ("RWi");
- Bond Ball Mill Work Index ("BWi");
- Bond Abrasion Index ("Ai"); and
- SAG Mill Comminution ("SMC").

The fresh domains of the Hemi deposits can be described as being in the very hard range of ores in terms of milling competency with rod and ball Bond indices (design) of 23.0 kilowatt hours ("kWh") /t and 19.5 kWh/t respectively. The deposits are generally not amenable to semi autogenous grinding with Axb values less than 35 and abrasion indices are in the moderate to moderate to high range at 0.15 to 0.35.

The 80th percentile values were applied to the design criteria in establishing comminution parameters.

In addition to the above, high pressure grinding rolls ("HPGR") pilot plant testwork was completed as part of the DFS under the direction of Koeppern Machinery Australia at ALS Metallurgy Balcatta on samples from the Brolga, Diucon and Eagle deposits. A Brolga sample containing a blend of 30 % oxide material and 70 % fresh material was also successfully tested.

Table 1.5 shows a summary of the average (and 80th percentile) comminution characteristics for the respective domains of Hemi.

Table 1.5: Comminution Characteristics for the All of the Hemi Deposits

Domain	Samples No.	UCS	Bond CWI	SMC DWI	SMC A x b	Bond Ai	Bond RWI	Bond BWI
		MPa	kWh/t	kWh/m³			kWh/t	kWh/t
Oxide[1]	8	-	-	3.9	-	0.04	7.7	9.3
Kaolinite[1]	7	-	-	0.30	-	0.01	-	11.3
Transition[1]	15	16.1	6.2	3.9	68*	0.07	14.3	14.9
Fresh[1]	37	65.1	10.6	8.7	32*	0.27	20.7	19.1
Transition[2]	**15**	**20.8**	**7.3**	**5.8**	**45**	**0.09**	**16.6**	**17.1**
Fresh[2]	**37**	**74.0**	**14.8**	**9.8**	**29**	**0.33**	**23.0**	**20.0**

Notes 1. *Average Value*
2. *80th Percentile Value*

Earlier testwork demonstrated that there was negligible gravity recoverable cyanidable gold in the eastern deposits of Aquila, Brolga, Crow and Falcon, whilst the Diucon and Eagle deposits, which display quartz veining, provide a tangible benefit from the inclusion of a gravity circuit. More recent extended recent gravity gold recovery testwork has confirmed this earlier testwork. The mine schedule has the Brolga and Falcon deposits processed initially with a gravity circuit not required until the latter part of processing year 2 when the Diucon deposit is scheduled for processing.

Batch and pilot scale flotation testwork demonstrated a negligible dependence of grind size on sulphide mineral recovery at P_{80} grind sizes of 75 micron ("µm") and 106 µm. Sulphide mineral recovery averaged 98 % at a mass pull of less than 8 % for the fresh domain.

Given that the refractory gold component in the fresh domain at Hemi is associated predominantly with arsenopyrite and to a lesser extent pyrite, there is also no advantage to be gained via preferential flotation of any particular sulphide mineral, alleviating the need for a cleaner circuit. To confirm this, a small section of the pilot plant run incorporated a cleaner circuit configuration so that sub samples could be collected for assaying.

The mass pull can be reduced with a cleaner circuit configuration, however this is achieved with a consequent loss in gold recovery due to a lower recovery of sulphide minerals containing refractory gold to the cleaner tail. This reduction in mass pull and gold recovery might be advantageous if the pressure oxidation circuit was designed to be volumetrically limited, however given that the oxygen addition is the limiting design factor to autoclave throughput, the inclusion of a cleaner circuit configuration would provide a negative outcome.

A summary of the flotation test results for all of the Hemi deposits at a P_{80} grind size of 75 µm is shown in Table 1.6.

Table 1.6: Flotation Results for the All Deposits P_{80} 75um

Deposit	Domain	No. of Samples	Mas Pull Avg.	Au Recovery Avg.	Sulphide Recovery Avg.
		#	%	%	%
ALL Hemi	Oxide	8	13.0	69.2	-
	Transition	17	6.7	76.2	95.5
	Kaolinite	8	14.5	74.9	80.3
	Fresh	46	7.7	92.5	98.2
Brolga	Fresh	13	7.0	89.1	97.7
Aquila	Fresh	6	8.4	93.7	98.1
Crow	Fresh	6	12.4	97.3	98.9
Falcon	Fresh	8	7.3	92.6	98.1
Diucon	Fresh	6	6.9	94.3	98.4
Eagle	Fresh	7	5.7	92.4	99.0

The Hemi deposits have had extensive cyanidation leach testwork completed over the three study phases. The fresh domains can be generally described as semi-refractory with approximately 60 % to 80 % of the gold readily leachable in cyanide at a P_{80} grind size of 75 µm.

The remaining 20 % to 40 % of the gold is refractory and is generally present as part of the atomic lattice of the sulphide minerals, often described as being in solid solution. For this component to be amenable to cyanide leaching, the sulphide minerals need to be oxidised, in order to 'release' the gold atoms from the atomic lattice structure of the sulphide.

The refractory sulphide minerals from the Hemi deposits are amenable to all three mainstream sulphide oxidation processes, namely, pressure oxidation, bio oxidation (or bacterial leaching) and ultra fine grinding followed by atmospheric oxidation (Albion). A trade off study as part of PFS 2022 assessed pressure oxidation as the most suitable oxidation process, primarily due to its well proven robust nature and Hemi's favourable mineralogy in relation to this technology. The ability to readily oxidise the sulphide minerals makes the Hemi deposits amenable to conventional CIL processing.

Hemi has the advantage that there has been no evidence of the presence of cyanicides or preg-robbing species. Gold recovery in the cyanidation leach phase is only impacted by liberation, or grind size. A detailed cyanidation leach program was undertaken during PFS 2022 to assess the most appropriate grind size for the grinding circuit based on the impacts on sulphide recovery in the flotation process and cyanidable gold recovery in the CIL circuit.

It was identified that the sulphide recovery in the flotation stage was relatively independent of grind size with P_{80} grind sizes of 75 µm to 150 µm all returning acceptable performance. However, the flotation tail samples displayed grind dependence with P_{80} grind sizes of 75 µm, 106 µm and 150 µm typically returning tailings residues values of 0.04 g/t Au, 0.06 g/t Au and 0.09 g/t Au respectively.

Given that a 0.01 g/t Au improvement in the tailings residue value represents approximately $8.7M/annum of revenue at a gold price of A$2,700/oz, the additional grinding power was deemed to be justified in targeting the finer P_{80} grind size of 75 µm.

Cyanidation leach testwork from the pilot plant testwork program on the combined oxidised flotation concentrate and flotation tail streams was successful with good leach kinetics and minimal dissolved oxygen demand. The combining of the oxidised sulphide concentrate and the flotation tail as a co-leaching product has also been significantly advantaged by the inherent carbonate content of the respective Hemi deposits. This inherent carbonate has assisted in achieving and maintaining target free acid levels during pressure oxidation and has significantly reduced the quantity of limestone and lime required for neutralisation prior to the cyanidation leach stage.

Pilot Plant Testwork

Two pilot plant testwork programs were completed during the DFS phase.

The first pilot plant testwork program comprised of 4.5 t of representative samples of diamond drill core from the Brolga deposit. The continuous pilot plant stages of milling, classification, flotation and downstream testing were completed at ALS Metallurgy (Perth WA). The continuous pilot plant POx stage on the flotation concentrate from the first flotation pilot plant testwork program was completed by Sherritt technologies (Fort Saskatchewan, Canada).

The second pilot plant testwork program comprised of 7.6 t representative samples of diamond drill core from the Brolga (2.7 t), Aquila Crow (1.2 t), Diucon (1.1 t), Eagle (1.1 t) and Falcon (1.5 t) deposits. The pilot plant samples from the Brolga, Diucon and Eagle deposits each underwent batch pilot scale HPGR testwork prior to the continuous milling, classification, flotation and downstream testing stage. The pilot plant samples from the Aquila Crow and Falcon deposits were crushed using a conventional laboratory crusher. Bond indices were then completed on sub-samples to assess any potential benefits of microcracking from the HPGR testwork.

All of the bulk samples from the respective deposits were then processed sequentially so as to generate data specific to each of the deposits. The continuous pilot plant stages of milling, classification, flotation and downstream testing for the second pilot plant testwork program were completed at ALS Metallurgy (Perth WA). The continuous pilot plant POx stage on the flotation

concentrate from the second flotation pilot plant testwork program was completed at ALS Metallurgy (Perth WA).

Table 1.7 shows a summary of the respective pilot plant testwork results.

Metallurgical Recovery

The average metallurgical recovery for the Hemi deposits based on metallurgical testwork results for the proposed process flowsheet is approximately 93 % at a gold grade of approximately 1.5 g/t Au.

Based on testwork to date, a fixed gold final tail residue recovery model is applied of 0.10 g/t Au irrespective of head grade, for forecasting gold production from the mine schedule. The model is suitably conservative, with the majority of batch and pilot plant testwork results typically outperforming the model within the mine schedule grade range of 1 g/t Au to 2 g/t Au.

The conservatism in the 0.1 g/t Au tail residue of the model provides a material opportunity for improvement on the predicted gold recovery during operations and mitigates any risk should there be a reduction in recovery performance from laboratory testwork to full scale production.

Table 1.7: Pilot Plant Results

			Pilot 1		Pilot 2			
			Brolga #1	Brolga #2	Aquila Crow	Diucon	Eagle	Falcon
Feed	Mass Treated	t	4.5	2.7	1.2	1.1	1.1	1.5
	Gold (Assay Head)	Au g/t	1.04	1.26	1.49	1.14	2.15	1.74
	Gold (Calculated Head)	Au g/t	0.90	1.21	0.94	0.96	1.74	1.13
	Sulphide	S^{2-} %	0.68	0.78	1.22	0.88	0.74	1.26
Flotation	Mass Pull	%	6.8	4.8	5.9	6.3	5.1	5.5
	Gold Recovery	%	89.3	81.2	91.0	89.8	94.0	88.3
	Sulphur Recovery	%	96.2	93.4	96.2	94.4	98.2	94.9
Concentrate Analysis	Gold	Au g/t	12.2	25.8	15.1	17.9	27.1	22.7
	Sulphide	S^{2-} %	9.2	17.8	16.5	14.7	17.3	19.9
Sulphide Oxidation	POX Discharge	%	97.9	99.9	99.7	99.1	99.2	98.8
Gold Cyanidation Extraction	POx Residue	%	95.4	96.0	96.4	94.7	96.8	97.1
	Flotation Tail	%	71.0	68.9	56.5	53.5	71.5	66.4
Gold Recovery	POx Residue	%	85.2	78.0	87.7	85.1	91.0	85.8
	Flotation Tail	%	7.6	13.0	5.1	5.5	4.3	7.7
	Total Recovery	%	**92.8**	**90.9**	**92.8**	**90.5**	**95.3**	**93.6**
Residue Grade	Overall Calculated	Au g/t	0.07	0.11	0.07	0.09	0.08	0.07

1.8 Process Description

Wood Group Australia ("Wood") was engaged to complete the process description component for the Hemi Gold Project to a DFS level and to report on those findings. Wood was also engaged to complete the process description component of PFS 2022.

Process Description DFS Scope

The scope for the process description was:

- ROM wall;
- Primary crushing, reclaim tunnel;
- Secondary crushing, screening, coarse ore stockpiling and reclaim tunnel;
- HPGR primary grinding and screening;
- Ball mill grinding in closed circuit with hydro cyclones and trash screens;
- Gravity gold recovery and intensive leaching (future provision only);
- Sulphide flotation with concentrate and tailings thickening;
- Pressure oxidation feed tankage;
- POx of the flotation sulphide concentrate;
- Counter current decantation ("CCD") washing of the POx discharge;
- Neutralisation of the CCD underflow with flotation tailings;
- Leach and CIL gold leaching;
- Loaded carbon elution, gold electrowinning and smelting;
- Tailings neutralisation, thickening and disposal.

Trade Off and Optimisation Studies

The following trade off / optimisation studies were completed:

- Autoclave sizing – one versus two;
- Oxygen supply equipment - cryogenic versus vacuum pressure swing adsorption ("VPSA");
- Flotation equipment – tank cell versus Jameson cell;
- Gravity recovery circuit – conventional cyclone underflow feed versus stand alone structure;
- Mill water tank sizing;
- Crusher and screen feed bin sizing.

Process Flowsheet

The Hemi processing plant is designed to process fresh ore at a dry rate of 10 Mtpa. The flowsheet schematic is shown in Figure 1-27.

Run of mine ("ROM") ore is either loaded via a front end loader from the ROM pad blending stockpiles, or direct tipped via mining haul trucks into the gyratory primary crusher feed bin. An apron feeder directs the ore to gyratory primary crusher. The ore is crushed to a nominal size of minus 170 mm by the gyratory crusher prior to screening and closed circuit secondary crushing with

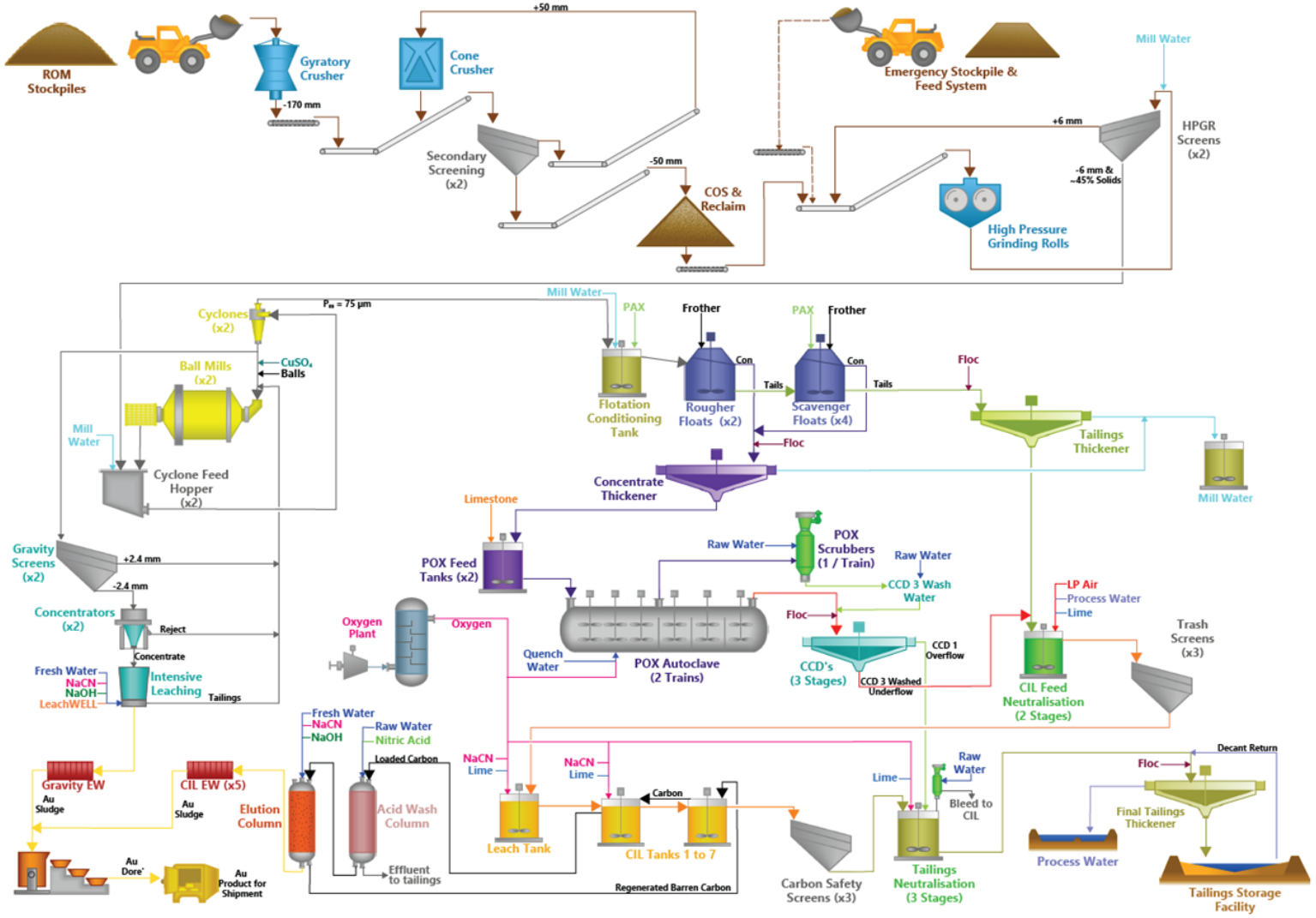
a cone crusher to a nominal size of minus 50 mm. The crushed ore is then temporarily stored on the crushed ore stockpile.

Crushed ore is reclaimed by feeders and fed to the HPGR. The HPGR discharge is then wet screened with the plus 6 mm oversize material recirculated to the HPGR feed conveyor with the minus 6 mm undersize material directed to the ball mill discharge hopper. There are two HPGR screens with each screen feeding a dedicated ball mill circuit.

In the respective ball mill discharge hoppers, ball mill discharge, HPGR screen undersize and dilution water is combined and pumped to the respective cyclone clusters to produce a cyclone overflow of nominally 80 % passing 75 µm. The cyclone underflow gravitates back to the respective ball mill for grinding.

A portion of the each cyclone underflow slurry will be fed to the respective gravity gold circuit once they are installed and commissioned. The gravity gold feed is screened to a nominal size of minus 2 mm to remove oversize material prior to being fed to the centrifugal gravity concentrator. Each of the gravity concentrator tail is recycled to the ball mill feed, whilst the gravity concentrate is fed to the intensive leach reactor. The leach solution from the gravity gold intensive leach is electrowon in a dedicated cell for metallurgical accounting purposes. Copper sulphate is dosed to the ball mill feed for conditioning the ore prior to flotation.

Figure 1-27: Schematic of Proposed Process Flowsheet



The flotation feed is conditioned with potassium amyl xanthate ("PAX") prior to two stages of roughing and four stages of scavenging. Frother is added as required to ensure mass recovery, and additional PAX is added to the scavenger circuit to maintain sulphide recovery. The rougher and scavenger concentrate is thickened prior to storage in the two POx feed tanks.

The flotation tailings are thickened and used to neutralise the CCD thickener underflow prior to feeding the CIL circuit. Flotation thickener overflows are collected in the mill water pond for recycle within the milling area. Process water from the process water pond is treated with Caro's acid to destroy cyanide species prior to making up for water losses in the mill water circuit.

Thickened flotation concentrate slurry from the two POx feed tanks is fed to the two POx autoclaves operating at a nominal temperature of 225°C and 3,250 kPa.g. High pressure oxygen is injected into the autoclaves to oxidise the sulphide sulphur to sulphates. The sulphide oxidation reaction is exothermic and so demineralised water (<5 mg/L chlorides) is added as quench water to provide cooling and temperature control within the autoclaves.

After oxidation of the sulphides has occurred, the leached slurry is discharged from the autoclaves and subjected to two stages of slurry flash cooling to return it to atmospheric pressure. The steam flashed from the slurry in the flash vessels is scrubbed of entrained slurry and the solids in a venturi scrubber prior to release to the atmosphere.

The flash cooled slurry is washed in the CCD circuit with the scrubbing liquid from the vent scrubber and raw water makeup to wash the acidic liquor from the oxidised solids. Three stages of CCD washing are provided. The wash liquor flows from CCD 3 overflow to CCD 2 overflow and then to CCD 1 overflow, which flows counter currently to the slurry. The wash liquor from CCD 1 overflow containing free acid, base metals and iron and arsenic in solution is sent to the tailing's neutralisation circuit. The slurry flows from CCD 1 underflow to the feed of CCD 2, the CCD 2 underflow slurry flows to the feed of CCD 3. The CCD 3 underflow slurry is mixed with the thickened flotation tailings where carbonates in the tailings react and neutralise residual acid. Low pressure air is injected into the tanks to oxidise any ferrous iron to ferric iron as well as stripping carbon dioxide out of the slurry. Milk of lime is then added to the neutralised slurry achieve a pH of 10 prior to cyanidation for gold recovery.

The neutralised slurry is screened at 0.8 mm to remove any trash and scale prior to entering the CIL circuit. A single leach tank, which can be converted to a CIL tank if required, utilises a high shear mixer and down agitator shaft for oxygen addition as well as the addition of sodium cyanide for leaching of the gold during the 2 hour residence time. The leach tank gravity overflows to the remaining seven CIL tanks that are arranged in series (but capable of being bypassed) and additional oxygen is added as required to assist the leaching of gold. Activated carbon ("carbon") is transferred counter current to the slurry flow to maximise gold recovery. The movement of carbon in the circuit is controlled by intertank screens and carbon advance pumps.

A split Anglo American Research Laboratories ("AARL") process is used to elute gold from the carbon. The nominal carbon movement through the CIL and AARL circuit is 20 t/day over six days, or 120 t/week. The AARL circuit has capacity to process more than 200 t/week should higher gold grade ore be processed as compared to design.

Loaded carbon is transferred from CIL tank 1 to the loaded carbon screen where it is separated from the leach slurry and washed prior to discharging into the acid wash column. The carbon is soaked with a dilute nitric acid solution, washed, and then hydraulically transferred to the elution column for eluting the gold from the carbon. After the gold elution process, the carbon is regenerated in a carbon regeneration kiln under a steam atmosphere. The regenerated carbon discharges into a quench vessel and is then hydraulically transferred to the barren carbon screen where it is directed to the last CIL tank.

The gold elution solution is then electrowon in five dedicated electrowinning cells for the recovery of a gold sludge. Once electrowinning of the gold is complete, the spent electrolyte is directed to the CIL circuit to utilise the hydroxide and cyanide in solution as well as allowing recovery of any residual gold in solution.

The gold sludge that is recovered from the electrowinning cells via high pressure water washing of the cathodes is then filtered and dried. The electrowon gold is then calcined and smelted to produce gold doré.

The CIL tailings discharge from the CIL circuit via 0.8 mm aperture carbon safety screens, which protect against carbon losses, to the tailings neutralisation circuit where the tailings are mixed with the CCD 1 overflow solution. The carbonate in the CIL tailings neutralises the acid in the CCD 1 overflow in the first neutralisation tank and then lime is added in subsequent tanks to increase the pH to a nominal level of 10 for the removal of most metals in solution. Iron in the CCD 1 overflow solution complexes residual cyanide to ferrocyanide and ferricyanide. Oxygen is then added to oxidise any ferrous iron to ferric iron which in turn precipitates as a hydroxide. A gas scrubber captures the off gasses from the neutralisation tanks and if hydrogen cyanide ("HCN") gas levels exceed safe levels, then sodium hydroxide is added to recover the HCN as sodium cyanide for recycle to the CIL circuit.

The neutralised tailings are thickened prior to pumping to the tailings storage facility ("TSF") for permanent impoundment. Decant water from the TSF is returned to the tailings thickener to minimise suspended solids contamination of the process water pond and the tailings thickener overflow solution is directed to the process water pond for reuse in the plant.

Engineering

Process flow diagrams ("PFD") were developed and then used to generate the mechanical equipment list ("MEL"), the electrical equipment list ("EEL") and ancillary equipment lists. In conjunction with this, Wood used its extensive in-house data base and project experience to assist with the level of engineering required within the Study timeline.

Short form technical specifications were then compiled and issued to vendors for budget pricing, with technical bid evaluations undertaken following receipt of vendor responses and recommended pricing provided to the estimating team for inclusion in the capital cost estimate ("CCE").

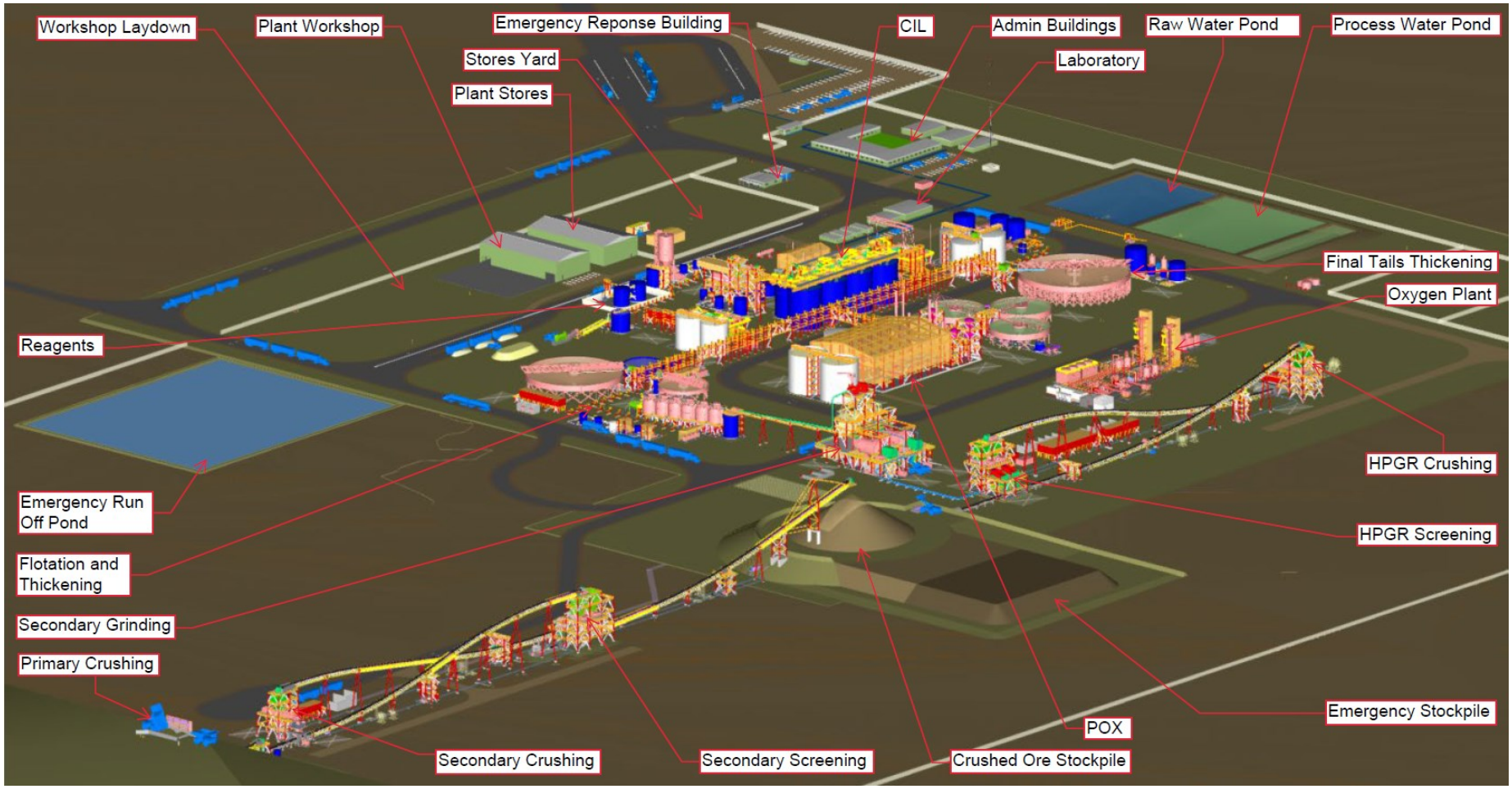
The process plant layout underwent a detailed review during the DFS phase with De Grey, Wood and other key stakeholders all contributing to the final outcome. The DFS process plant layout is shown in Figure 1-28.

Finalisation of the layout enabled the respective engineering disciplines to review and finalise the commodity material take-offs ("MTO") for input into the CCE. The engineering team then reviewed the responses received from various contractors following submissions of unit rate schedules against initial preliminary MTOs to support the build-up of the CCE.

The engineering team assessed the level of design development in each discipline and area in order to assign a growth allowance for the estimating team to apply. The project team conducted a contingency analysis to review sensitivity over the range of pricing that was received and evaluated. This analysis was then used to determine the appropriate contingency for the CCE.

Where the development of discipline specification, design criteria or basis of design documents were limited, Wood standard documents were utilised by the respective engineering disciplines.

Figure 1-28: Process Plant Isometric



Process Plant Execution Plan

For the purposes of the DFS, the process plant delivery model was based on an Engineering, Procurement and Construction Management ("EPCM") execution model with horizontal construction packages. Major LLI and agreed tagged equipment were to be tendered, procured and "free-issued" to construction contractors for installation. Horizontal construction packages were priced against commodity MTOs and associated schedule of rates.

During the execution phase of the Project each package could be further defined based on risk (size and complexity) and capability/capacity of the contractors available, to establish the most appropriate commercial framework. This enables De Grey to select "fit for purpose" contracts and spread the work, factoring in contract size, personnel and resource requirements, and local content.

During the detail design phase opportunities will be assessed where sections of the process plant can be either modularised, pre-assembled or prefabricated off-site, to allow for efficient construction and installation on-site. This will reduce the amount of skilled labour required on-site during construction.

Schedule

The interim project schedule ("Schedule") was developed during the DFS for the entire project at level 3 detail based on information from PFS 2022 and this Study as it became available. The implementation phase for the process plant has been detailed based on logic, actual as-built durations and recent project experience from Wood's data base and in-house knowledge. Information relating to non process infrastructure ("NPI") was provided by De Grey and includes the following:

- Permitting and approvals;
- Mining schedule;
- Mine dewatering bore drilling and water management infrastructure;
- Accommodation village; and
- Other area infrastructure.

The project phases from the Schedule are as follows:

- Approvals Phase;
  - Grant of mining tenement/lease;
  - Ministerial Decision –– EPBC approval and EPA approval for preliminary works;
  - Proponent Decision - EPA Approval to commence construction and completions works;
  - Secondary Approvals granted;
- Engineering & Design Phase;
  - Detailed engineering and design;
  - Place orders for major equipment packages;
  - Design maturity sufficient to award major construction contracts;
- Contracts & Procurement Phase;
  - Award major construction works contracts;
  - Award of critical SP1 vendor data equipment packages for detailed engineering and design;
  - Award of critical SP2 supply equipment packages for construction phase work by the required on site ("ROS) dates;

- Construction Phase;
  - All necessary approvals in place to commence all construction work fronts;
  - Enabling works carried out in time to support main construction works;
  - Receipt of all SP2 supply equipment packages for installation works to be carried out;
  - Erection of all plant facilities and non-process infrastructure;
  - Execution of works as per Schedule to achieve first gold doré in July 2026;
- Completions Phase;
  - C1 - Construction verification completion;
  - C2 - Pre-commissioning with equipment energisation;
  - C3 - Functional commissioning;
  - C4 - Process commissioning;
  - C5 - Performance Testing.

Collaborative schedule risk review workshops were conducted with the final risk analysis on the Schedule returning a contingency provision of 2 months for schedule risk on a P_{50} certainty analysis, or 3 months for schedule risk on a P_{80} certainty analysis. The P_{80} duration is succeeded by 10 days of inclement weather allowance for a total of 3.5 months contingency on P_{80} certainty.

The processing plant CCE and operating cost estimates are presented in the Capital Cost Estimate and Operating Cost Estimate sections of this summary.

1.9 Tailings Storage Facility

CMW Geosciences ("CMW") was engaged to complete a TSF design report for the Hemi Gold Project. CMW have previously provided TSF design input to Scoping 2021 and PFS 2022, where a tailings disposal facility options assessment identified an Integrated Waste Landform ("IWL") design as the most appropriate option.

An IWL design aligns with Department of Mines, Industry regulation and Safety ("DMIRS"), Australian National Committee on Large Dams ("ANCOLD"), Global Industry Standard on Tailings Management ("GISTM") guidelines and International Council of Mines and Metals ("ICMM").

The TSF design is based on a ANCOLD (2019) design consequence category of "High B". This consequence category is based on a damage type of 'Major' and a population at risk ("PAR") of >10 and <100. This consequence category was assessed based on the results of dam break studies.

Conformance with GISTM guidelines stipulates that the TSF design should be based on an ANCOLD consequence category of 'Extreme'. Although not required for the Project location, the design engineer determined that the technical aspects of the TSF design were substantially compliant with the 'Extreme' consequence category. Other aspects external to the technical design will be the responsibility of De Grey if the TSF is to be fully complaint with the GISTM guidelines. The ICMM document on '*Tailings Management Good Practice*' has similar aims as the GISTM.

The TSF design has two cells (100 Mt and a +30 Mt) that account for the processing throughput rate of 10 Mtpa to produce consolidated tailings at a dry density of 1.4 t/m³. Geotechnical investigations were undertaken in the form of test pitting to confirm that the proposed TSF location was suitable and hydrogeological monitoring bores have been installed. The TSF design accounted for the site conditions, climate, surface conditions, regional geology and pit geology.

TSF Design

The design and operating objectives for the TSF are to:

- Meet safety and environmental objectives;
- Optimise the removal of supernatant water from the facility and return it to the plant for re-use in processing;
- Reduce environmental risk by maximising water recovery and managing the potential for seepage losses downstream;
- Minimise the risks to personnel operating in the open pit in the unlikely event of tailings breach;
- Provide a safe, stable non-polluting, structure during operation and closure.

Design Storage Capacity

The TSF design storage capacity is based on:

- Annual tailings production at 10 Mtpa;
- Cell 1 of 100 Mt for initial 10 year mine life, plus Cell 2 of 30 Mt for an additional 3 year mine life, for a total storage capacity of 130 Mt;
- IWL tailings parameters;
  - 1.4 t/m³ (dry) above ground facility;
  - Nominal 45 % to 50 % w/w solids
  - Average beach slope 1 %

Site Conditions

The Project has a semi-arid climate with hot summers and mild winters. Climate data utilised in the design provided by De Grey was as follows:

- Average annual rainfall of 329 mm;
- Mean annual evaporation of 3,590 mm;
- 1:1,000 year (0.1 %) AEP 72-hour event of 577 mm;
- Probable maximum precipitation (“PMP”) 6 hour event of 950 mm (BoM, 2003, Generalised Short Duration Method).

Surface Conditions

The Project site and its immediate surroundings are generally flat with open woodland comprising of small to medium mallee trees, scattered shrubs, and perennial grasses (typical savannah environment) with an approximate RL of 79 m AHD on the western boundary to approximately 80 m AHD on the eastern boundary. The broader region is also generally flat with sparse creek systems emerging from the catchments of isolated duricrust hills and ranges.

Geology

The published geological map (*1:250,000 Port Hedland Geological Survey of Western Australia*) describes the site as being overlain by colluvium and/or residual deposits, sheetwash, talus, scree, boulder, gravel, sand and may include minor alluvial or sandplain deposits, local calcrete and reworked laterite. The site is underlain by the Mallina Basin which includes metasediments of interbedded shale, siltstone, and medium to fine-grained greywacke.

Based on borehole drilling during PFS 2022, the TSF site has surficial materials comprising alluvial deposits (sand and silt) which are approximately 15 m to 20 m in thickness. There is also some clay and cemented material (ferricrete) near the surface within the surficial deposits, with the bedrock comprising granitoid rock.

The pit geology predominantly comprises quartz diorite, diorite and sedimentary rocks. The geological profile comprises approximately 40 m of transported material over weathered rock. De Grey identified areas of upper and lower saprolite within the Hemi deposits. These areas are dominated by kaolin clays which have been modelled by De Grey using a mineralogy dataset.

A geotechnical assessment of the clays at Hemi was conducted to assess their suitability for construction of the upstream clay zone. The clay materials to be targeted were to have a minimum of 30 % passing 75 µm and be of low to medium plasticity. 14 individual and 3 composite samples were tested at Western Geotechnical (NATA registered) in Perth. The samples were generally low plasticity with sand or sandy clay and a range of 52 % to 99 % passing 75 µm.

Hydrology

The TSF site is located between the Yule River and Turner Rivers in an area of sheet flow with no major defined drainage channels. Significant flood events, 0.1 % AEP or 1:1,000 year produce average depths of 300 mm with maximum depths of 500 mm and low average flow velocities of 0.4 m/s with maximum velocities of 0.8 m/s, compared to 2.0 m/s where rock armouring is recommended.

Sub Surface and Foundations

CMW carried out a geotechnical investigation of the proposed TSF site between March 2022 and May 2022. The scope of work completed comprised of 47 test pits excavated to depths of up to 2.3 m using an excavator to investigate the underlying soil conditions and facilitate sampling for laboratory testing.

The ground conditions encountered and inferred from the investigation of the TSF site are largely homogenous. This soil profile was consistent with the published geology for the area and can be generalised and split according to the following subsurface sequences:

- Sand;
- Clayey Sand to Sandy Clay; overlying
- Ferricrete / Laterite.

All test pits refused on these cemented lateritic layers at similar depths ranging from 2.2 m to 2.8 m. Iron cementation depths varied, and laterite was encountered just below the surface in one test pit. The gravel was of a colluvial deposition.

Based on the results of the sub-surface investigations, the following was adopted in the TSF design:

- Topsoil to a maximum depth of 0.2 m will be removed from the TSF footprint for Stage 1;
- An underdrainage system comprising slotted pipes wrapped in aggregate and geotextile will be installed along the upstream toe of the TSF at the north western side of the TSF, where the ground levels are lowest;
- The foundation of the entire TSF basin will be compacted to a depth of 0.3 m;
- Cutoff trenches under the perimeter embankments, to nominally depth of 1.5 m to 2 m below ground level founded on sandy clay have been included in the embankment design to reduce horizontal seepage losses.

Seismicity

The project area is located in a region of low to moderate seismic risk. Based on a seismic study undertaken the following parameters were adopted in the TSF design:

- Operating Basis Earthquake (OBE), 1:500 year AEP, 0.04g
- Safety Evaluation Earthquake (SEE),1:5,000 year AEP, 0.12g
- Maximum Credible Earthquake (MCE), 1:10,000 year AEP, 0.2g

Hydrogeology

A hydrogeological investigation was conducted at the TSF site and surrounds. This investigation comprised 11 bore holes using RC drilling techniques to depths of between 15 m and 24 m. The bore holes encountered predominately silty sand and sandy silt.

Falling head permeability tests were conducted in all of the bore holes, which were cased with slotted pipe in the bottom 6 m to 12 m. The results of the falling head permeability tests in the bores indicate that the average permeability of the top 15 m generally varied between 2 x 10^{-6} and 1 x 10^{-5} m/s with an average of 8 x 10^{-6} m/s).

Monitoring wells have been installed across the site and show water at approximately 6 m below surface from an unconfined aquifer. The groundwater flows in a north to north westerly direction and shows relatively high permeability across the near surface alluvial deposits. The groundwater in the Hemi area is understood to generally be of good quality (900 mg/l to 1,300 mg/l TDS and pH neutral).

TSF Storage Characteristics

Cell 1 has been designed with a storage capacity of 100 Mt of tailings. The TSF construction has been divided into stages based on the mRL or height of the embankment. Table 1.8 shows the storage capacity for each stage based on an in-situ dry density of 1.4 t/m³. Cell 2 will have a storage capacity of 30 Mt and will be constructed to the same crest level as Cell 1.

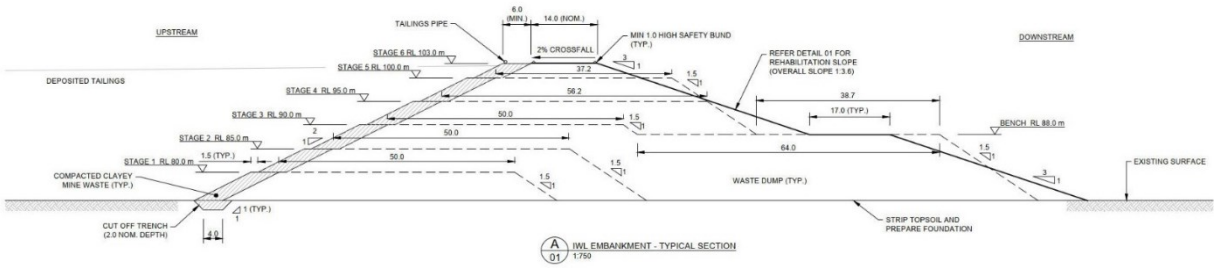
Table 1.8: TSF Cell 1 Storage Volume and Storage Capacity

Stage	RL	Tailings Area	Storage Volumes	Storage Capacity
	m	ha	Mm³	Mt
1	80	175	4.6	6.4
2	85	290	17.5	24.5
3	90	301	32.4	45.4
4	95	308	47.7	66.8
5	100	316	63.4	88.8
Final	**103**	**320**	**73.0**	**102.2**

Embankment Design

The embankments of the TSF will be zoned with a 6 m wide upstream zone upstream zone of low permeability roller compacted clayey mine waste and a 14 m wide downstream zone of general, traffic compacted mine waste. The low permeability clay materials will be sourced from within the Brolga pit area. Mine waste will form the bulk of the embankment and will be sourced from mining operations. The downstream zone will provide the bulk strength and will buttress the low permeability upstream embankment zone. Figure 1-30 shows a typical embankment cross section.

Figure 1-29: Typical Cross Section of TSF Perimeter Embankment



The TSF embankment will be benched during operations and the benching reprofiled for closure. The downstream zone has nominally 50 m wide running surface to allow construction of the integrated waste landform using the mining fleet.

The final landform overall slope requirements have design slopes of 1(V):2(H) upstream and 1(V):3(H) minimum downstream with a 17 m wide intermediate berm. The 20 m wide embankment crest will have a 2 % cross-fall towards the upstream side with a minimum 0.5 m high mine waste windrow at the downstream crest and above ground tailings pipeline at the upstream crest.

Water Recovery System

The proposed TSF will have a central decant comprising a rock ring filter wall. Access to the decant will be by a decant accessway constructed using mine waste. The decant structure and accessway will be raised along with the perimeter embankments. Recovered supernatant water will be pumped to the plant for re-use in the process at approximately 1,400 tph.

Seepage Control

Seepage control at the TSF is managed with the incorporation of the following measures within the design:

- A cutoff trench under the upstream zone of the embankment that extends around the full perimeter of the facility;
- The upstream embankment zone will be constructed using low permeability suitable clay material;
- Moisture conditioning and compaction of in-situ clay to a nominal depth of 0.3 m on the TSF floor to achieve k <10- 8 m/s. Where the in-situ clay does not reach this specification, then suitable clay material ex-pit would be utilised. A contingency of 20 % has been allowed for;
- Moisture conditioning and compaction of low permeability of suitable clay material ex-pit to a nominal depth of 0.5 m and a radial extent of 300 m radius from the decant;
- Inclusion of an underdrainage system;
- Continuous recovery of decant water from the facility and re-use in the process plant;
- Provision of temporary pumps to achieve early water return from the TSF;
- Monitoring bores installed around the TSF.

Structural Stability

Stability analyses were undertaken to assess the stability of the TSF embankment up to a maximum crest height of RL 103.5 m, equivalent to the design embankment height of 30 m. The analyses were undertaken in general accordance with ANCOLD (2019). Stability analysis indicated FoS exceeding 2.0 versus recommended values of 1.5. A dam break assessment was also completed on the design of the final stage of the TSF.

Design and Construction Details

The embankment of the TSF will be a zoned embankment and raised in five stages. The details of the embankment volumes for each stage is shown in Table 1.2020.

Table 1.20: Summary of Embankment Material Volumes

Stage	RL	Upstream Zone Volume	Downstream Zone Volume
	m	m³	m³
1	80	335,000	2,004,000
2	85	184,000	2,450,000
3	90	186,000	9,125,000
4	95	188,000	1,580,000
5	100	190,000	2,330,000
6	103	115,000	590,000
Total	**103**	**1,198,000**	**18,079,000**

Freeboard

The proposed TSF has been designed such that a 1:1,000 year AEP 72-hour duration storm event can be temporarily stored on top of the facility. The design assumes correct operational controls are adhered to and that water is continually removed from the facility, such that minimum freeboard allowances are maintained.

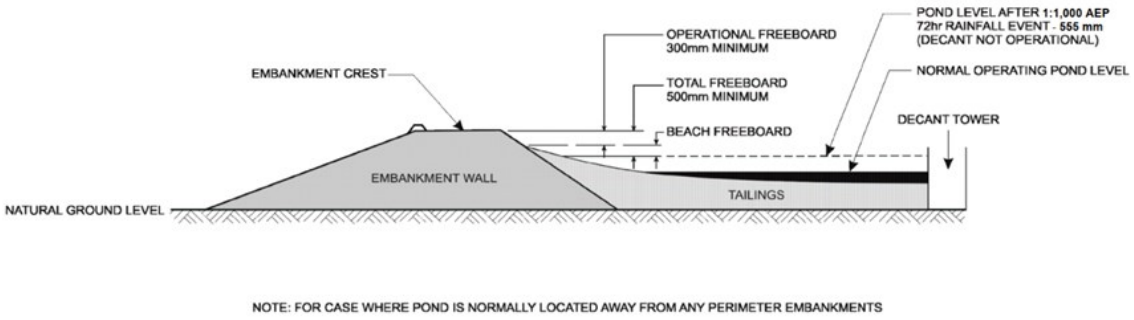
The design makes provision for a minimum 1.1 m total freeboard comprising minimum operational freeboard (vertical height between the tailings beach and embankment crest) of 300 mm, a minimum beach freeboard of 200 mm, and allowance for the 1:1000 yr. AEP 72 hour event of 577 mm.

ANCOLD guidelines (2019) also recommend an allowance for wave run-up for 1:10 AEP wind for a 'High B' consequence category TSF, although with perimeter tailings deposition and an expected beach slope of 1 %, the separation distance between the perimeter embankments and design storm pond will be adequate to prevent wave action reaching the embankments.

Figure 1-30 shows the freeboard nomenclature. For a 1:1,000 year. AEP, 72-hour duration rainfall depth of 577 mm, the TSF is designed for a minimum temporary storage of 1,811,800 m³.

The GISTM guideline requires temporary storage for a 6-hour Probable Maximum Flood storm volume of 2,980,000 m³, which is greater than a 1:10,000 AEP 72 hr. event of 768 mm. The depressed cone, resulting from the tailings beach angle on the top surface of the Cell 1 TSF should provide for a volume greater than 5,000,000 m³, which would comply with the GISTM requirements.

Figure 1-30: Freeboard Nomenclature



Closure Considerations

The closure objectives for the TSF are to leave the facility in a safe, stable, erosion resistant and non-polluting state. The closure concept for the TSF provides for:

- The surface of the TSF and embankment batters will need to be erosion resistant;
- A store and release cover system design to reduce infiltration of water into the tailings profile and allow excess water which may form temporary ponds to evaporate.

The downstream slopes of the TSF perimeter embankments will be rehabilitated as part of the waste dump rehabilitation. The final downstream slopes as designed by Mine Earth will comprise a 17 m wide berm, at 15 m vertical height and batter slopes at 18 °, in order to allow for waste dump construction utilising predominantly oxide waste materials.

The final tailings surface will grade to the decant area. Once tailings deposition has been completed within the TSF and the top surface of the tailings has gained adequate bearing capacity the surface will be covered with a store and release cover (minimum thickness 0.5 m). The store and release cover will comprise silty/clay gravel mine waste overlaid with a nominal sand topsoil layer.

1.10 Infrastructure

The Project is located approximately 85 km by road south of Port Hedland in the Pilbara region of Western Australia. Existing infrastructure capable of servicing the Project includes:

- Two lane bitumen highways, the Great Northern Highway and North West Coastal Highway;
- Two independent network grid power supplies, inclusive of the South Hedland to Karratha 220 kV power transmission line, the alignment of which is approximately 30 km from the Project site;
- The port of Port Hedland, a bulk export and materials importation facility;
- The international airport at Port Hedland;
- Existing combined mobile (cell) tower and optic fibre / wireless communications.
- Two gas pipelines, the Pilbara Energy gas pipeline and the Wodgina Mine gas lateral;

Power Supply

ECG Engineering Pty Ltd (“ECG”) were engaged to undertake a DFS level assessment of potential power supply options for the Project. ECG previously completed Scoping 2021 and PFS 2022.

Three alternative non-binding power supply proposals from Horizon Power, Alinta Energy and APA Group were assessed as part of the PFS. The former two proposed a power supply via a grid connection to their generation facilities in Port Hedland, whilst the latter proposed a power supply via an on-site gas fired power generation facility.

Term sheets and development schedules are well advanced with all parties and De Grey is actively targeting the finalisation of a Power Purchase Agreement (PPA) prior to FID. All three proposals include a renewables pathway either at commencement of the supply contract and / or during the term of the contract.

Water Supply

Anthony Elder Consulting Pty Ltd ("Elder Consulting") was engaged to undertake a DFS level assessment of the water management system for the Project and to report on those findings.

The outputs from the groundwater model on a quarterly basis along with water quality data were utilised in designing a robust pumping and piping system that will manage the Project's water requirement.

The water management system would initially comprise of approximately 60 dewatering bores and 20 reinjection bores with approximately 100 dewatering bores and 30 reinjection bores required over the life of the mine. Typically, around 40 to 60 bores will be operational at any one time over the life of mine and a dual header pipe arrangement has been incorporated to allow for the management of Type I and Type II water streams.

Village

The Project anticipates that village accommodation for 600 persons will be required during the operational phase with a peak of 900 persons during the construction phase.

A generic village design with 600 rooms and associated infrastructure was completed as part of the DFS phase and a Request for Tender ("RFT") process completed during the first half of 2023. The tender process is currently assessing the technical and commercial clarifications. The scope of works for the village incorporated the general and specific terms of work to be performed in relation to the design, documentation, procurement, transport, installation, and commissioning of a fully functional and complete 600 person turnkey village.

The village will be designed in accordance with the requirements of the latest edition of the relevant Australian Standards, the National Construction Code of Australia ("NCC") formerly the Building Code of Australia and intends to meet modern industry standards and workforce expectations.

It is De Grey's intent that the village is designed and constructed to a high standard so as to be visually appealing with high amenity so as to attract and retain a diverse workforce with minimum turnover during the mine life.

Airstrip

Aerodrome Management Services ("AMS") was engaged to complete a DFS level assessment for an airstrip to service the Project and to report on those findings.

The proposed airstrip will be constructed approximately 1 km to the north of the village. The airstrip will be constructed and classified as a Code 3C non precision approach runway with a 30 m width and a nominal length of 2,100 m along a 10/28 orientation and will be designed to facilitate the take-off and landing of Code 3C jet aircraft (typical - Fokker F100, BAe146 and Embraer E190).

Pavement designs and surfacing characteristics have been incorporated within the airstrip to accommodate the landing and take-off of larger Code 4C aircraft suitable to carry approximately 150 passengers.

The airstrip will provide for the transport of personnel to and from site in accordance with their allocated roster. In addition to this, the airstrip will allow for 24 hr access by the Royal Flying Doctor Service ("RFDS") should emergency medical assistance be required either at the Project or within the vicinity of the Project.

Access Roads

Access to the Project will be via an existing turnoff approximately 11 km from the proposed administration office. An existing turn including turn out lanes exists on the Great Northern Highway, from where it services the Mt Dove site.

A new 10 km bituminised main access road would be connected from the proposed administration office to the existing highway access road, approximately 1 km from the Great Northern Highway turnoff. A new 2 km bituminised access road would also be constructed to connect the main access road to the accommodation village and the airstrip.

Communications

De Grey personnel completed a design for the Project's communications and information technology ("IT") requirements. It will see the existing communications network upgraded so as to facilitate the necessary communications systems required for the construction and operations phases of the Project.

Critical communications for site will combine multiple services and vendors to ensure there are redundant paths for continuous communication. A combination of fibre, microwave, long term evolution (4G) and satellite services will ensure coverage for production, administrative and accommodation areas.

Site wide communications coverage includes the processing plant, village, airstrip, mining infrastructure area and associated infrastructure. Access to corporate systems will be provided within a secure framework, which includes WIFI, access control and CCTV systems.

Critical locations will be connected directly by fibre. Secondary locations will be connected via licenced microwave links. Area networks will be connected via structured cabling and machine controls within the network build specifications and dispersed areas (bore fields) will be connected via radio.

1.11 Environment

RPM Advisory Services ("RPM") was engaged to complete a DFS level environmental assessment for the Hemi Gold Project and to report on those findings.

RPM reviewed available data on the environmental, heritage and social aspects of the Project in conjunction with relevant State and Federal legislation to form an opinion on the key environmental considerations affecting the Project and the likely regulatory application process that will be required to gain approval for the Project.

In addition to RPM, a number of additional specialist sub-consultants were engaged to complete DFS level assessments in their particular area of expertise. These included:

▪ Umwelt	Flora and Vegetation; Socio Economic Impact Assessment;
▪ Western Wildlife	Fauna and Habitat;
▪ Bennelongia	Subterranean Fauna; Short Range Endemics;
▪ MBS Environmental	Ecological Risk Assessment;
▪ Environmental Technologies	Air Quality;
▪ Herring Storer	Noise and Vibration;
▪ Stantec	Aquatic Fauna;
▪ Geowater	Hydrogeology;
▪ Surface Water Solutions	Hydrology;
▪ SRK Consulting	Materials Characterisation;
▪ Energetics	Energy Efficiency & Carbon Emissions;
▪ MineEarth	Soils and Landforms;
▪ Scarp Archaeology	Heritage.

Key Environmental Considerations

The key environmental considerations identified by RPM that may require implementation of management plans and / or additional investigation to reduce the potential impacts and support approval applications are shown below.

It is noted that whilst social and heritage aspects were considered by RPM, these aspects were reviewed and assessed separately by De Grey and its consulting team and are therefore not discussed.

Terrestrial Fauna

Several conservation significant fauna species listed under State and Commonwealth legislation have been recorded or are considered likely to occur in the Project area including Northern Quoll, Greater Bilby, Pilbara Olive Python, Ghost Bat, Pilbara Leaf-nosed Bat and Grey Falcon.

A Fauna Management Plan for these listed species has been developed to support the referral to DCCEEW under the EPBC Act and to the EPA under Part IV of the EP Act.

Survey results indicate that no short-range endemic (“SRE”) species are found within the Project area as all species identified during surveys occur in habitats that extend beyond the boundaries of the Project.

Inland Waters

With the groundwater level ranging from 5 m to 10 m, the Project will require mine dewatering to enable safe access for mining. In the first two years of mine dewatering, prior to the commencement of processing, modelled abstraction rates of 30 Gl/annum are predicted.

Approximately 50 % of the groundwater will be reinjected back into the aquifer upstream and downstream of the Project with controlled release of the surplus to the Turner River. Third party offtake options for excess water are also being investigated.

To ensure that shallow rooting vegetation is not impacted by mounding, the reinjection borefield has been modelled and designed to ensure that the water table remains deeper than 2 m below ground level.

Two types of natural groundwater exist in the model area:

- Type I – this water is suitable for aquifer reinjection, discharge to the Turner River and with reverse osmosis treatment, potable water supply. This water quality meets ANZECC 2018 guideline values for freshwater aquatic ecosystem protection to LOSP 95 criteria (eg 0.024 mg/L for soluble arsenic (III));
- Type II – this water has naturally elevated levels of certain metals, for example, As, Cr, U and V, and is suitable for reinjection where the bore location recirculates to the Hemi deposits during the operational phase of mining and processing.

De Grey has engaged MBS Environmental to perform a series of assessments to inform the proposed groundwater quality management system and discharge criteria.

The water quality of all dewatering bores will be monitored to ensure that groundwater quality management is accomplished. The groundwater quality model will assign Type I and Type II water to each dewatering bore. The Type I water will be directed to reinjection bores or controlled release to the Turner River, whilst the Type II water will be directed to the processing plant after the first two years of dewatering, or reinjection bores that recirculate to the mine dewatering system during the first two years of mine dewatering. In addition to this, it is De Grey's intention to exhaust all reinjection and reuse opportunities before there is any controlled release of surplus groundwater to the Turner River.

Mine dewatering and release will need to be supported by a management plan and monitoring program. Water management has been assessed in the referral under Part IV of the EP Act.

Greenhouse Gas Emissions

The Project is predicted to generate in excess of 100,000 tonnes of CO_2 equivalent (tCO_2-e) per annum which triggers the requirement for assessment of Greenhouse Gas emissions and associated reduction strategies under State legislation.

Predictions of the Projects Scope 1 and Scope 2 emissions have been completed based on mine vehicle fleet numbers, direct processing emissions from carbonate within the ore and power supply demands. Based on these predictions, a decarbonisation strategy has been prepared, demonstrating how the use of renewable energy and transition to electric powered vehicles will reduce Scope 1 and Scope 2 emissions and set a trajectory to net zero.

The predictions and decarbonisation strategy for Scope 1 and Scope 2 emissions has been included in a GHG Management Plan developed to support referral to the EPA under Part IV of the EP Act. The GHG Management Plan outlines five yearly aggregated Scope 1 GHG emission limits, as determined from the decarbonisation strategy. In the event that limits are exceeded, De Grey may need to purchase proposed Safeguard Mechanism Credits or Australian Carbon Credit Units.

Mine Closure

De Grey has considered mine closure in the Project design and a conceptual Mine Closure Plan has been prepared. This is supported by waste rock, tailings and soil characterisation to support initial landform designs. The Project contains a lesser proportion of high stability rock suitable for placement on landform surfaces. This high stability rock is to be prioritised for placement on final landforms whilst the low stability rock is encapsulated within the WRE's.

Detailed hydrogeological and geochemical studies are ongoing to scientifically characterise the pit lakes and any impacts they may present. Preliminary modelling indicates that the post closure groundwater drawdown depression will not adversely affect the Yule River, or its permanent pools.

Approximate mine closure costs have been estimated using the WA Mining Rehabilitation Fund Act 2012 (MRF Act) categories and rates. A detailed closure cost model will be developed to refine the liability estimate.

1.12 Social & Community

Umwelt Environmental Consultants ("Umwelt") was engaged to complete a DFS level Social Impact Assessment ("SIA") for the Hemi Gold Project and to report on those findings. The Umwelt SIA also integrates the findings of the Circle Advisory SIA (2022), which was specific to the Kariyarra People.

The Pilbara region covers an area of approximately 506,000 km², representing 19.7 % of WA's total land mass. Although a sizeable land area, the population is relatively small, comprising scattered towns and remote communities. The region is known for its hot climate, natural landscape, cultural heritage values, and mineral deposits.

The Pilbara consists of four local government authorities: the Town of Port Hedland, the City of Karratha, the Shires of Ashburton, and East Pilbara. The main population centres of the Pilbara are Port Hedland, Karratha, and Newman.

The SAI concluded that identified negative social impacts of the Project can be reasonably mitigated or managed to reduce their significance with positive impacts increasing in significance if appropriate enhancement measures are put in place.

Traditional Owners

The Project is located on Kariyarra country, the traditional owners of the land and within the Native Title Determination ("NTD") area of the Kariyarra Aboriginal Corporation ("KAC").

The Kariyarra native title claim (WAD 6169 of 1998) was lodged with the National Native Title Tribunal in 1988 for the traditional lands of the Kariyarra people. In 2009, the Kariyarra (Pippingarra) native title claim (WAD 232 of 2009) was lodged. Lastly, in 2014 the Kariyarra people lodged the Kariyarra (Abydos) native title claim (WAD 47 of 2014). Together, these native title claims are known as the Kariyarra Claims. The Kariyarra Claims were determined on 13 December 2018. The Kariyarra Determination Area covers about 17,354 square kilometres.

On 15 December 2022, KAC and De Grey signed a Native Title Agreement that will promote a mutually respectful and beneficial relationship during the development and operational phases of Hemi and into the future.

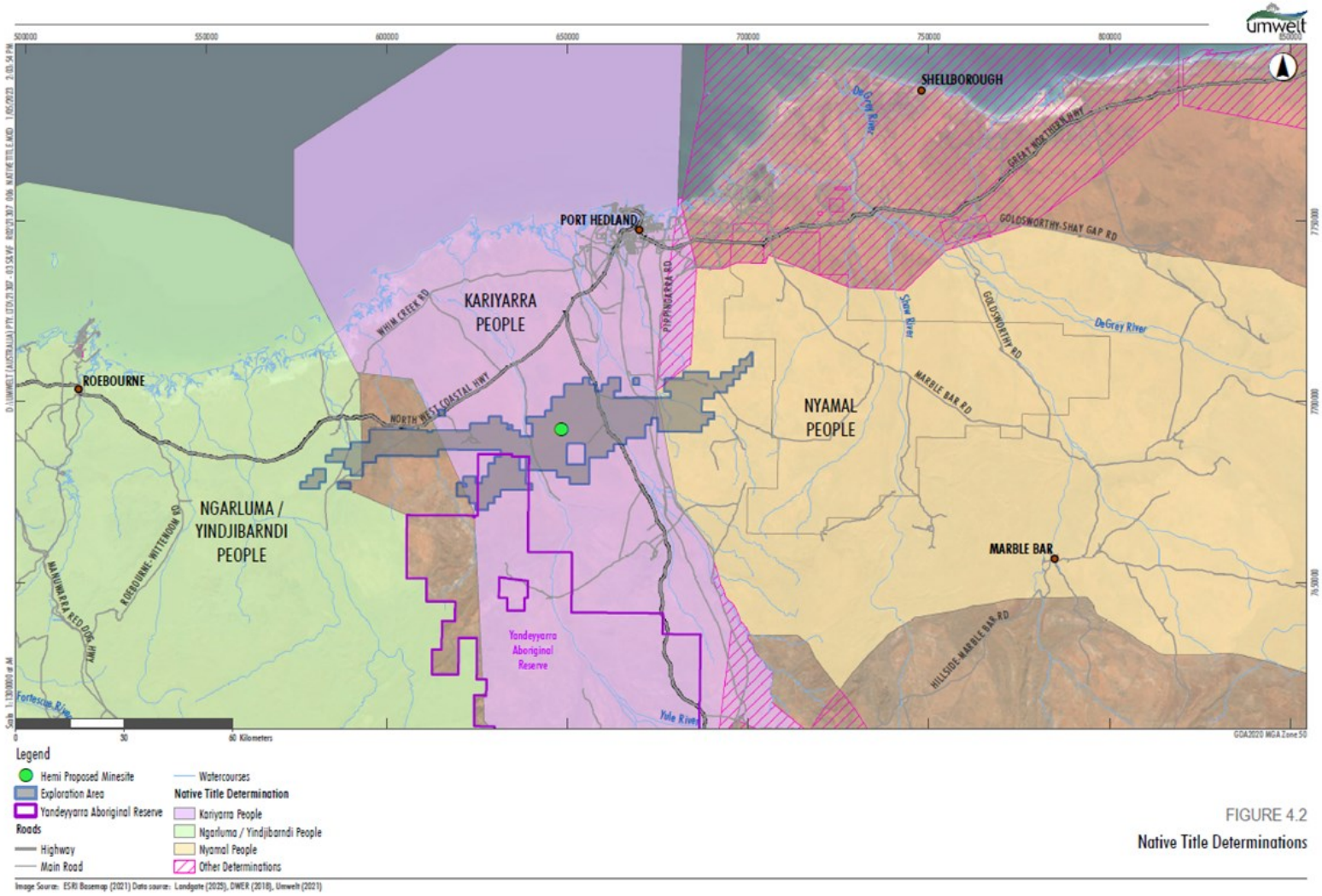
In addition to the above, the broader Pilbara Gold Province also transverses the NTDs of the Ngarluma / Yindjibarndi Aboriginal Corporation ("YAC") and the Nyamal Aboriginal Corporation ("NAC"). A Native Title Agreement is currently being negotiated with YAC, whose Native Title determination encompasses the Toweranna deposit.

Figure 1-31 shows the Native Title determination areas in relation to Port Hedland and the Project.

Political Capital

Political capital refers to the individuals, institutions, and systems that contribute to a community's ability to maintain and uphold a governance structure.

Figure 1-31: Native Title Determination Areas



The Project is located within the Australian electoral division of Durack and the Western Australian electoral district of Pilbara. At the local government level, the broader Pilbara region is represented by the Town of Port Hedland, Shire of East Pilbara, and the City of Karratha.

Port Hedland gained town status in 1989. The Council offices are located in Port Hedland and the Council is represented by the Mayor and 7 Councillors. The Town of Port Hedland states its vision as '*To be Australia's leading Port town embracing community, culture and environment*'.

Strategic regional development and planning across the Pilbara region is supported by the constituent Local Government Authorities ("LGA") and the Western Australian Government through the Pilbara Development Commission ("PDC"). The PDC states its vision for the region as '*Vibrant and sustainable communities underpinned by a strong, diverse economy*'.

Natural Capital

Natural capital refers to natural assets and resources that contribute to community strength and sustainability.

The Pilbara is a vast, diverse region, representing approximately 20 % of WA's land mass, with diverse regions of mountain ranges, spectacular gorges, deserts, plains, a stunning coastline, and numerous offshore islands. It has been at the centre of the most rapid expansion of iron ore production in history and the site of construction of some of the largest gas projects in the world. The economic activity associated with these projects has driven a substantial increase in the importance of the Pilbara to both the Western Australian and Australian economies. Other key mineral resources within the region include salt, manganese ore, nickel, uranium, chromite ore, copper and gold. In addition to mineral resources, approximately 30 % of the broader Pilbara region is covered by pastoral leases.

The Project is located on Indee Station, although De Grey's leases extend across five pastoral leases; Indee Station, Mallina Station, Sherlock Station, Wallareenya Station and Mundabullangana Station.

Two ephemeral rivers; the Yule River and Turner River both of which discharge into the Indian Ocean to the west of Port Hedland are located to the south west and north east of the Project respectively. Groundwater is sourced from the Yule River Water Reserve, the borefield of which is approximately 32 km north west of Hemi.

Human Capital

The status of a community's human capital is assessed by considering population size, age distribution, education and skills, general population health and the prevalence of at-risk groups within the community.

The 2021 Census shows that the Town of Port Hedland LGA population is 15,684, and:

- 17 % are of Aboriginal and / or Torres Strait Islander descent;
- 52 % are male and 48 % are female;
- 32 years old is the median age;
- 21 % were born overseas;
- 41 % completed Year 12 or equivalent;
- 44 % completed a post-secondary education equivalent; and
- 6 % hold a Bachelor's Degree.

Port Hedland has historically experienced non-linear trends in population size associated with the 'boom and bust' cycles of the resources industry. In particular, strong population growth was recorded for Port Hedland and the Pilbara Region during the 2011 to 2016 period, and subsequently slowing in the 2016 to 2021 period.

Cultural Capital

Cultural capital refers to underlying factors that provide human societies with the means and adaptions to maintain themselves in their environment. It includes the way people know and understand their place within the world. It may also refer to the extent to which the local culture, traditions, or language, may promote or hinder wellbeing, social inclusion, and development.

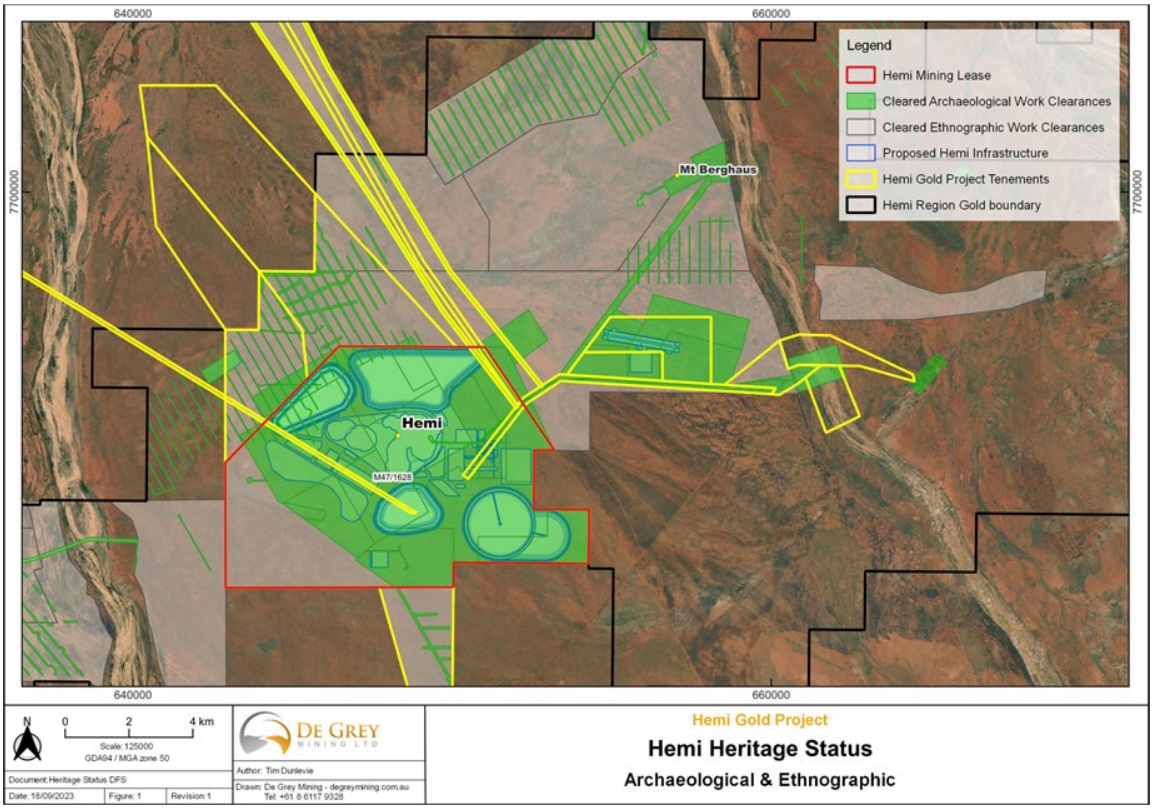
The proportion of households within the Town of Port Hedland that spoke English only at home was 75.5 %. The next top five languages spoken were Thai (0.7 %), Tagalog (0.7 %), Mandarin (0.6 %), Shona (0.6 %), and German (0.5 %).

The top ancestries recorded within the Town of Port Hedland were Australian (31.3 %), English (32.9 %), Irish (10.9 %), Scottish (9 %), and Australian Aboriginal (6.8 %). Additionally, 34 % of the LGA's population recorded a place of birth outside of Australia.

Circle Advisory's research and engagement outcomes revealed that the Kariyarra people have a deep connection to the land and the sea of the coastal north Pilbara region.

Numerous heritage surveys have been undertaken and led by De Grey in collaboration with respective Traditional Owners across the Project area. During the Project's exploration program, De Grey undertook a comprehensive review of existing heritage surveys to identify and subsequently avoid damaging sites of significant historic or cultural value. Figure 1-32 shows the archaeological and ethnographical heritage survey area for the Project.

Figure 1-32: Archaeological and Ethnographical Heritage Survey Area



Social Capital

Social capital includes indicators such as the level of volunteering, population mobility, crime rates and the demographic composition of the community. The influx of visitors to an area and the extent of a transient workforce population can also contribute to varying levels of social capital and resilience within a community.

Population mobility was relatively high with 56 % living at a different address five years ago and 37 % living at a different address one year ago. Covid-19 is thought to have impacted population mobility between 2021 and 2022 due to state and international border closures.

With respect to family composition, approximately 36 % of households are couple families with children, 24 % are families without children and 12 % are one parent families with children. Justice and crime has received a strong focus with a range of preventative measures put in place in recent times.

Economic Capital

Economic capital includes indicators such as industry and employment, workforce participation and unemployment, income levels and cost of living pressures, such as weekly rent or mortgage repayments.

Mining employs 26 % of the population in the Port Hedland LGA and 33 % of the population in the Pilbara region. The median household income in the Port Hedland LGA is 57 % higher than the State average.

Port Hedland's Indigenous population had substantially higher levels of unemployment when compared to unemployment among the non-indigenous population. This disparity between indigenous and non-indigenous populations is consistent with trends at a State level. However, it is important to note that Indigenous unemployment levels within the region were lower than the State average.

The Project's aim is to employ locally where possible, which would create pathways for existing students (both Indigenous and non-indigenous).

The SIA reports that there are several successful case studies of industry led partnership programs from which to draw from that include:

- Training and Employment Programs;
- Engagement of Aboriginal and Torres Strait Islander businesses;
- Community Partnerships; and
- Industry Collaboration.

Physical Capital

Physical or built capital includes the provision of infrastructure and services to the community. Within this capital area, the type and quality of built community infrastructure (including amenities, services and utilities), housing and accommodation and degree of access to the public are all important.

There are approximately 4,900 occupied dwellings in the Port Hedland LGA, 67 % of which are rented. There are a range of services and facilities available within the Port Hedland LGA and there has been significant investment in physical infrastructure and services over recent years with plans continuing. The Town of Port Hedland has committed up to $444 M in upgrades to buildings and infrastructure over the next 15 years, with $269 M in new capital works.

There are three major hospital facilities in the Pilbara region, located in Newman, South Hedland, and Karratha. These support smaller regional hospitals in Onslow, Paraburdoo, Roebourne, and Tom Price.

The Hedland Health Campus is located in South Hedland and is the health care hub for the Pilbara region, providing Pilbara residents with access to specialists in one location. It is a public facility that houses a 24-hour emergency department, an operating suite with two operating theatres, in-patient beds, medical imaging x-ray services, pathology, and in-patient pharmacy services.

The Hedland Health Campus also provides a range of health services, including a domiciliary care unit, geriatric assessment unit, maintenance renal dialysis unit, obstetric and paediatric services, aged care services, mental health services, drug and alcohol services, outpatient, and allied health services such as child health, physiotherapy, occupational therapy and speech pathology, visiting specialist services and a nursing home care unit.

The Pilbara Region is home to significant road, rail, and port infrastructure. The region's roads consist of 1,087 km of sealed and 6,439 km of unsealed or gravel roads. Within the Town of Port Hedland LGA more specifically, the LGA has approximately 575 km of road, of which 71 % are reported as unsealed.

The Port Hedland International Airport is a primary air transport node, with capacity for more than 430,000 passengers each year, supporting the mobilisation of FIFO workforces and vital connectivity for the people of the Pilbara, for leisure, business, health and well-being. Prior to Covid-19, it also offered direct weekly flights to Brisbane and Bali.

The port, together with the residential areas of Port Hedland, Spinifex Hill, Cooke Point and Pretty Pool is located on an island approximately 12 km long and 1.5 km wide. It is linked to the mainland by a two lane causeway which connects with South Hedland, approximately 18 km inland.

The port continues to predominantly serve the mining industry of the Pilbara, exporting in excess of 530 Mt of products, predominantly iron ore in addition to salt, manganese, copper concentrates, livestock and spodumene (lithium concentrate).

Social Impact Management Planning

Community engagement as part of the SIA indicated that preferred management strategies relate to:

- Maximising local employment and procurement opportunities for both the Aboriginal population and general community;
- Maximising the Project's contribution to community participation, contribution, and cohesion;
- Minimising impacts on service capacity and delivery ensuring continued stakeholder engagement and collaboration; and
- Tailoring and targeting community investment to address key community needs.

SIA Conclusions and Recommendations

The assessment concluded that identified negative social impacts of the Project can be reasonably mitigated or managed to reduce their significance, with positive impacts increasing in significance if appropriate enhancement measures are put in place.

Several of the social impacts identified may be cumulative in nature and may rely on collaboration and coordination with other industries, local and state government, community groups and service providers.

The SIA recommended the preparation and implementation of a social impact management planning framework for the Project that includes the following key components:

- A Stakeholder Engagement Strategy including a dedicated Aboriginal Engagement Plan;
- A Social Investment Program, including an Aboriginal Partnership Plan;
- Workforce Accommodation Plan; and
- An Employment and Procurement Strategy, which should contain discreet plans for Aboriginal participation and local participation.

1.13 Project Approvals

A referral to the Federal Government under the EPBC Act was submitted to DCCEEW on 15 May 2023 due to the presence of Matters of National Environmental Significance ("MNES"). A fauna management plan was provided to DCCEEW as part of the referral documentation to enable DCCEEW to make a possible determination of 'Controlled Action' with assessment based on preliminary documentation. Once the application has been validated and published for public comment, DCCEEW will provide De Grey with a determination.

A referral to the Western Australian Government under Section 38 of the EP Act was submitted to the EPA on 8 June 2023, where it is considered likely to be assessed. De Grey has strategically completed a substantial amount of environmental and social impact assessment work prior to submitting the referral with the aim to achieve an assessment of Assessment on Referral Information ("ARI").

There are various levels of assessment with respect to an ARI. They are:

- Assessment of referral information;
- Assessment of referral information, with the provision of additional information as requested by the EPA;
- Assessment of referral information, with or without additional information, with public review.

The latter two options are considered achievable pathways with the decision being at the discretion of the EPA. Assuming the Project is determined as ARI and the provision of additional information is accepted, an indicative timeframe for assessment and grant of Project approvals (including secondary approvals) is approximately 15 to 18 months.

1.14 Project Execution

A project execution strategy has been developed for the Project that focuses on advancement of engineering, preparation of tender documentation and ordering of long lead items, advancement of the contracting strategy, and execution of approved preliminary works to position the project ahead of the scheduled regulatory approvals.

The project execution plan would provide certainty of implementation strategy so that the Project is delivered to schedule and budget, and that the ramp-up to full production is achieved in an efficient and productive timeframe. The Project execution plan will also dictate the contracting options and methodologies for scoping, costing, scheduling and executing each capital works package.

Numerous contracting options are available for the different construction areas of the Project which have been identified and each will be evaluated as part of the project execution planning phase.

The completion of the DFS allows for the engineering scope to advance to the detailed engineering phase. This in turn then allows for contracts to be well defined and negotiated with qualified contractors and under circumstances where costs and schedule can be controlled.

For the purposes of the DFS, the Project has been developed on the basis of a conventional EPCM "stick built" approach to execution. This has been applied to facilitate the advancement of the engineering, the layout of the process plant, and for the estimation of the process plant and non process infrastructure capital cost.

The Project will be broken down into distinct areas with different contracting strategies applied to the respective construction areas, namely; village accommodation, airstrip, mine dewatering, surface water infrastructure, mine services area, processing plant, TSF and general site buildings and infrastructure.

To achieve this, De Grey has already commenced building a competent project team that is able to oversee and execute this scale of project in all areas including procurement, contracting, engineering, process design, autoclave technology, project execution, construction works and operational readiness.

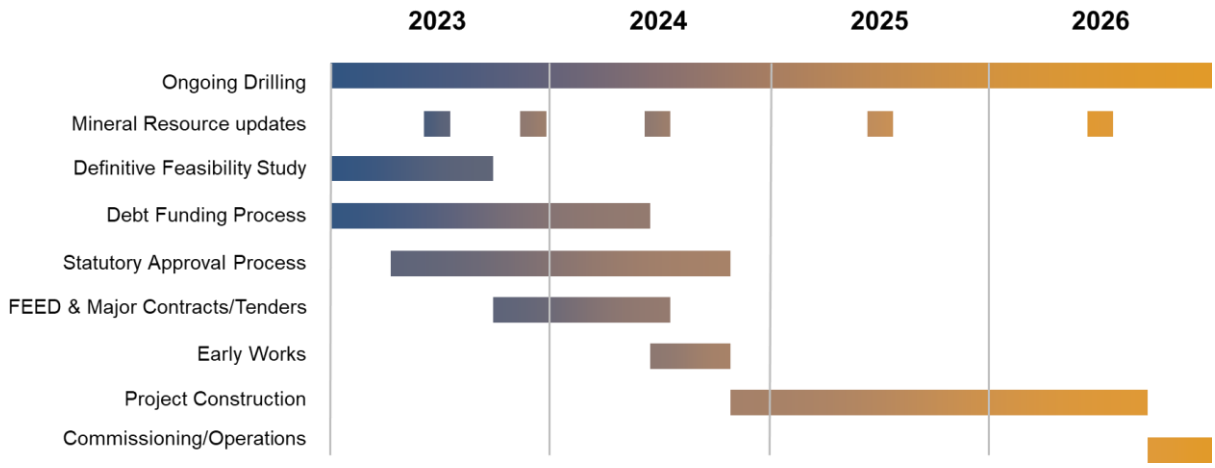
Table 1.9 provides a summary of the key areas of the Project and the DFS recommended contracting strategies subject to further review as part of the advancement of the Project Execution Plan ("PEP") and further development of the detailed engineering.

Table 1.9: Proposed Project Implementation Strategies

	Project Area	Project Implementation Strategy	Comments
Initial Works	Village	Hybrid EPCM	De Grey responsible for topsoiling, preliminary earthworks and services to battery limit. Village contractor delivers village under EPC.
	Airport	Hybrid EPCM	De Grey responsible for topsoiling, preliminary earthworks and services to battery limit. Airstrip contractor delivers airstrip and bituminising under EPC. Contractor/s deliver buildings, refuelling under EPC.
	Mine Dewatering	EPCM	De Grey responsible for water bore construction, bore pump and piping procurement and leasing / purchase of generators. Contractor installs pumps and piping arrangement under schedule of rates.
	Site Administration Units	Hybrid EPCM	De Grey responsible for topsoiling, preliminary earthworks and services to battery limit. Buildings contractor delivers buildings under EPC
	Mining Area Buildings, Workshops, Washdown and Fuelling	Hybrid EPCM	De Grey responsible for topsoiling, preliminary earthworks and services to battery limit. Contractor/s delivers buildings, workshops, fuelling under EPC.
	Power Supply	Hybrid EPCM	De Grey responsible for tendering construction works of overhead power lines (if required) and substation. Electrical engineering consultant (reporting to De Grey) to oversee entire process.
Main Works	Process Plant	EPC or equivalent	To be defined as part of processing plant tender process.
	Oxygen Plant	Build, Own, Operate ("BOO")	To be defined as part of the oxygen plant tender process (potentially in parallel with process plant tender process).
	Access Roads	Hybrid EPCM	De Grey responsible for topsoiling and preliminary earthworks. Civils contractor delivers road and bituminising under EPC. Design to account for surface water and infrastructure modelling.
	TSF	EPCM	De Grey responsible for supervising the mining / civil contractor and QA/QC protocols, including identification and selection of areas within pit with suitable clay materials. TSF engineering consultant to oversee TSF construction standards.

The key activities in the short to medium term are to advance the engineering, procure long lead items, conduct preliminary works subject to approval, including the establishment of production and monitoring bores, establishment of site works for laydown areas, village construction, preparation of tender documentation for major works and for Statutory approvals, and preparation for full project implementation. Figure 1-33 shows the high level project schedule milestones.

Figure 1-33: Key Project Schedule Milestones



1.15 Operational Management

De Grey will continue to work closely with government, industry, education providers and community to promote and develop professional and skilled labour capability requirements for the Project.

De Grey will implement a multi-faceted program to ensure that the required personnel are available for each development phase of the Project through:

- Promotion of opportunities and operational requirements to government, industry and the community;
- Identifying positions and capabilities required for each operational area of the Project as early as possible to ensure training programs are both available and achievable, so as to develop a suitably skilled workforce for the commencement of operations;
- Detailing the workforce requirements, including role type and number for each of the operational areas,

This approach will benefit the company in gaining and retaining knowledge and skills required for the Project and will provide a pathway for continuation of employment through further training and development.

De Grey will establish a long term employment focus through the creation of a scalable permanent workforce for operations.

A comprehensive People and Organisational Strategy and Workforce Plan ("POSWP") has already been developed as part of the DFS and will continue to be built on as part of the operation readiness phase. The ongoing development and optimisation of POSWP will be the responsibility of the People and Capability leadership team.

A sub-element of POSWP will be the Employee Relations ("ER") strategy which is focused on managing our future and furthering ongoing relationships. POSWP will plan for the different stages

of the Project and then apply the appropriate employment model within our headcount planning scenarios.

The comprehensive headcount plan will continue to be refined as part of the operational readiness phase and will be revised annually and included in the operational budget with review mechanisms built in to ensure that forecast updates take place at appropriate intervals.

Fundamental to the success of the Project will be recruitment, hence by using projected headcount plans and employment models throughout the various development and operational phases of the Project, the dedicated recruitment team can ensure that planned, effective recruitment practices utilise developed processes that are equipped with suitable systems designed for the purpose.

De Grey is also committed to ensuring that local and national employment represent the commodities on which the Project is based. This includes culture, inclusion and diversity.

With respect to pressure oxidation, specialist positions exist and will need to be resourced. De Grey recognises that the skills, capability experience required to manage and operate a large scale gold mine with pressure oxidation are specialised. Due to a lesser number of pressure oxidation circuits operating in Western Australia, De Grey will need to:

- Recruit targeted employees that have experience in the operation and maintenance of pressure oxidation circuits;
- Provide competitive remuneration for key positions.

From a long term sustainability perspective, the Project will establish a succession plan for specialist positions that involves the development of the internal personnel so that they can transition into those key roles. Appropriate policy design and performance management will be part of this.

Operational Readiness

The primary goal of operational readiness is to broaden the focus from delivering a project based on time and cost to delivering a project that will meet the specified operational and project performance objectives in a sustainable manner. Operational Readiness is aimed at identifying and resolving potential operational issues through the engineering and construction phase to Project handover. It ensures that appropriate operational procedures and systems are put in place to achieve and sustain the Project objectives.

Operational readiness also assists in accelerating start-up activities by bridging the transition between Project completion and ongoing operations and ensures that operations continue to perform in a sustainable manner.

A formalised approach to operational readiness will be put in pace to ensure that operations and maintenance personnel have appropriate levels of ownership in terms of design and engineering during all phases of the Project. Wherever practicable, De Grey operational personnel will have input into the evaluation and selection of a preferred option. This includes the whole-of-life costs for each preferred option including the assets reliability, operability and maintainability.

A comprehensive plan for the development, upgrade and integration of the business systems will be developed as part of the operational readiness activities and will include as a minimum:

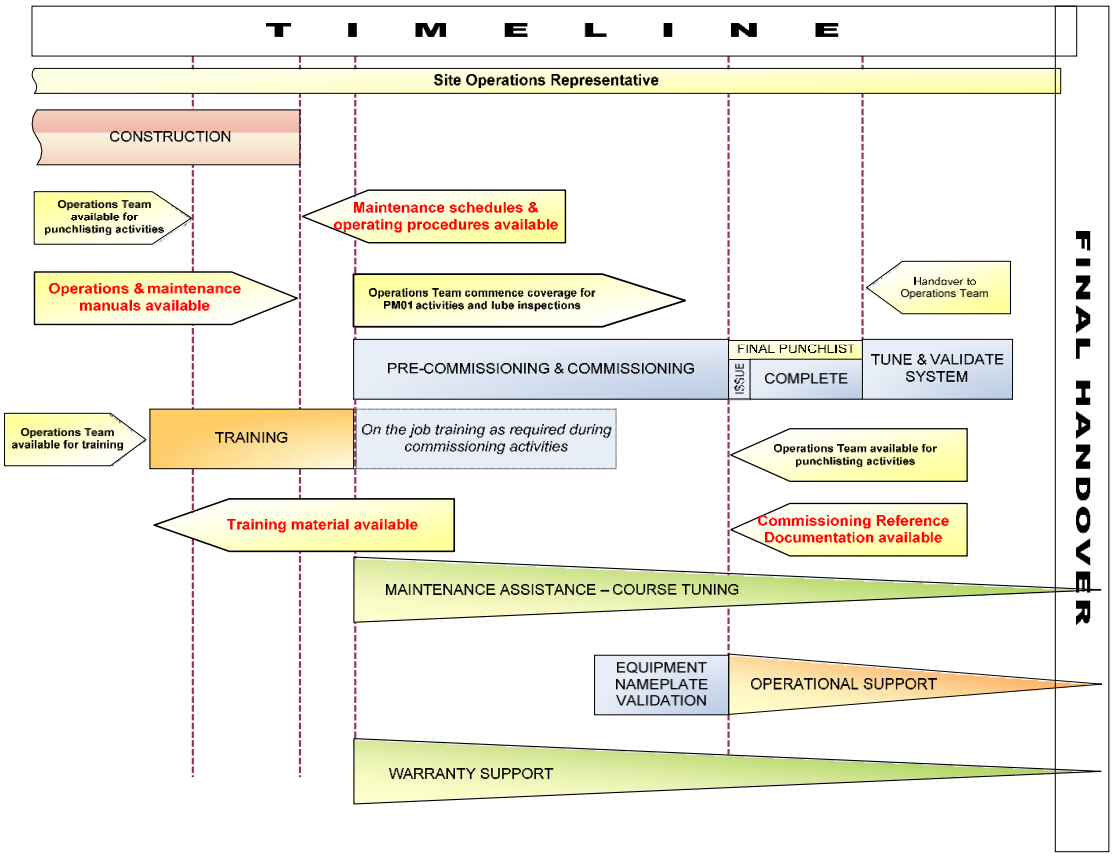
- Business systems;
- Safety systems;
- Maintenance systems;

- Geological and geometallurgical modelling;
- Grade control;
- Production, process and maintenance KPI reporting;
- Laboratory data reporting systems - LIMS (Laboratory Information Management System);
- Archiving of process data;
- Downtime reporting;
- Power monitoring and reporting;
- Site Distributed Control System ("DCS");
- Financial reporting.

De Grey proposes to undertake design reviews at identified points in the design process, nominally at 30 %, 50 % and 85 % with the operability, maintainability, and constructability aspects of the design to be reviewed in detail. These design review would include operations and project personnel and any identified changes would follow the Project change management process. Where identified changes are not able to be implemented, then those reasons would be articulated to the relevant parties in a timely manner. Those identified changes that are implemented would be formally recorded with feedback provided at each design review.

Figure 1-34 shows a document delivery timeline that outlines the activities from construction through commissioning through to final handover.

Figure 1-34: Document Delivery Timeline



Commissioning

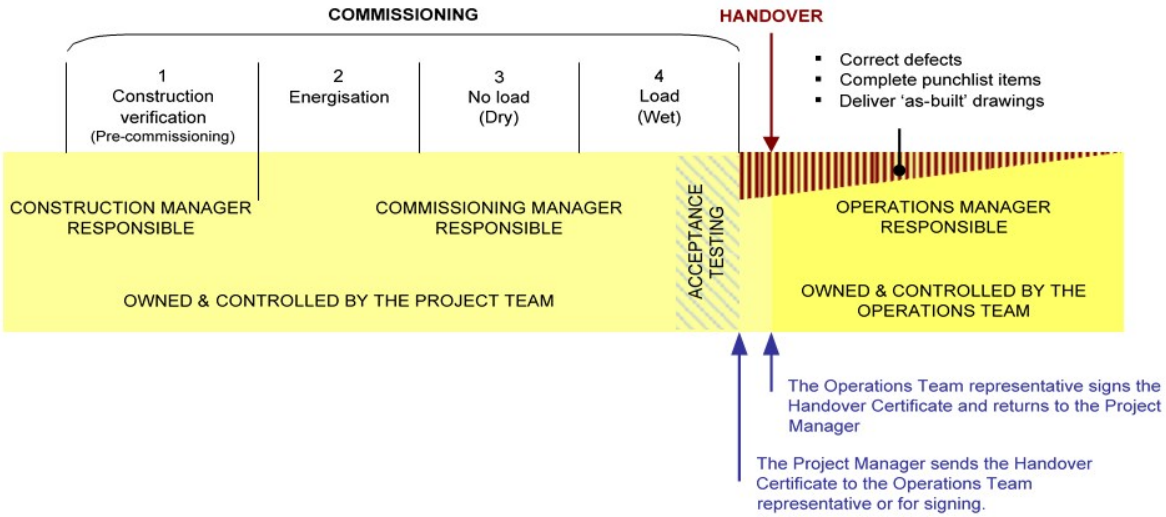
Commissioning includes verifying the safety, structural, mechanical, electrical, instrumentation, and process control integrity of the new assets and production systems under load. The assets are commissioned individually and then as part of a production system, to confirm the safe performance of new assets at, or better than, the intended performance validation criteria. Performance criteria will include throughput, operating hours, product grade, operating costs, and manpower levels.

The commissioning process will be conducted according to a structured process to demonstrate step-by- step, the capability of the new assets.

During ramp-up the new assets and production systems will be tested to full design capacity. This is the period when validation of the new assets and production systems occurs. When all required parameters have been achieved, the Project is ready to be handed over.

Figure 1-35 shows a breakdown of the commissioning phases that lead up to handover.

Figure 1-35: Commissioning Phases



1.16 Capital Cost Estimate

The Project Capital Cost Estimate ("CCE") has been developed based on a projected 10 Mtpa processing plant consisting of:

- Comminution circuit: comprising three stage crushing utilising HPGR followed by ball milling, gravity, flotation
- Oxidation circuit: comprising POx treatment of flotation concentrate
- Neutralisation circuit: comprising, POx product and flotation tailing thickening, CCD thickening
- Leaching circuit: comprising conventional carbon in leach, elution, and gold goom to produce gold doré and
- Associated infrastructure including tailings storage facility, water supply borefield, power supply, village, airstrip, sealed access road and other supporting infrastructure including offices, laboratory, communications systems and workshops.

Following from the Scoping Study (October 2021), a comprehensive set of trade-off studies were conducted by process engineer Wood and De Grey, including extensive metallurgical testwork and financial evaluation, to establish the optimal process plant flowsheet for the PFS (September 2022).

The process flowsheet selected is capable of treating both free milling and refractory sulphide gold bearing ores and has demonstrated advantages relative to other processing technologies including higher gold recoveries, lower energy consumption, lower reagent consumption, lower greenhouse gas emissions, and lower relative capital and operating costs.

Process development work over the DFS has validated and further optimised the PFS design and incorporated space and structural provisions to increase the throughput to 15 Mtpa at a future date. The DFS process flowsheet incorporates a comminution circuit comprising three stage crushing utilising HPGR followed by conventional ball milling and an oxidation circuit comprising pressure oxidation, together with the key assumptions outlined within the process design criteria, based on a production capacity of 10Mtpa treating 100 % Brolga fresh ore at a grind size of 75 µm, and form the basis of this CCE.

The CCE was principally compiled by Wood and is based on an EPCM approach and execution methodology for the processing plant, process plant infrastructure and other related non-process infrastructure.

The Capex was developed to a DFS standard Class 3 as defined by the Association for the Advancement of Cost Engineers International ("AACEI") in document 18R-97, Cost Estimate Classification System.

All costs are expressed in Australian Dollars (A$) as of May 2023 and are expected to have an accuracy of -15 % +15 %. The estimate is judged to have a level of engineering of approximately 15 % and is considered to be at a DFS level in accordance with Wood's Estimating Procedures.

The CCE covers all the costs associated with the construction and associated expenditure to develop the Project to a production capacity of 10 Mtpa to produce over 500,000 ounces of gold doré annually. The estimate includes all costs associated with engineering, drafting, procurement, construction, construction management, freight, commissioning, first fills of plant reagents, consumables and spares, Owner's costs and project management.

The estimate is based on an initial level of engineering, material take-offs ("MTO"), and budget price quotations for major equipment and bulk commodities. Preliminary global quantities for earthworks, concrete, steelwork, and platework have been determined from in-house data for similar installations, equipment lists, engineer's calculations, preliminary layout drawings and vendor data. Technical and commercial evaluations of the major equipment packages were conducted based on their ability to meet the technical requirements and price competitiveness.

The CCE excludes the capital cost of an oxygen plant for the pressure oxidation circuit. This plant is proposed to be built and operated by others under an oxygen supply arrangement with De Grey. The supply of oxygen is included in the operating cost estimate.

The CCE includes capital costs for a construction camp upgrade and expansion, a new on-site permanent village for construction and operations and an airstrip capable of accommodating 100 plus seat jet aircraft. The construction camp upgrade and expansion will allow the enabling and early works for the Project to commence immediately upon receipt of environmental approvals and helps to shorten the overall construction schedule. The permanent site village will operate on a fly-in, fly-out basis and a drive-in and drive-out basis for employees based in the Pilbara. The Company will assess the potential to assist employees who wish to live within communities in the Pilbara and work at the Project.

Unit rates for bulk materials have been developed from Wood's in-house data and rates supplied by contractors and suppliers familiar with costs applicable to resource project developments in the Pilbara and other remote regions of WA. Construction labour rates, productivity factors and total estimated installation hours have been developed from Wood's inhouse data and validated by contractor's requests for pricing for Pilbara based construction projects.

The CCE is presented in second quarter of calendar year 2023 Australian dollars (A$ or $). No allowance has been made for escalation between the estimate base date and the time at which commitments will be incurred, and payments made.

A design growth allowance of 6.3 % has been included within the Wood process plant direct cost areas and a further 5 % growth allowance has been incorporated across all of the other non-process infrastructure areas for a total of 5 % within the overall estimate. A project cost contingency of 9.3 % has been applied across the whole Project.

The CCE has been estimated by a number of parties as outlined in Table 1.10 below.

Table 1.10: Contributors to Capital Cost Estimate

Contributor	Area
Wood Australia	Process plant including the process plant infrastructure (excluding items below). Battery limits as outlined in Wood Appendix G Section 5.3.3.
Electricals and Control Global Engineering (ECG)	HV line switching station and substation design and scope of works.
CMW Geoscience (CMW)	Tailings Storage Facility (TSF) / Integrated Waste Landform (IWL)
McNally Mining & Resources	Village Accommodation
GHD Engineering / MACA	Airstrip
Majesso / Bell	Mining Infrastructure
Anthony Elder	Dewatering and reinjection pumping and piping infrastructure
De Grey	Site establishment and temporary construction facilities and equipment. Mobile Assets. Owners Costs.

The bare capital cost to develop the Project is estimated at $1,136 million plus a design growth allowance of $45 million included within the direct process plant costs plus an additional growth and contingency allowance $117 million across the full project scope (combined $162 million) for a total estimated cost of $1,298 million.

The CCE summary by area is presented in Table 1.11. The direct areas of the Project represent approximately 88 % of the total cost, with further growth and contingency allowances representing approximately 12 %.

Table 1.11: Capital Cost Estimate Summary by Facility

Area	Note	Cost $M	Percentage of Total
Processing - Plant	*1*	616	48 %
Processing - Infrastructure	*2*	85	7 %
Processing - Indirects	*3*	37	3 %
Infrastructure - Site	*4*	200	15 %
EPCM/Owner's Costs	*5*	198	15 %
Subtotal		**1,136**	**88 %**
Growth Allowance/Contingency		162	12 %
Total		**1,298**	**100 %**

Notes: 1. Comminution, flotation, oxidation, neutralisation, leaching circuits. Oxygen plant assumed as BOO

2. Power substation, tailings storage facility, buildings, offices, laboratory, and workshops

3. First fill reagents & consumables, ocean freight, spares, commissioning

4. Associated site infrastructure including water supply borefield, village, airstrip, sealed access roads, communications

5. EPCM / Owner's costs / temporary facilities / insurances

1.17 Operating Cost Estimate

The Project's operating costs have been developed based on a projected 10.0 million tonnes per annum processing plant, treating 122.1 million tonnes of ore at a gold grade of 1.5 g/t over approximately 12 years, recovering 5.7 million ounces of gold.

The operating costs have been compiled and developed from a variety of sources including:

- first principal estimates based on a ground up build approach based on key physical drivers, volumes, and consumption rates
- metallurgical testwork
- contractor request for quotation or request for pricing ("RFQ" or "RFP")
- key consultant and vendor recommendations/inputs
- general and administration costs determined by De Grey
- personnel numbers and salaries costs determined by De Grey and external IR consultants
- supplier requests for pricing and budget quotations and
- operational unit rates determined by De Grey from similar operations.

The operating cost estimates presented in this report are considered to have an overall accuracy of -15 % +15 % and are considered to be a Class 3 estimate according to AACEI. Unless otherwise indicated, all financial values are stated in real Australian dollars (A$) as of the second quarter of calendar year 2023, do not allow for escalation (unless otherwise noted) and exclude Australian goods and services tax ("GST").

A summary of the Evaluation Period and First 10 Years AISC is detailed in Table 1.12.

Table 1.12: Evaluation Period All In Sustaining Costs

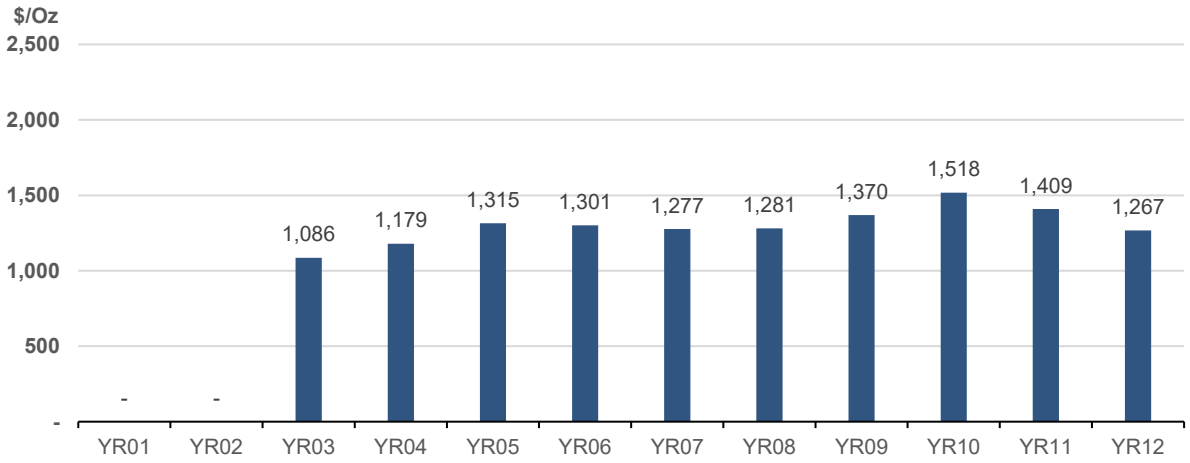
Area	Total	Total A$/tonne	Evaluation Period		*10 Year*
	$Million	milled	A$/oz Produced	% of AISC	*A$/oz Produced*
Mining	3,491	28.60	617	46.2 %	***643***
Processing & Lab	2,956	24.22	523	39.1 %	***473***
Administration	281	2.30	50	3.7 %	***45***
Cash Operating Costs	**6,728**	**55.13**	**1,189**	**88.9 %**	***1,161***
Non-Production Costs	142	1.16	25	1.9 %	***25***
Royalties	382	3.13	68	5.1 %	***68***
Sustaining & Project Capital	125	1.03	22	1.7 %	***21***
Tailings Dam Wall Lifts	106	0.87	19	1.4 %	***20***
Rehabilitation	81	0.66	14	1.1 %	***0***
Total All in Sustaining Costs (AISC)	**7,565**	**61.98**	**1,337**	**100.0 %**	***1,295***

Total Evaluation Period All-in Sustaining Cost (AISC) for the Project is estimated at $7,565 million at a unit cost per tonne milled of $62 and $1,337 per ounce produced ($1,295/oz over 10 year interval).

Annual unit operating costs vary year to year depending on the grade of ore processed and gold produced per annum.

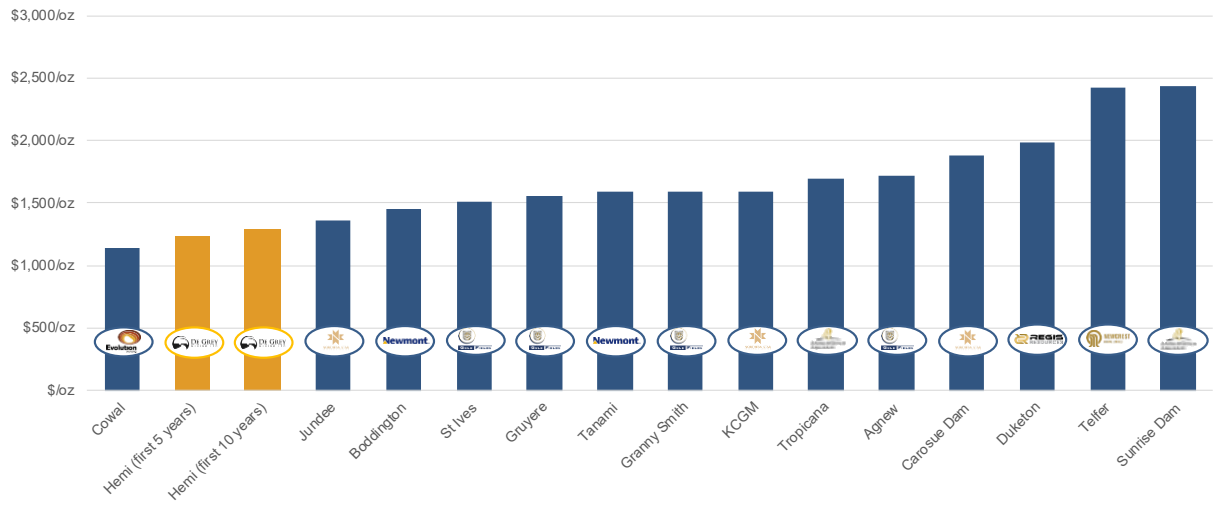
A summary graph of the 10 year AISC is presented in Figure 1-36 below. The first two years of gold production have a AISC below $1,200/oz and contribute to the short capital payback period of the Project at less than 2 years (pre-tax).

Figure 1-36: AISC 10 Year



Based on a AISC of $1,295/oz, this would place Hemi within the lowest AISC quartile for Australian gold projects producing above 200,000oz per annum as presented in Figure 1-37.

Figure 1-37: AISC For Australian Gold Mines Above 200k ounces pa



Comparison between Hemi DFS estimates and the average FY23 AISC of Australian gold mines producing over 200koz of gold per annum. Fosterville excluded from the comparison as Agnico Eagle do not disclose an AISC for the project. Cadia excluded from the comparison due to the significant copper credits. Referencing contained in Appendices. The Hemi mine plan contains approximately 1% Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised.

1.18 Environmental, Social and Governance

The De Grey Board and management team are committed to conducting their business activities in a safe, responsible, ethical and sustainable manner.

De Grey operates within a sustainability framework that outlines the priority areas of focus for the Board, management, employees and contractors at each stage of its development providing for a robust foundation from which to expand and grow.

To that end the De Grey Board resolved to implement the International Council of Mining and Metals' ("ICMM") Mining Principles into its development planning and anticipated future execution of the Hemi Gold Project.

The alignment of De Grey's development planning for the Hemi Gold Project with the ICMM's Mining Principles will have practical outcomes in areas including the use of renewable energy, future procurement decisions, environmental management, and mine closure planning.

To augment the ICMM Mining Principles in the area of climate change, the De Grey Board has also resolved to adhere to the Task Force on Climate Related Financial Disclosures ("TCFD") as it progresses through the development, construction and operational phases of the Hemi Gold Project.

Figure 1-38 shows the framework adopted by De Grey in order to undertake its operations in a sustainable manner.

For this Study, RPM Advisory Services Pty Ltd ("RPM") was engaged by De Grey to complete an ESG Review of the DFS for the Project. The review assessed the environmental, social, and governance ("ESG") factors that were considered in the design of the Project. Table 1.13 shows the design processes that influenced the principle components of the Project.

Figure 1-38: De Grey Mining Sustainability Framework

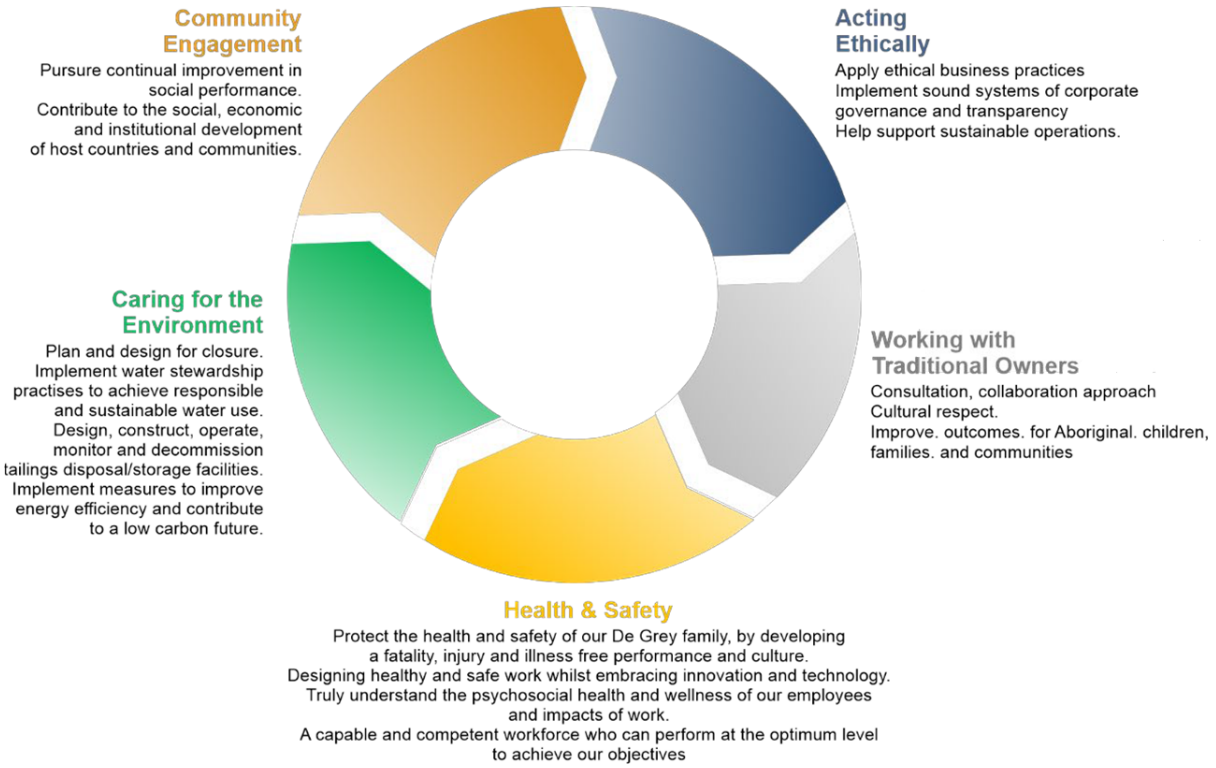


Table 1.13: Principle Mine Site Components

Component	Aspect Considered
Mine Design	The location of landforms and infrastructure, the mining scheduling, and the mining operations.
Processing Plant Facility	Comprising the various stages required to process mined ore into gold dorè.
Energy Supply	Consideration of electricity and mining fleet fuel supply.
Tailings Storage Facility	The location and design of the landform for the storage of tailings from the processing facility.
Waste Rock Landforms	The location and design of the landforms for the placement of overburden and non ore-bearing rock.
Groundwater Management	The abstraction, discharge, and/or reinjection of groundwater
Ancillary Infrastructure	The location and design of the accommodation village and airstrip, and consideration of supply chain logistics

For each component, the most directly relevant ICMM principles and associated performance expectations were mapped out. The design process for each principle component were then qualitatively assessed against the identified expectations.

In addition to this, the relevant TCFD metrics for each principle component were identified, with a view to setting targets at a later stage in the Project's development.

In addition to the ESG Review by RPM, De Grey engaged Wood PLC to undertake an emissions assessment for the Project. A high level summary of that assessment is included in this section.

Mine Design

- The decision to refine the ore onsite to produce gold dorè removes the need to transport concentrated ore to Port Hedland for onward shipment to an offshore refinery, significantly reducing the Project's downstream Scope 3 greenhouse gas emissions and avoiding the health, safety and environment risks associated with the road and sea transport of concentrated ore;
- The mining schedule has factored in the varying quality of the groundwater to be dewatered, enabling an acceptable quality of water to be discharged to the environment;
- The mine layout avoids any encroachment into the 50 m buffer zone surrounding the Priority Ecological Community ("PEC") and the associated area of Aboriginal cultural significance;
- None of the Project's infrastructure extends into the nearby Priority 1 Public Drinking Water Supply Area ("PDWSA"), and the mine dewatering system has been designed so that the 1 m groundwater drawdown contour does not materially impact the PDWSA;
- The Waste Rock Emplacements ("WRE") have been positioned to minimise haulage distances and the sterilisation of mineralised areas. This will result in the need to remove some fauna habitat and impact two sites of Aboriginal cultural significance, subject to ongoing consultation with the Kariyarra People;
- Overall, the design of this component performs well against the considered ICMM principles and performance expectations.

Processing Plant Facility

- The comminution circuit comprises three stage crushing including high pressure grinding rollers ("HPGR") and wet ball milling, which resulted in the lowest practical carbon emissions intensity;
- The process flowsheet includes the use of a Pressure Oxidation (POx) process. Compared to other viable options considered, POx has a lower reagent and power consumption. It also produces benign tailings and stable arsenate species;
- Smelting gold dorè onsite marginally increases power demand and associated scope 1 greenhouse gas emissions. This is considered preferable to third party smelting potentially occurring offshore, as De Grey would lose direct control over emissions associated smelting operations. Combined with this is the additional transport of ore from the mine to an offshore smelter, which would result in higher greenhouse gas ("GHG") emissions;
- Overall, the design of this component performs well against the considered ICMM principles and performance expectations.

Energy Supply

- The Scope 1 emissions from diesel use and the direct emissions from processing required for neutralisation will exceed the 100 kt CO_2-e per annum threshold for the Commonwealth Government's Safeguard Mechanism and the Environmental Protection Authority ("EPA") WA Greenhouse Gas ("GHG") assessment trigger;
- As this is a new facility the Safeguard Mechanism will require De Grey to remain below the best practice emissions intensity baseline. The current default emissions intensity of 0.00859 tonnes of CO_2-e per tonne of run-of-mine ("ROM") metal ore. The best practice emissions intensity will be set by the Clean Energy Regulator before the end of 2023. This best practice emissions intensity will reduce by 4.9 % annually until 2030;

- A GHG environmental management plan ("GHG EMP") has been developed to demonstrate the Project's trajectory to achieving net zero by 2050 to the WA EPA under the GHG Emissions Environmental Factor Guideline;
- The Project's decarbonisation strategy demonstrates that it can achieve significant reductions in GHG emissions relative to the baseline scenario, along a trajectory to net zero by 2050;
- Overall, the design of this component performs well against the considered ICMM principles and performance expectations.

Tailings Storage Facility

- An alternative options study concluded that an Integrated Waste Landform ("IWL") is the preferred Tailings Storage Facility ("TSF") design option as it provides a robust storage option with manageable environment impacts, low operational and regulatory risk;
- An IWL has significant advantages in relation to construction and closure, as mine waste can be readily deployed during mining for embankment construction and closure rehabilitation objectives at a relatively low cost;
- While the IWL option entails somewhat more haulage of mine waste for construction (hence higher greenhouse emissions from haul trucks) than some other options; these are offset by the greater long term stability and reduced footprint, which enable less clearing of fauna habitat and encroachment on the Aboriginal site of cultural significance;
- The IWL has been located as close to the pits as practicable to minimise haul distances while also keeping the facility upstream of the pits to provide contingency should an uncontrolled seepage event occur. Placement options also need to consider the location of other infrastructure, mineralisation and tenure;
- The Kariyarra People will be consulted on the final appearance and use of the landform during the development of the Project's mine closure plan;
- Overall, the design of this component performs well against the considered ICMM principles and performance expectations.

Waste Rock Landform

- Sample testing results indicate that the geochemical characteristics of the waste rock to be stored in the WRE's are relatively benign. Any Potentially Acid Forming ("PAF") waste rock material will be suitably encapsulated in the WRE to prevent any potential Acid Metalliferous Drainage ("AMD").
- To achieve the design standards and erosional stability outcomes, conservative landform designs have been adopted that include limiting the WRE and TSF bench lift heights to 10 m and 15 m respectively.
- The Kariyarra People will be consulted on the final appearance and use of the landform during the development of the Project's mine closure plan.
- Overall, the design of this component performs well against the considered ICMM principles and performance expectations.

Groundwater Management

- In the first two years of Project development whilst the processing facility is being constructed, groundwater abstracted during dewatering will be surplus to the Project's needs;
- Two options for the surplus dewatered groundwater have been considered in detail during the Project's design; reinjection into the paleochannel aquifer, and discharge via an outfall to the Turner River;
- Both options have considered the need to manage naturally elevated metal concentrations in the abstracted groundwater. These elevated levels only exist in some bores typically in areas that intersected the Hemi deposits;
- Reinjection into specific bores in the palaeochannel that recirculate the water back to the Hemi dewatering system during the operational phase enables this water to be then redirected to the processing facility. The oxidative nature of the processing facility then stabilises these metals prior to storage in the TSF;
- Other options still under consideration include the provision of the water to a third party, for example, a proximate mining project;
- A pipeline will be installed to pipe the "non-elevated" dewatered groundwater from the mining area to water storage facilities prior to discharge via an outfall in the Turner River. Managing the dewatered groundwater to ensure that from "elevated" and "non-elevated" are separately pumped and directed to the appropriate destinations will ensure that the quality of the discharged surplus water can be managed such that guidelines are met;
- Once operational, the processing facility will utilise the abstracted groundwater in the oxidative process and discharge it to the TSF, from which a portion will be decanted and returned to the processing facility for reuse;
- Overall, the design of this component performs well against the considered ICMM principles and performance expectations.

Ancillary Infrastructure

- Deliveries will generally follow the lowest cost, most direct means and routes, which tend to correlate with lower fuel use and associated Scope 3 GHG emissions;
- It is also anticipated that third party delivery companies will transition to low or zero emissions vehicles as these become more readily available, enabling De Grey to stipulate their use where practicable;
- The construction of an onsite accommodation village and airstrip will be progressed as they offer emissions reduction and safety advantages over the use of infrastructure in Port Hedland;
- The accommodation village will meet modern industry standards and workforce expectations, and incorporate hybrid construction, utilising both in-situ and modular techniques, which will add value to the whole of asset life through low maintenance costs;
- Overall, the design of this component performs well against the considered ICMM principles and performance expectations.

Emissions Assessment

Wood PLC assessed the Scope 1, 2 and 3 emissions that can be expected from the Project over the life of mine based on information available from this Study.

Wood calculated a base case emissions assessment, which represents a scenario where no decarbonisation options are incorporated into the Project. In conjunction with this, a risk and opportunity assessment was developed, which identified the decarbonisation options that De Grey intends to pursue.

Table 1.14 and Table 1.15 show the impacts of these decarbonisation options that were assessed and incorporated into a low carbon case for two power supply options (Supplier 1 and Supplier 2).

Table 1.14: Principle Mine Site Components

Emission Category[1]	Base Case Emissions	Low-carbon Case Emissions	Difference	Base Case Carbon Intensity	Low-carbon Case Carbon Intensity	Carbon Intensity Difference	% Reduction
	tCO_{2e}	tCO_{2e}	tCO_{2e}	tCO_{2e}/ozAu	tCO_{2e}/ozAu	tCO_{2e}/ozAu	Low-carbon vs Base Case
Scope 1	2,546,333	2,046,592	499,741	0.42	0.34	0.08	19.6 %
Scope 2	2,219,820	808,751	1,411,070	0.37	0.13	0.23	63.6 %
Scope 3	3,414,891	3,274,346	140,545	0.56	0.54	0.02	4.1 %
Scope 1+2	4,766,153	2,855,342	1,910,811	0.79	0.47	0.32	40.1 %
Scope 1+2+3	8,181,044	6,129,689	2,051,355	1.35	1.01	0.34	25.1 %

Notes: 1. Compared to Supplier 1 Base Case

Table 1.15: Emission Reduction Between Base Case and Low Carbon Base – Supplier 2

Emission Category[1]	Base Case Emissions	Low-carbon Case Emissions	Difference	Base Case Carbon Intensity	Low-carbon Case Carbon Intensity	Carbon Intensity Difference	% Reduction
	tCO_{2e}	tCO_{2e}	tCO_{2e}	tCO_{2e}/ozAu	tCO_{2e}/ozAu	tCO_{2e}/ozAu	Low-carbon vs Base Case
Scope 1	2,546,333	2,046,592	499,741	0.42	0.34	0.08	19.6 %
Scope 2	3,201,664	1,166,467	2,035,197	0.53	0.19	0.34	63.6 %
Scope 3	3,414,891	3,274,346	140,545	0.56	0.54	0.02	4.1 %
Scope 1+2	5,747,996	3,213,059	2,534,938	0.95	0.53	0.42	44.1 %
Scope 1+2+3	9,162,887	6,487,405	2,675,482	1.51	1.07	0.44	29.2 %

Notes: 1. Compared to Supplier 2 Base Case

The options evaluated and incorporated into the low carbon case are:

- Scope 1 emissions reductions;
  - Electrification of mining fleet;
  - Electrification of associated mining equipment (borefield pumps);
  - Electrification of onsite vehicles
- Scope 2 emissions reductions;
  - Hybrid grid power plus renewables via a Power Purchase Agreement;
  - Optimisation of equipment choice; sizing, redundancy and operating protocol;
  - Sustainable buildings;
- Scope 3 emissions reductions;
  - Bulk transport by road (electric or hydrogen powered vehicles);
- Offsets;
  - None.

The assessment demonstrates that the emissions intensity difference between the potential power suppliers is insignificant over the life of mine, provided the chosen supplier delivers on their commitments to decarbonise supply to the NWIS. This assessment also highlights the significant impact of hard to abate categories of emissions, specifically Scope 1 process emissions and Scope 3 embodied carbon in reagents.

Figure 1-40 to Figure 1-43 show the respective base case carbon emissions and low carbon case carbon emissions for Supplier 1 and Supplier 2.

Figure 1-39: Carbon Emissions: Scope 1, 2 and 3 – Base Case - Supplier 1

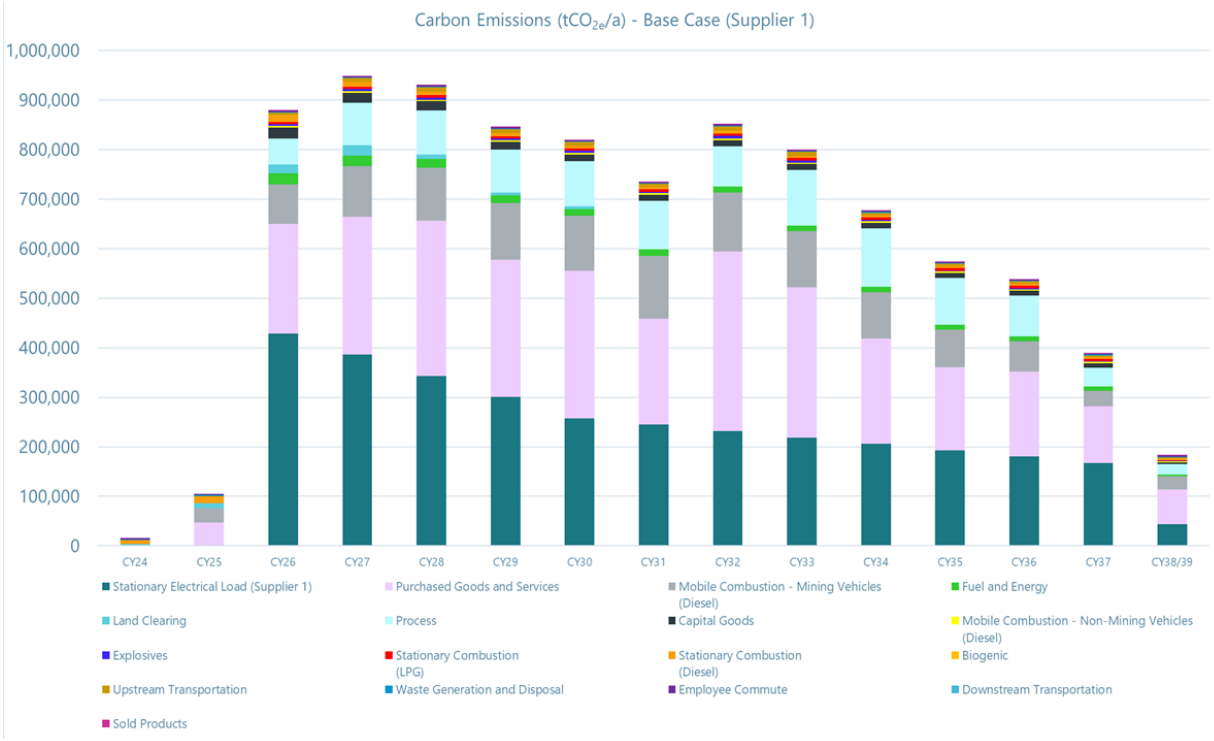


Figure 1-40: Carbon Emissions: Scope 1, 2 and 3 – Low Carbon Case - Supplier 1

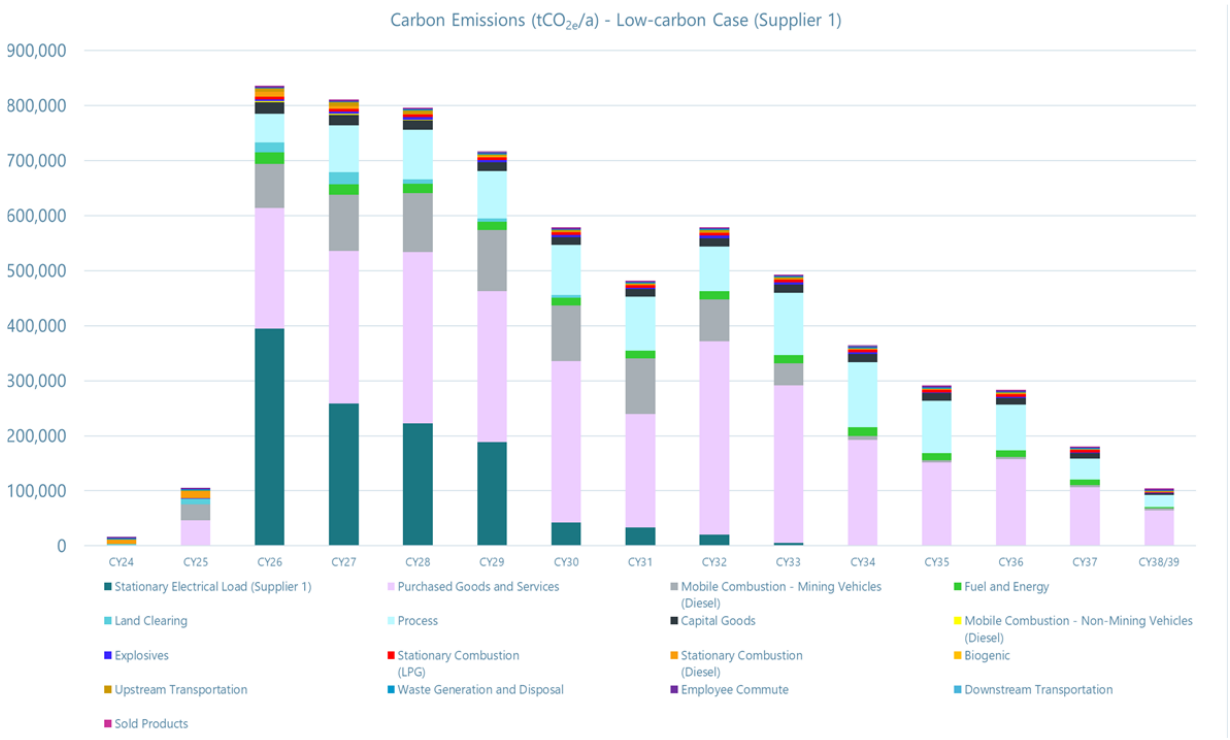


Figure 1-41: Carbon Emissions: Scope 1, 2 and 3 – Base Case - Supplier 2

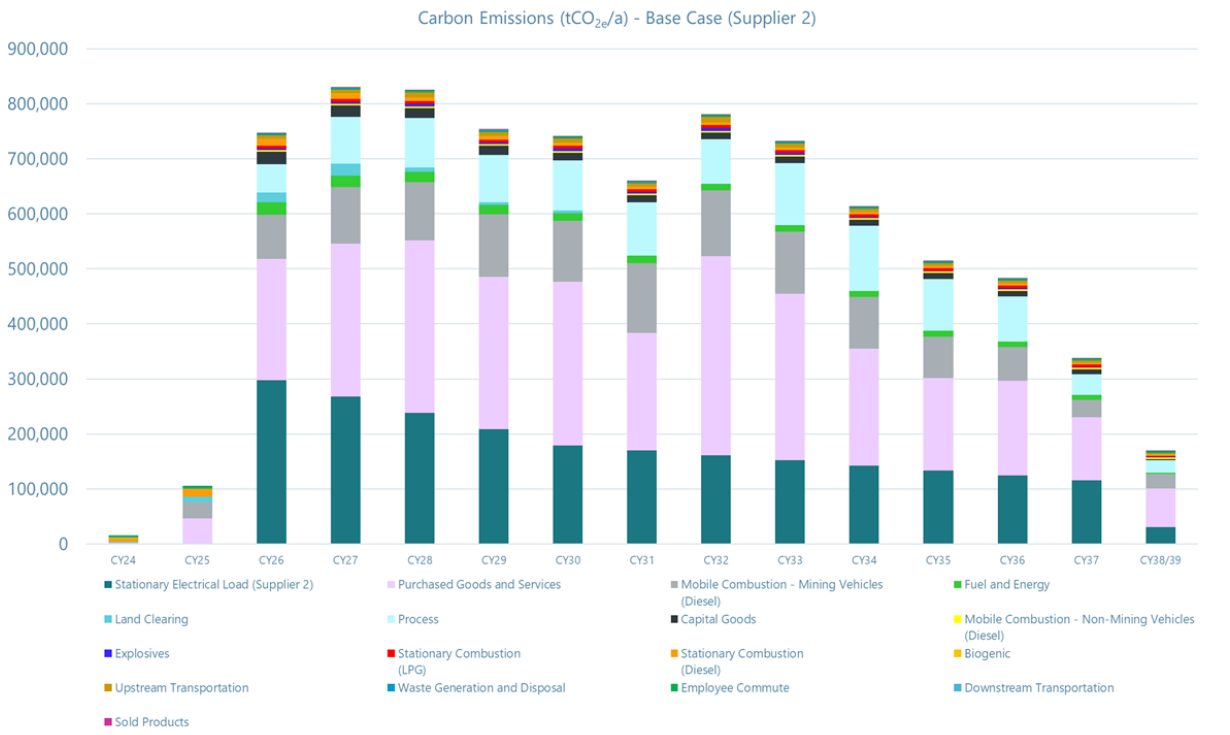
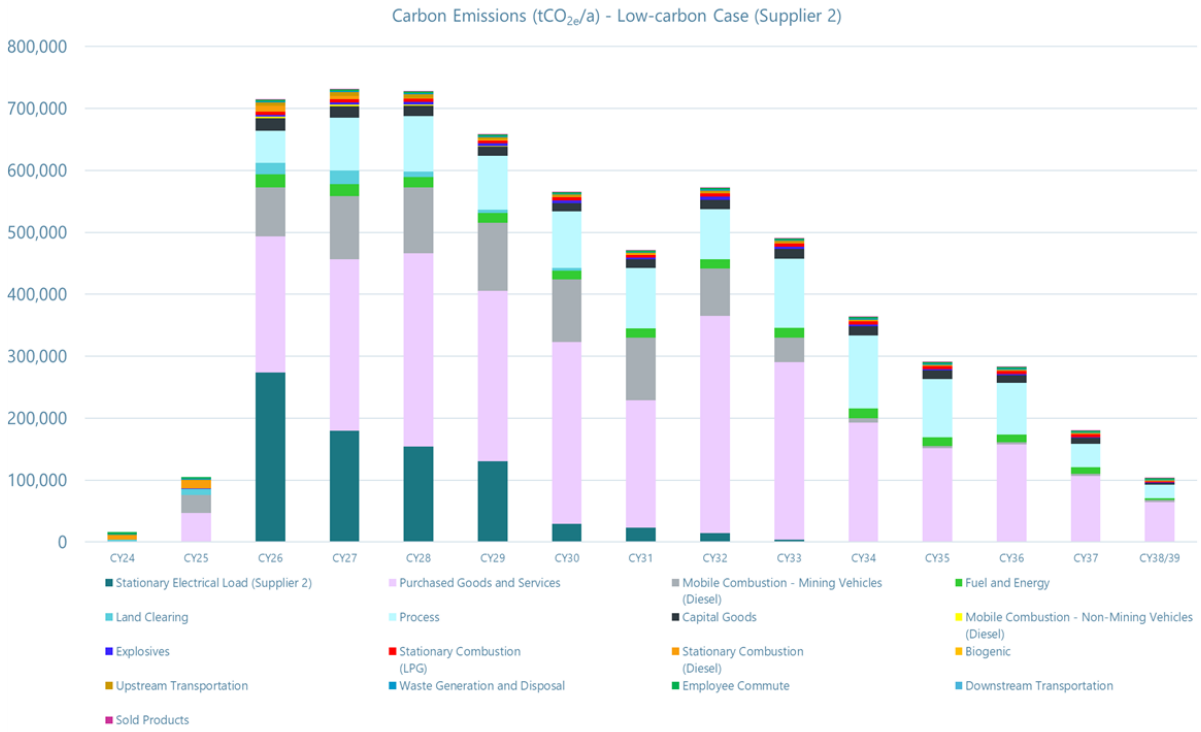


Figure 1-42: Carbon Emissions: Scope 1, 2 and 3 – Low Carbon Case - Supplier 2



1.19 Financial Analysis

The financial analysis of the Project was completed by the De Grey Study Team and the consultant Corporate Advisor - Azure Capital ("Azure").

Physical Assumptions

The financial modelling was based on a projected 10.0 Mtpa processing plant, treating 122 Mt of ore at 1.5 g/t Au to recover 5.7 Moz Au over an approximate 12 year evaluation period from only Hemi Ore Reserves and Mineral Resources.

The production profile of the DFS demonstrates an annual production range up to approximately 570,000 oz Au in year 2 of processing with an average production of 553,000 oz Au/annum in the first five years and 530,000 oz Au/annum in the first 10 years.

Gold production for the ten year evaluation period is sourced from 99 % of ore categorised as JORC Probable Ore Reserves. The Mineral Resource Estimate and Ore Reserves underpinning the production targets in the financial analysis has been prepared by competent persons in accordance with the requirements of the 2012 JORC Code.

The DFS financial modelling is predicated on the construction of a new processing plant and associated infrastructure at Hemi.

Financial Assumptions

The financial model is based on accrued costs and revenues adjusted for the actual timing of expenditure and revenue receipts through working capital movements to reflect the timing of cashflows on an as incurred / received basis. The financial analysis does not consider by-product credits in the revenue stream.

Unless otherwise indicated, all financial values are stated in real Australian dollars (A$ or $) and does not allow for escalation and excludes Australian goods and services tax.

The DFS economics have been assessed at the post-tax, unlevered, project level using the discounted cashflow method, based on a monthly schedule of material mined and processed.

Macro Economic Assumptions

The industry standard 5 % discount rate was applied for the NPV assessment of the Project.

The gold price of A$2,700/oz is considered in line with recent Australia gold studies and at an appropriate discount to the spot price quoted by the Perth Mint at the time of the study, which was approximately A$2,950 /oz Au. Applying market rates for capital and operating costs and a discounted gold price for revenue highlights the conservativism in the financial modelling.

Financial Outcomes

Based on the inputs of the LOM financial model and a gold price of $2,700/oz, the DFS delivers the following outstanding unlevered financial results:

- Free cashflow of $6.3 billion pre-tax and $4.5 billion post-tax (undiscounted);
- $NPV_{5\%}$ of $4.2 billion pre-tax and $2.9 billion post-tax;
- IRR of 45 % pre-tax and 36 % post-tax;
- Payback period of 1.5 years pre-tax and 1.8 years post-tax due to the exceptional endowment of the Brolga starter pit;
- Average annual gold production and AISC of:
  - 553,000 oz Au/annum @ $1,229 /oz in years 1 to 5;
  - 530,000 oz Au/annum @ $1,295 /oz in years 1 to 10;
  - Peak production of 570,000 oz Au in year 2.

Figure 1-43, Figure 1-44 and Figure 1-45 show the Project's annual and cumulative free cashflows (post tax, unlevered), gold production and grade, and processed tonnes and grade respectively.

Figure 1-43: Annual and Cumulative (Post tax Unlevered) Cashflows – Hemi Gold Project

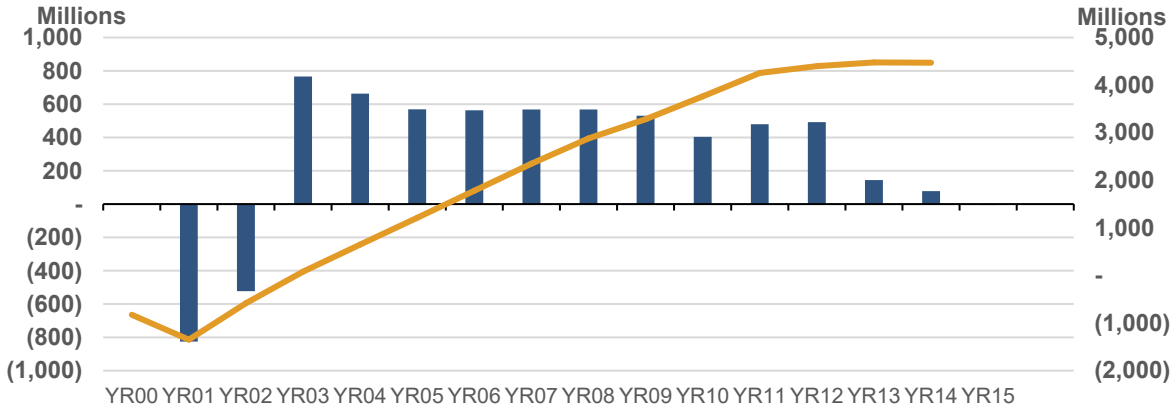


Figure 1-44: Annual Hemi Gold Project Gold Production (koz Au) and Grade (g/t Au)

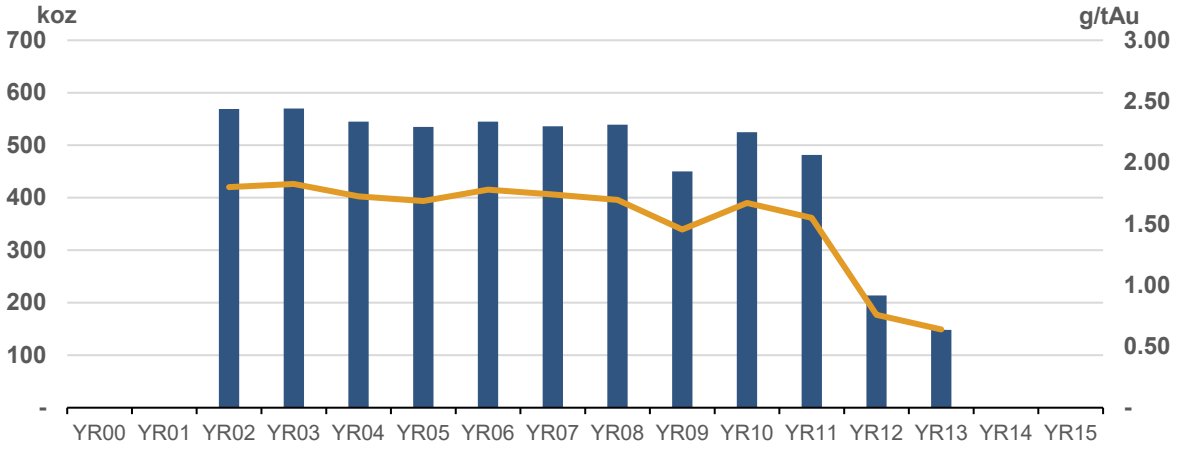


Figure 1-45: Processed Tonnes (Mt) & Grade (g/t Au)

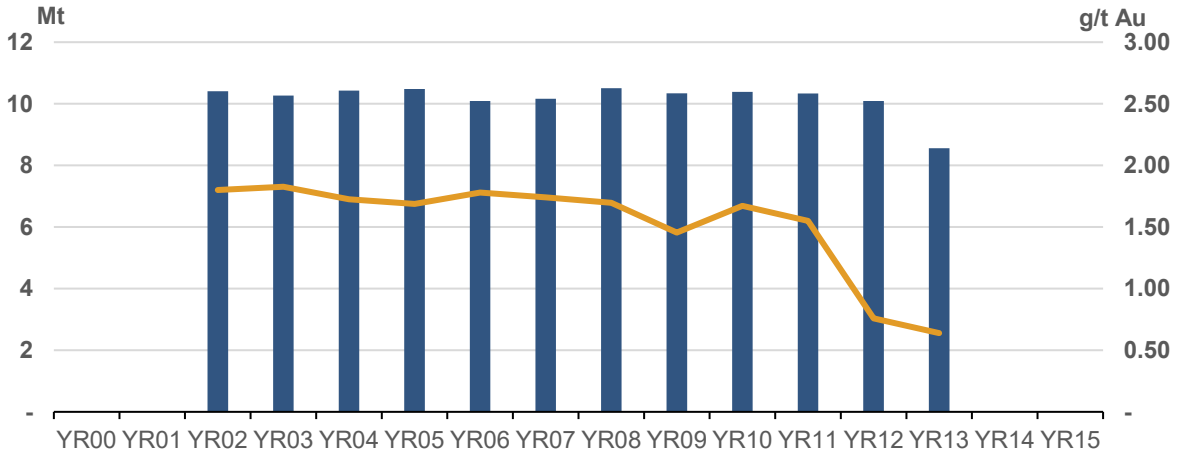


Table 1.16 shows a comparison of the physical and financial evaluation of the Project from PFS 2022 to this DFS with the Project demonstrating consistent production, operating cost outcomes and excellent IRR.

Capital Cost Estimate

The capital cost estimate for the 10 Mtpa processing plant and non-process infrastructure is made up of the following:

- $1,044 M for the processing plant, inclusive of $45 M (6.3 %) growth allowance and $94 M (10 %) contingency;
- $254 M for the non process infrastructure, inclusive of $11 M (5 %) growth allowance and $12 M (5 %) contingency;
- $1,298 M total for the processing plant and non process infrastructure, inclusive of $56 M growth allowance and $106 M contingency (~14% in total);
- Excludes pre-production and pre-strip costs of $47 M.

It should be noted that the lesser percentages for growth allowance and contingency for non process infrastructure is the result of a significant portion of this estimate having already progressed to more advanced engineering design and in area of village accommodation, tender submission.

Table 1.16: Comparison of PFS 2022 and DFS for Production and Financial Assumptions and Outcomes for LOM

Key Outcomes			Unit	PFS 2022	DFS
Key Production Outcomes	Production Sources			Hemi + Regionals	Hemi
	Evaluation Period		Years	13.6	12.0
	Ore Tonnes Mined		Mt	136	122
	Strip Ratio – Hemi		waste:ore	6.1:1	6.6:1
	Ore Processing Rate (nameplate)		Mtpa	10	10.0
	Average Processed Grade – Evaluation Period		g/t Au	1.6	1.5
	Average Processed Grade – First 10 Years		g/t Au	1.8	1.7
	Average Metallurgical Recovery		%	93.6	93.5
	Average Gold Production - First 5 Years		koz pa	550	553
	Average Gold Production - First 10 years		koz pa	540	530
	Total Recovered Gold		Moz	6.4	5.7
	Hemi Contribution		%	83	100
	Reserve Contribution		%	80	99
Key Financial Outcomes	Gold Price		$/oz	2,400	2,700
	Spot Gold Price at time of Study		$/oz	2,500	2,950
	All In Sustaining Costs (AISC)	Average first 5 years	$/oz	1,220	1,229
		Average first 10 years	$/oz	1,280	1,295
	Free Cash Flow (Life of Mine)	Pre-tax	$ billion	5.9	6.3
		Post-tax	$ billion	4.2	4.5
	EBITDA (Life of Mine)		$ billion	7.1	7.9
	Payback Period	Pre-tax	Years	1.6	1.5
		Post-tax	Years	1.8	1.8
	Net Present Value 5% (NPV)	Pre-tax	$ billion	3.9	4.2
		Post-tax	$ billion	2.7	2.9
	Internal Rate of Return (IRR)	Pre-tax	%	51	45.0
		Post-tax	%	41	36.0
	Upfront Capital Cost Estimate	Plant and Infrastructure Capital Cost	$ million	885	1,136
		Design Growth Allowance & Contingency	$ million	100	162
		Pre-strip	$ million	68	47
		Total Pre-Production Capital Costs	$ million	1,053	1,345
	Key Environmental and Social (ES) Statistics	LOM State Royalties & Corporate Taxes	$ billion	2.1	2.2
		LOM Expenditure	$ billion	9.1	8.6
		LOM Total Economic Value Add	$ billion	11.2	10.8
		Carbon intensity	$t.CO_2/ozpa$	0.6 – 0.3	**0.79 – 0.49**

The overall capital cost estimate has increased by approximately 28 % since PFS 2022, which is in line with increases seen in similar scale mining projects in Australia. A high level review of the capital cost estimate was undertaken by GR Engineering Services who found the estimate in line with expectations for a project of this type and scale located in the Pilbara region.

Table 1.17 shows a breakdown of the various key components of the DFS capital cost estimate.

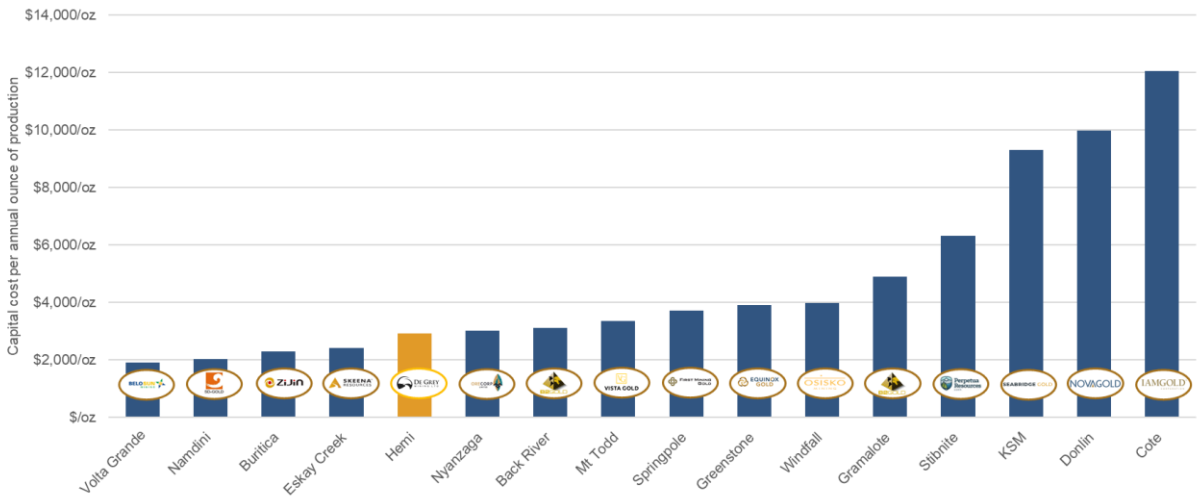
Table 1.17: Breakdown of the DFS Capital Cost Estimate

Area		Cost
	Note	$M
Processing - Plant	1	616
Processing - Infrastructure	2	85
Processing - Indirects	3	37
Infrastructure - Site	4	200
EPCM/Owner's Costs	5	198
Subtotal		**1,136**
Growth Allowance/Contingency		162
Total		**1,298**

Notes:
1. Comminution, flotation, oxidation, neutralisation, & leaching circuits; oxygen plant assumed as BOO
2. Power substation, tailings storage facility, buildings, offices, laboratory, and workshops
3. First fill reagents & consumables, ocean freight, spares, commissioning
4. Associated site infrastructure including water supply borefield, village, airstrip, sealed access roads, communications
5. EPCM / Owner's costs / temporary facilities / insurances

Based on the outcomes of the DFS, Hemi remains as one of the world's largest and lowest capital intensive gold development projects as shown in Figure 1-46.

Figure 1-46: World Gold Development Projects Capital Intensity (A$/annual oz Au)



Comparison made between Hemi DFS estimates and current major non-producing gold development assets globally. Referencing contained in Appendices. The mine plan contains approximately 1% Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised.

AISC

The Project's AISC are forecast to be $1,229 /oz Au for the first five years and $1,295 /oz Au for the 10 year evaluation period as shown in Figure 1-47, which positions it in the lower quartile of Australian gold producers as shown in Figure 1-48. The Project will also be in the top three for gold production as shown in Figure 1-49.

Project Financial Sensitivity

A sensitivity analysis demonstrates that the Project is resilient to fluctuations in gold grade, gold price, AISC, discount rate, gold recovery and capital cost as shown in Figure 1-50. Figure 1-50 also highlights that the sensitivity of the capital cost estimate has decreased since PFS 2022 as a result of the increased value of the asset.

The Project NPV waterfall as shown in **Error! Reference source not found.** highlights the significant leverage of the Project to the gold price due to the lower quartile AISC.

Figure 1-47: Hemi AISC – 5 Years, 10 Years, LOM (A$ /oz Au)

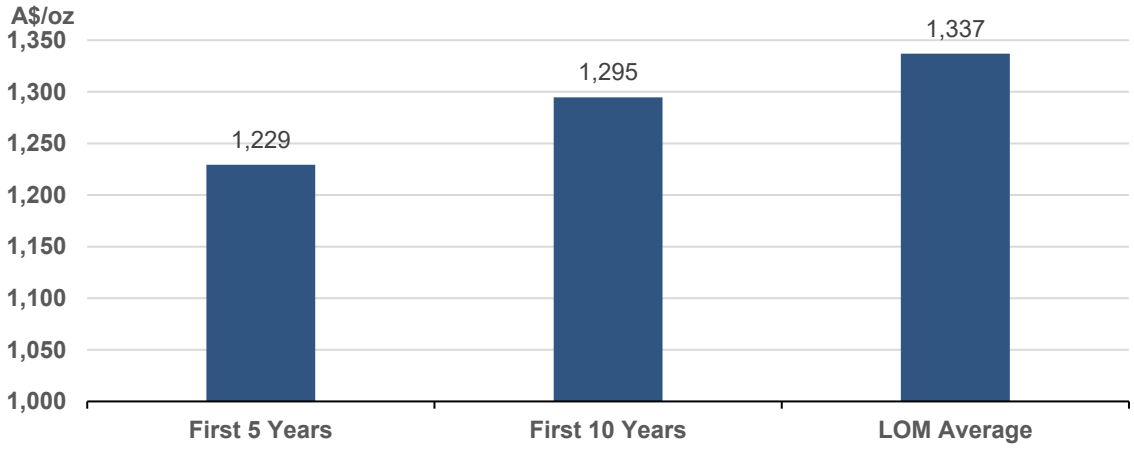
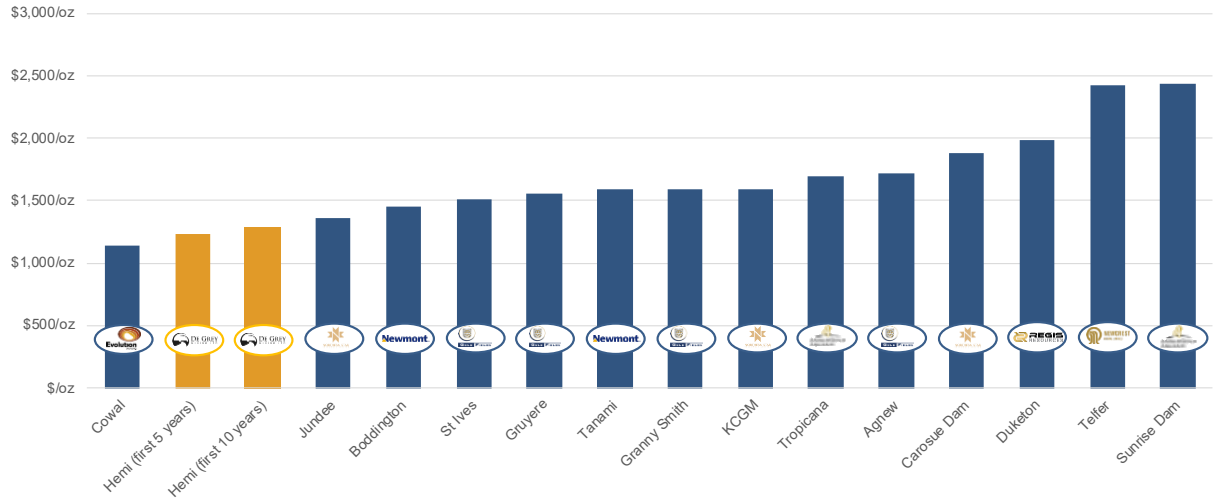
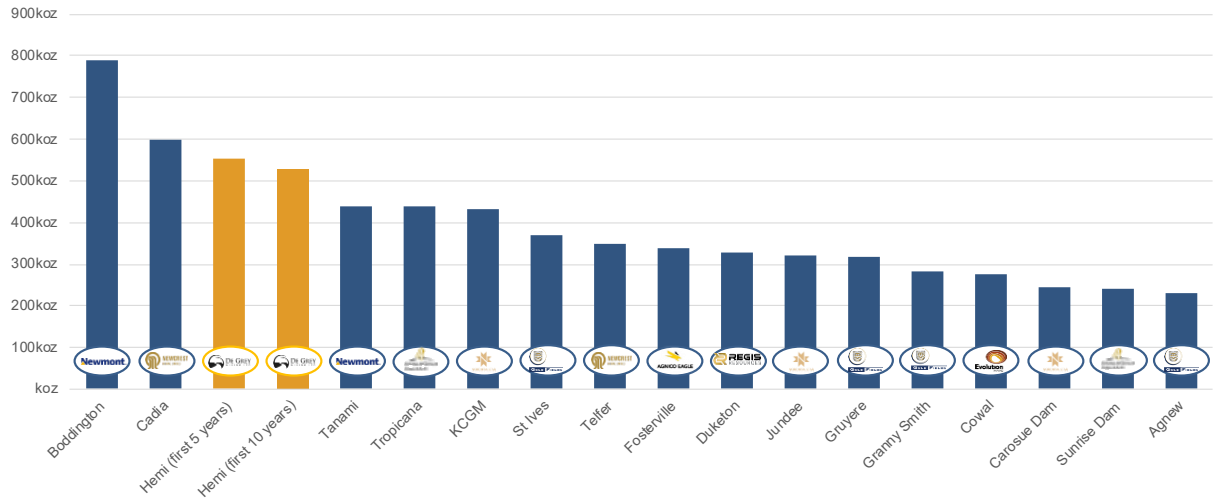


Figure 1-48: AISC for Australian Gold Mines – FY2023 (A$ / oz Au)



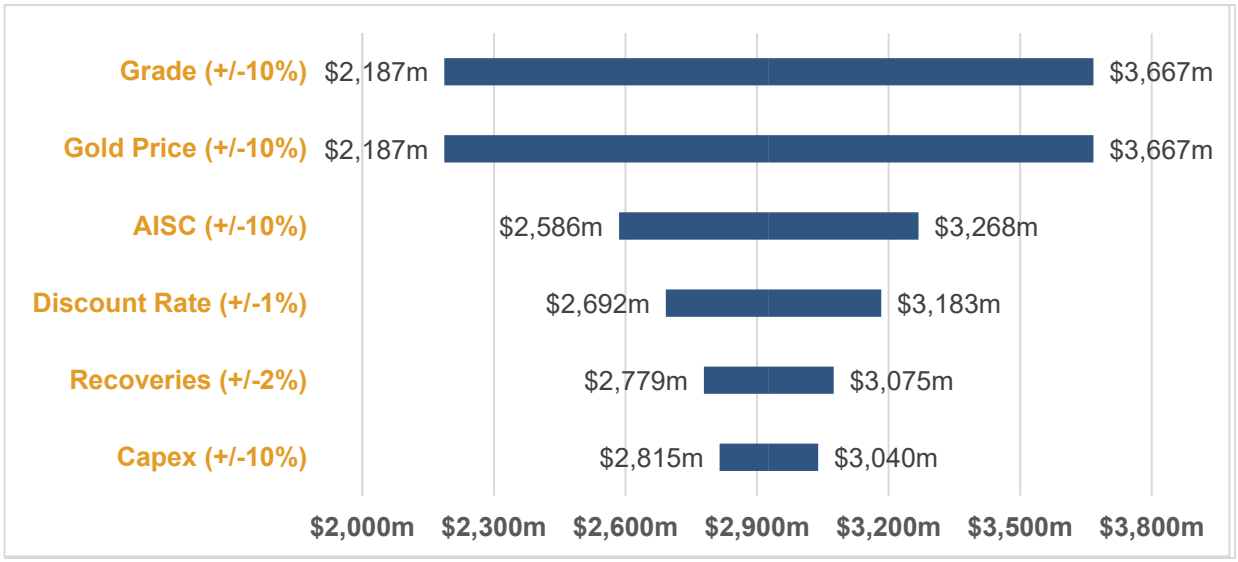
Comparison between Hemi DFS estimates and the average FY23 AISC of Australian gold mines producing over 200koz of gold per annum. Fosterville excluded from the comparison as Agnico Eagle do not disclose an AISC for the project. Cadia excluded from the comparison due to the significant copper credits. Referencing contained in Appendices. The Hemi mine plan contains approximately 1% Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised.

Figure 1-49: Australian Projects Annual Gold Production (koz Au /annum)



Comparison between Hemi DFS estimates and the FY23 production of Australian gold mines producing more than 200koz of gold per annum. Referencing contained in Appendices. The Hemi mine plan contains approximately 1% Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target itself will be realised.

Figure 1-50: Hemi Gold Project $NPV_{5\%}$ Sensitivity Analysis



1.20 Risks and Opportunities

De Grey's risk and opportunity management processes require risks and opportunities at all levels to be identified, assessed, controlled, and communicated in accordance with the international standard for risk management, ISO 31000:2018 – Risk Management.

A risk assessment of the project was undertaken as part of this Study. The risk assessment process was used to identify key design, operational, safety, financial and environmental risks of the project, and establish potential control measures to mitigate the identified risks to acceptable levels.

The risk process that was adopted utilised a series of workshops and discussions to develop the risk register for the study. The methodology followed for the risk assessment process was as follows.

The risk assessment methodology that was adopted for each identified risk considered the current risk rating including any existing controls, and then assessed the residual (target) risk rating, assuming the successful implementation of the additional proposed control measures.

The risk rating for the Project has been based on the De Grey risk matrix, where 'red' is extreme or high, 'yellow' is moderate and 'green' is low. The 'likelihood' and 'consequences' rankings used the definitions and criteria from the DeGrey risk assessment methodology.

Each risk in the register is assigned a current and target (residual) rating, which are defined as:

- Current risk rating: The level of risk remaining after considering the controls that are already in place and have had their effectiveness tested;
- Target risk rating: The level of risk remaining after appropriate controls have been put in place.

The risks will be reviewed and the risk register updated at regular intervals to evaluate the effectiveness of the proposed mitigation strategies.

The Project Risk Register currently contains risks and opportunities. Figure 1-51 shows a graphical representation of the current risk ratings and target risk ratings for key risks. Figure 1-52 shows a graphical representation of opportunities prior to and post the risk assessment process.

Figure 1-51: Status of Current Risks and Target Risks

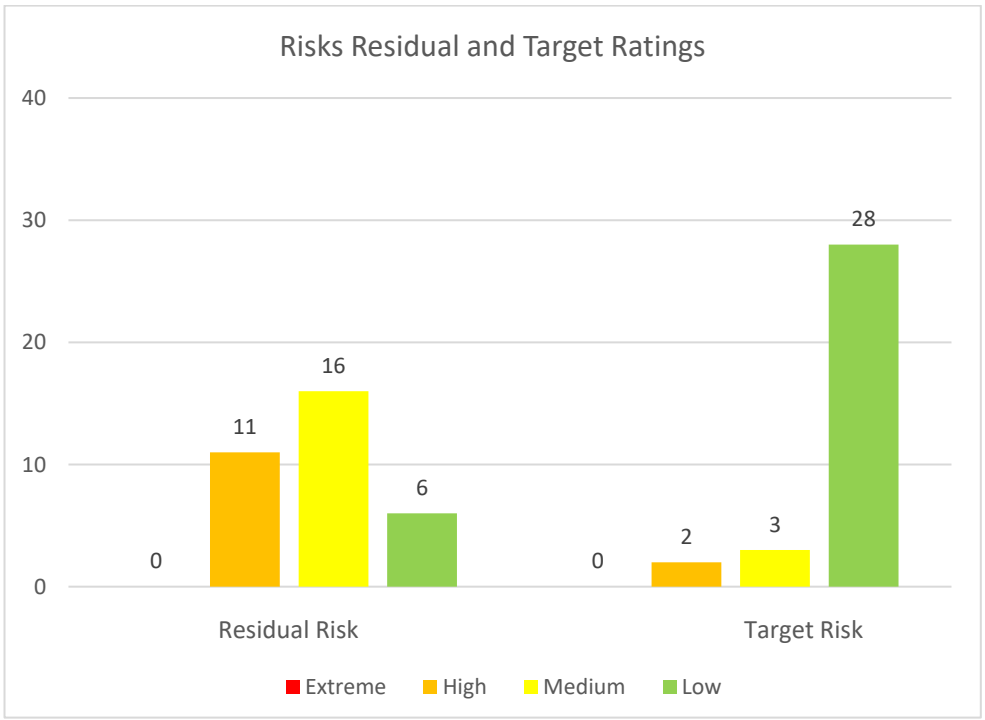
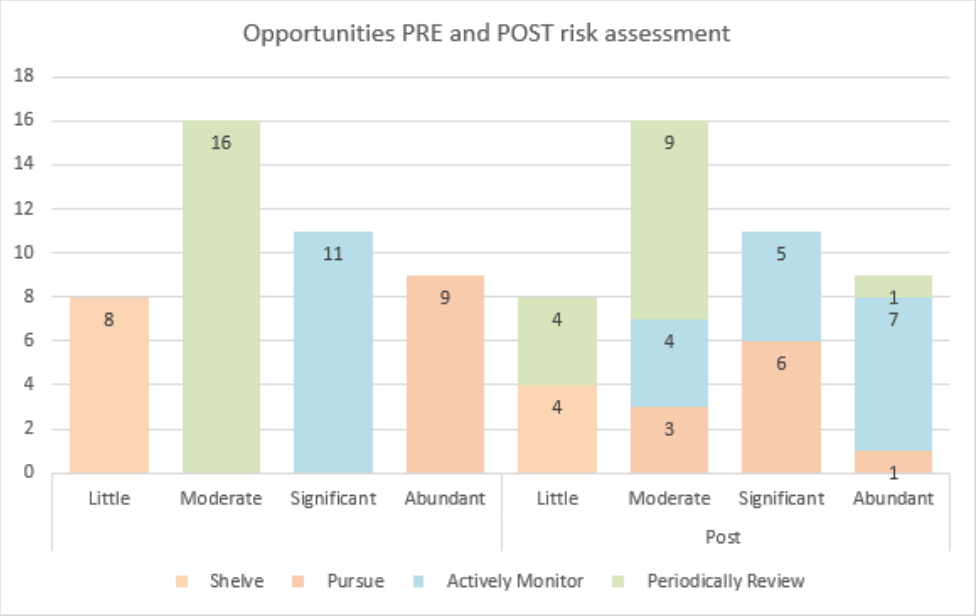


Figure 1-52: Status of Opportunities – Pre and Post Risk Assessment



APPENDIX

Sections 1, 2 and 3 of JORC Table 1 – Hemi MRE

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• All drilling and sampling was undertaken in an industry standard manner. • Core samples were collected with a diamond rig drilling mainly NQ2 diameter core. • After logging and photographing, NQ2 drill core was cut in half, with half sent to the laboratory for assay and the other half retained. HQ and PQ core was quartered, with one quarter sent for assay. Mineralised intervals were sampled to geological boundaries on a nominal 1m basis. • Sample weights ranged from 2-4kg. • RC holes were sampled on a 1m basis with samples collected from a cone splitter mounted on the drill rig cyclone. Samples typically ranged in weight from 2.5kg to 3.5kg. • Aircore samples were collected by spear from 1m sample piles and composited over 4m intervals. Samples for selected holes were collected on a 1m basis by spear from 1m sample piles. Sample weights ranges from around 1kg to 3kg. • Commercially prepared certified reference material ("CRM") and coarse blank was inserted at a minimum rate of 2% • Field duplicates were selected on a routine basis to verify the representivity of the sampling methods. • Sample preparation is completed at an independent laboratory where samples are dried, split, crushed and pulverised prior to analysis as described below. • Sample sizes are considered appropriate for the material sampled. • The samples are considered representative and appropriate for this type of drilling. • Diamond core and RC samples are appropriate for use in the Mineral Resource estimate.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Diamond core diameters are - NQ2 (51mm), HQ2 (61mm), PQ (85mm). • Reverse Circulation (RC) holes were drilled with a 5 1/2-inch bit and face sampling hammer. • Aircore holes were drilled with an 83mm diameter blade bit.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Core recovery is measured for each drilling run by the driller and then checked by the company geological team during the mark up and logging process. • RC and aircore samples were visually assessed for recovery. • Samples are considered representative with generally good recovery. Deeper RC and aircore holes encountered water, with some intervals having less than optimal recovery and possible contamination. • No sample bias was observed.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource*	• The entire holes have been geologically logged and core was photographed by company

Criteria	JORC Code explanation	Commentary
	estimation, mining studies and metallurgical studies. • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	geologists, with systematic sampling undertaken based on rock type and alteration observed. • RC and diamond sample results are appropriate for use in a resource estimation. • The aircore results provide a good indication of mineralisation but are not used in resource estimation.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• NQ2 drill core was cut in half, with one half sent to the laboratory for assay and the other half retained. HQ and PQ core was quartered, with one quarter sent for assay. Holes were sampled over mineralised intervals to geological boundaries on a nominal 1m basis. • RC sampling was carried out by a cone splitter on the rig cyclone and drill cuttings were sampled on a 1m basis in bedrock and 4m composite basis in cover. • Aircore samples were collected by spear from 1m sample piles and composited over 4m intervals. Samples for selected holes were collected on a 1m basis by spear from 1m sample piles. • Each sample was dried, split, crushed and pulverised to 85% passing 75µm. • Sample sizes are considered appropriate for the material sampled. • The samples are considered representative and appropriate for this type of drilling. • Core and RC samples are appropriate for use in a Mineral Resource estimate. • Aircore samples are generally of good quality and appropriate for delineation of geochemical trends but were not used in the Mineral Resource estimate.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• The samples were submitted to a commercial independent laboratory in Perth, Australia. • For diamond core and RC samples, Au was analysed by a 50g charge Fire assay fusion technique with an AAS finish. • Aircore samples were analysed for Au using 25g aqua regia extraction with ICPMS finish. • All aircore samples and at least every fifth RC and DD sample were analysed with ALS procedure MS61 which comprises a four-acid digest and reports a 48-element analysis by ICPAES and ICPMS. • The techniques are considered quantitative in nature. • A comprehensive QAQC protocol including the use of CRMs, field duplicates and umpire assays at a second commercial laboratory has confirmed the reliability of the assay method.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• A number of significant intersections were visually field verified by the Competent Person. • Three twin holes were completed. The diamond twins verify grade tenor and mineralisation thickness of RC holes. • Sample results have been merged into the database by the company's database consultants. • Results have been uploaded into the company database, checked and verified. • No adjustments were made to the assay data.

Criteria	JORC Code explanation	Commentary
		• Results are reported on a length weighted basis.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Diamond and RC drill hole collar locations are located by DGPS to an accuracy of +/-10cm. • Aircore hole collar locations are located by DGPS or by handheld GPS to an accuracy of 3m. • Locations are recorded in GDA94 zone 50 projection. • Diagrams and location tables have been provided in numerous releases to ASX. • Topographic control is by detailed airphoto and Differential GPS data. • Down hole surveys were conducted for all RC and DD holes using a north seeking gyro tool with measurements at 10m down hole intervals.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Within the limits of the Mineral Resource, the drill hole spacing varies from 40m by 40m spacing to 80m by 80m spacing. • The extensive drilling programs have demonstrated that the mineralised domains have sufficient continuity in both geology and grade to be considered appropriate for the Mineral Resource and Ore Reserve estimation procedures and classification applied under the 2012 JORC Code. • Samples have been composited to 2m lengths in mineralised lodes using best fit techniques prior to estimation.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• The drilling is approximately perpendicular to the strike of mineralisation. The holes are generally angled at -60° which provides good intersection angles into the mineralisation which ranges from vertical to -45° dip. • The sampling is considered representative of the mineralised zones. • Where drilling is not orthogonal to the dip of mineralised structures, true widths are less than down hole widths.
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected by company personnel and delivered direct to the laboratory via a transport contractor.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• QAQC data has been both internally and externally reviewed.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The entire Hemi Mineral Resource lies within exploration licence E45/3392-I. The tenement is held 100% by Last Crusade Pty Ltd, a wholly owned subsidiary of De Grey Mining Limited. • The Hemi Prospect is approximately 60km SSW of Port Hedland. • The tenements are in good standing as at the time of this report. • There are no known impediments to operating in the area.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No detailed exploration is known to have occurred on the tenement prior to De Grey Mining. Prior to the Hemi discovery, De Grey completed programs of airborne aeromagnetics/radiometrics, surface geochemical sampling and wide spaced aircore and RAB drilling. Limited previous RC drilling was carried out at the Scooby Prospect approximately 2km NE of the Brolga deposit at Hemi.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Hemi discovery comprises a series of gold deposits hosted within predominately diorite to quartz diorite intrusions and sills that have been emplaced within the Mallina Basin. Six main deposits have been delineated within the complex and have been separately estimated and reported. These include Brolga, Aquila, Crow, Diucon, Eagle and Falcon. • Gold mineralisation is associated with localised to massive zones of fractured to brecciated albite, chlorite and carbonate (calcite) altered intrusion with disseminated sulphides and stringers containing pyrite and arsenopyrite with minor occurrences of pyrrhotite, overprinted in places by quartz-sulphide veins that occasionally host visible gold. Sulphide abundance in the mineralised intrusions typically ranges from 2.5% to 10% and there are strong correlations between gold, arsenic, and sulphur.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• All exploration results have previously been communicated

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Not applicable as a Mineral Resource is being reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length,*	• The drill holes are interpreted to be approximately perpendicular to the strike of mineralisation. • Where drilling is not perpendicular to the dip of mineralisation the true widths are less than down hole widths.

Criteria	JORC Code explanation	Commentary
	true width not known').	
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Relevant diagrams have been included in numerous ASX releases.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All drilling used in the Mineral Resource estimate has been accurately located using DGPS for collar locations and gyroscopic downhole directional surveys. • Exploration results are not being reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Extensive metallurgical, groundwater, and geotechnical studies have commenced as part of the economic assessment of the project.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Exploration drilling is ongoing at the project. • Further infill drilling will be conducted prior to commencement of mining. • Refer to diagrams in the body of this and previous ASX releases.

Section 3: Estimation and Reporting of Mineral Resources

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary

Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*
	• *Data validation procedures used.*
		• All drilling data in the Mineral Resource estimate has been generated by DEG since 2019. It has been systematically recorded and stored using industry best practice for data management.
		• The database is hosted and managed by Expedio, using their customised SQL data storage system.
		• Data was geologically logged electronically using the Expedio Ocris Mobile Logger; collar and downhole surveys were also received electronically as were the laboratory analysis results.
		• The SQL server database is configured for optimal validation through constraints, library tables, triggers and stored procedures. Data that fails these rules on import is rejected or quarantined until it is corrected. Some of the automatic triggers on assay import are listed below.
		  ○ CRM results > +/- 3 standard deviations
		  ○ CRM weight > 200g
		  ○ Blank results > 10 x detection limit
		  ○ Blank weight < 400g
		  ○ Grind size < 85% passing 75µm
		• Data extracted from the database were validated visually in Datamine and Seequent Leapfrog software. Also, when loading the data, any errors such as missing values and

Criteria	JORC Code explanation	Commentary
		sample/logging overlaps are highlighted. • In summary the database is of high quality, consisting only of very recent drilling with no significant errors due to data corruption or transcription.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Competent Person visited site on 15 and 16 December 2021, and personally inspected active diamond core drilling and geological logging at the core logging facility. Core recovery and logging was of a very high standard.

Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*
	• *Nature of the data used and of any assumptions made.*
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*
	• *The use of geology in guiding and controlling Mineral Resource estimation.*
	• *The factors affecting continuity both of grade and geology.*
		• The confidence in the underlying geological interpretation is considered to be high and is based on extensive RC and core drilling. The entire project area is overlain by 25 m to 45 m of transported cover so no outcrop is present.
		• Six discrete deposit areas have been defined within the Hemi project. These are: Aquila, Brolga, Crow, Diucon, Eagle and Falcon.
		• Geochemistry and geological logging have been used to assist with identification of lithology, mineralisation and weathering.
		• The deposit consists of broad zones of gold mineralisation within well-defined intrusive lithologies. Gold is associated with pyrite and arsenopyrite with albite, sericite and silica alteration of the host rocks.
		• The controlling lithologies are well defined and lithology boundaries commonly coincide with mineralisation boundaries.
		• The overall dip and dip direction of the intrusives varies between each deposit area:
		  ○ Aquila 80° towards the southeast
		  ○ Brolga 50° to 70° towards the southeast
		  ○ Crow 50° to 80° towards the southeast
		  ○ Diucon 70° to 80° towards the southeast
		  ○ Eagle 70° to 80° towards the southeast
		  ○ Falcon 50° to 70° towards the east.
		• Infill drilling has confirmed geological and grade continuity in most areas of the deposit.
		• The estimation domains were constrained by wireframes constructed in Leapfrog software using an approximate 0.2 ppm Au cut-off grade, with the domain orientation consistent with the geological interpretation.

Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The Hemi Mineral Resource area extends over a north-south strike length of 2,000 m, and an east-west extent of 3,600 m. It has been drilled and interpreted to a maximum vertical interval of 885 m from surface at 65 mRL to -820 mRL.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes*	• Estimation of the mineral resource was by the non-linear geostatistical method Localised Uniform Conditioning (LUC) using Datamine software. The LUC estimation process was as follows: • Drill hole data was selected within mineralised domains for each deposit area and composited to 2 m downhole intervals in Datamine software. • The composited data was imported into Supervisor software for statistical and geostatistical analysis. • Top-caps were applied based on examination of histograms and Au grade distribution analysis.

Criteria	JORC Code explanation	Commentary
	appropriate account of such data. • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	The caps per deposit area ranged from 10 to 18 ppm Au. • Contact analysis of samples within the estimation domains and those outside ('background' domain) showed that hard domain boundaries were suitable. • Variography was performed on capped data transformed to normal scores, and the variogram models were back-transformed to original units. Variography was performed separately for each deposit area. • The variogram models had low to moderate nugget effects (25 to 30% of the total sill), with maximum ranges of ~140 m along strike and ~95 m down dip for all deposit areas. • Estimation (via Ordinary Kriging (OK) – a necessary precursor step for UC) was into a block model that was rotated +50° from the MGA94 grid. The panel block size of 20 mE x 20 mN x 5 mRL is half the average drill spacing in the main well-drilled part of the deposit • A minimum of 8 and maximum of 20 (2 m composite) samples per panel estimate was used, with a search ellipse radius similar to the variogram ranges (160 m x 80-120 m x 30-40 m). • Up to two search passes were used for each estimation domain, with the second pass twice the size of the first pass. The number of samples required was the same for both searches. The second pass was only required for <2% of blocks for all deposit areas. • A locally varying ellipsoid orientation was used to account for the subtle changes in estimation domain orientation along strike and down dip The variogram models did not use locally varying orientations in order to be consistent with the Change of Support correction. • The UC process applies a Change of Support correction (discrete Gaussian model) based on the composite sample distribution and variogram model, conditioned to the Panel grade estimate, to predict the likely grade tonnage distribution at the SMU selectivity. • Localisation of the grades was into Selective Mining Units (SMU) block of 5 mE x 5 mN x 5 mRL (16 SMUs per panel). The SMU size is appropriate given the likely mining method (open-cut) and equipment selection. • To account for the higher grades that had been capped, a localised OK estimate using uncapped grades was made into SMU sized blocks in the immediate area (5 m) of these higher grades. These grades superseded the LUC grades. • Estimates of Au grades were validated against the composited drill hole data by extensive visual checking in cross-section, plan and on screen in 3D, by global (per shoot) comparisons of input data and model, and by semi-local statistical methods (swath plots). All methods showed satisfactory results. • No recovery of by-products is anticipated. • In addition to gold, arsenic, sulphur, calcium and iron in total sulphide were estimated in the model to provide information for metallurgical evaluation. • S, As, Ca and Fe in total sulphide were estimated by ordinary kriging into the panel-sized blocks.

Criteria	JORC Code explanation	Commentary
		• Moderate correlation was determined between Au and S and Au and As. Strong correlation was determined between S and As. No assumptions about correlation were made in the estimate.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Mineral Resource has been reported using the LUC estimate at a cut-off 0.3 ppm Au for mineralisation above 390 m vertical depth (-320 mRL), and the OK estimate at 1.0 ppm Au cut-off below 390 m from surface. • The reporting cut-off parameters were selected based on economic evaluation of the Hemi deposit to DFS level.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• The majority of the Hemi deposit would be mined by open pit extraction. Recent pit optimisation work was undertaken using an AUD $3,000 gold price, with mining costs averaging $9.33 per BCM for ore and $7.88 per BCM for waste and processing costs of $30.01 per tonne for all material types. • The $3,000 pit shells reached a maximum depth of 455 m at Brolga (to the -390 mRL), for Diucon it reached a maximum depth of 475 m (-410 mRL) and an average depth for the other deposit areas of 405 to 425 m (-340 to – 360 mRL). • Therefore the -320 mRL was selected as the level to divide open cut from underground resources. • Higher grade zones below the -320 mRL within the deposit show potential for large scale underground mining. The cut-off grade for the underground resource (1.0 ppm Au) was derived from a simple economic model, assuming the same Au price and processing costs as for the open cut, with an assumed stoping cost of $50 per tonne.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Extensive metallurgical test work has been undertaken at Hemi, with similar mineralogy and metallurgical characteristics noted across all deposits tested thus far. The gold mineralisation is semi-refractory, and a flowsheet combining the conventional processing technologies of crushing, milling, sulphide flotation, concentrate pressure oxidation, and cyanide leaching has been tested thoroughly, and has proven successful in achieving high recoveries. • For transitional and fresh mineralisation, overall gold recoveries of typically 94% have been achieved on samples from Aquila, Brolga, Crow, Diucon, Eagle, and Falcon. • Oxide mineralisation is non-refractory with recovery averaging 96% via conventional cyanide leaching.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage*	• There are no known environmental issues, with a number of operational and closed open cut mines (copper, lithium, iron ore) within 50 km of Hemi, in similar physical geographical settings. • DEG will work to mitigate environmental impacts as a result of any future mining or mineral processing.

Criteria	JORC Code explanation	Commentary
	the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density values applied to the Mineral Resource were based on a substantial number of density determinations on drill core. • The bulk density values were assigned based on oxidation/weathering as follows: ○ Sediment Upper Saprolite 1.7 t/m3 ○ Intrusion Upper Saprolite 1.7 t/m3 ○ Sediment Lower Saprolite 1.9 t/m3 ○ Intrusion Lower Saprolite 1.7 t/m3 ○ Sediment Saprock 2.1 t/m3 ○ Intrusion Saprock 2.15 t/m3 ○ Sediment Fresh with weathering along joints 2.4 to 2.7 t/m3 ○ Intrusion Fresh with weathering along joints 2.6 to 2.7 t/m3 ○ Sediment Fresh (primary sulphide) 2.75 t/m3. ○ Intrusion Fresh (primary sulphide) 2.8 t/m3. • The transported cover material was assigned an assumed density value of 1.7 t/m3.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Mineral Resource estimate is reported in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). • The Hemi Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and geological and grade continuity and kriging metrics of the panel estimates. • The Indicated Mineral Resource has a drill spacing of 40 m x 40 m and where the kriging slope of regression is greater than about 0.7. In a very few instances where mineralisation showed clear continuity into areas of 80 m by 40 m drill hole spacing, the resource was classified as Indicated. • Wireframes were constructed to delineate the Indicated Mineral Resource i.e. the classification was not defined on a block-by-block basis. • The Inferred Mineral Resource has been defined with a drill hole spacing of 80 m by 80 m and with slopes of regression for the panel estimates less than 0.7. • Extrapolation of the mineralisation was generally limited to 60 m along strike and down dip of drill hole intersections. Extrapolation of up to 100 m down dip was used where the strongest mineralisation remained open and untested. • The input data is on a regular drilling grid and has not been concentrated on higher -grade zones. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains.

Criteria	JORC Code explanation	Commentary
		• The classification of the Mineral Resource Estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Cube Consulting have completed an internal peer review of the estimate. • An independent external peer review of the estimate has been completed which found the estimate to be prepared using accepted industry practice with no material issues identified.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The deposit geometry and continuity has been adequately interpreted to reflect the classification applied to the Mineral Resource. • The data quality is excellent, and the drill holes have detailed logs produced by qualified geologists. An independent commercial laboratory has been used for all analyses. • The Mineral Resource statement relates to global estimates of tonnes and grade.

Section 4 JORC Table 1 – Hemi Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	• The Mineral Resource estimate for the Hemi deposit used as a basis for conversion to the Ore Reserve estimate reported here was compiled by Cube Consulting. The resource model was estimated using localized uniform conditioning techniques. • Details of relating to the Resource model used in the estimation of these Ore Reserves are discussed in Section 3 of this Table. • The data included drilling and assay data, geological interpretation, density checks and comparisons to independent check estimates. The June 2023 Hemi Mineral Resource is inclusive of the August 2023 Hemi Ore Reserve.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The Competent Person visited Hemi Project in September 2023.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	• These Ore Reserves are supported by a Definitive Feasibility Study (DFS) including the estimation of a Mineral Resource and Ore Reserve for the Hemi open pits. These Ore Reserves have included all aspects of the DFS study which includes economic analyses based on a mine schedule incorporating only the stated Ore Reserves and the relevant parameters developed within that study.
Cutoff parameters	• *The basis of the cutoff grade(s) or quality parameters applied.*	• A lower block cutoff grade of 0.49 g/t for all oxidation types have been applied in estimating the Ore Reserve. The lower cuts have been estimated using the ore based costs, mining and metallurgical recoveries and net realised revenue inclusive of royalty payments.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.*	• The Resource model which formed the basis for estimation of the Ore Reserve was used in an open pit optimisation process to produce a range of pit shells using operating costs and other inputs. Mining, processing and capital costs were developed on a first principles basis. The resultant optimal shell was then used as a basis for detailed design. • The mining method assumed in the Ore Reserve study is open cut with conventional excavator and truck fleets. The open pits will be developed using a staged designs where appropriate. • Geotechnical recommendations made by independent consultants have been applied in optimisation and incorporated in the detailed open pit designs. • The Mineral Resource Model used for the pit optimisation was an LUC model. This is a recoverable resource model and as such no additional dilution or ore loss factors have been applied. • Minimum mining widths of 60m in cutbacks and average of 30m at pit bottom were applied in the detailed design stages of the mine plan. • No Inferred Mineral Resources are included in the Ore Reserve estimation and reporting process and are therefore not included in any revenue estimates and

Criteria	JORC Code explanation	Commentary
	• *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	are treated as waste in the estimation and reporting of Ore Reserves. • The mine is currently in exploration phase and has plans for adequate infrastructure to support current and future operation.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	• The Ore Reserve will be processed through a crush, grind, flotation, carbon in leach (CIL) processing plant with the inclusion of a pressure oxidation circuit for the flotation concentrate stream, to produce gold doré. The process plant design is extensively covered within the DFS study. • The proposed processing methodology has been well tested at numerous other mining/processing operations and is considered to be robust. • Comprehensive metallurgical test work has been completed on Hemi ore as part of the DFS. A gold recovery factor resulting from a 0.10g/t Au tail residue has been applied throughout the mine planning process. • Deleterious elements were reported in the mine schedules but did not impact on the schedule. • Pilot scale testwork programs have been completed on bulk fresh ore samples from the Brolga (two samples), Aquila-Crow, Falcon, Eagle and Diucon deposits.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	• Environmental studies have been completed for all disciplines to definitive feasibility level. These studies include but are not limited to air quality, noise, visual amenity, ecology, hydrogeology, heritage, traffic, social and economic. • A large presence of water in the cover material has been considered with studies carried out in determining how to best deal with the dewatering of the area to such a level that will allow mining. • No fatal flaws have been identified in any of these environmental studies. These study results along with any further work where necessary have been incorporated into the Environmental Referral Submission under section 38, part IV of the Environmental Protection Act. This has been submitted to the WA Environmental Protection Authority (EPA), who are assessing the project for approval status. • Waste rock characterisation studies have been completed, identifying PAF and NAF waste distribution and are considered representative of the waste expected to be mined at Hemi. PAF is modelled to be less than 5% of total waste volume. Problematic waste will be encapsulated within internal cells of waste rock landform. Further modelling to schedule PAF waste encapsulation is currently underway.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure*	• DFS level project layouts have been completed to include key infrastructure such as waste rock dumps, open pit, haul roads, processing facilities, TSF, offices, workshops etc.

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	can be provided, or accessed.	
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the PFS.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.* • *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	• The majority of the capital costs for the project are accounted for in the processing facility. All capital and operating costs have been estimated to DFS level of confidence. • Mining costs have been developed based on a request for pricing (RFP) conducted with a number of independent mining contractors based on haul profiles, mine designs and completed mine schedules. • Treatment costs applied in the Ore Reserve estimation are based on metallurgical testwork coupled with estimated labour, consumables and power costs to DFS level of confidence, which includes allowances for the reported deleterious elements.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	• Royalties payable to the West Australian State Government and traditional owner have been included in the analysis of the Ore Reserve. • A base gold price of A$2,500/oz has been used in the optimisation of the Hemi Ore Reserve and reporting cutoff grade calculation. Revenue factors within the optimisation process were used to produce a range of nested optimisation shells to assist in the analysis and shell selection for pit design.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	• N/A, there is a transparent quoted derivative market for the sale of gold.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	• The Ore Reserves have been evaluated referencing a detailed financial model prepared on a quarterly basis over the life of mine. Key economic inputs to the financial model include a gold price of $2,700 per ounce of gold and at a discount rate of 5% to estimate the project net present value (**NPV**) and payback period. All operating and capital costs as well as revenue factors were included in the financial model. The estimation methods and capital and operating cost estimates are detailed in the Summary. This process has demonstrated the estimated Ore Reserves have a positive economic value. The project has been tested for sensitivity to key input parameters such as gold price, metallurgical recoveries, and discount rate and found to be robust. • A sensitivity analysis has been conducted and is included in the Summary. The sensitivity analysis was conducted on the financial model inputs including gold price, discount rate, capital cost, operating cost and mined grade. The sensitivity analysis showed that the

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		project was most sensitive to the gold price and least sensitive to capital costs.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	• A Social Impact Assessment was completed as part of the DFS and no fatal flaws were identified. • The Native Title Mining Agreement has been signed in December 2022 with the Kariyarra People which included a Cultural Heritage Management Protocol (CHMP). • De Grey has consulted widely in the Port Hedland and wider Pilbara communities with the relevant stakeholders as part of the DFS.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	• De Grey has not identified any fatal flaws with respect to naturally occurring materials. • No marketing agreements are required as gold doré will be produced on site. • The Project has been referred to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) for assessment as to whether it is a controlled action. This referral has been anticipated as part of the Project schedule.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	• The classification of the Hemi Ore Reserve has been carried out in accordance with the recommendations of the JORC code. It is based on the density of the drilling, estimation methodology, the orebody experience and the mining method to be employed. All of the Probable Ore Reserves reported are derived from Indicated Mineral Resources. • The competent person confirms that the results of the Ore Reserves estimated and reported accurately reflects their view of the deposit. • All of the Probable Ore Reserves reported are derived from Indicated Mineral Resources.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	• An audit has not been undertaken on the Ore reserve estimate as part of the DFS.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*	• Whilst appreciating that reported Ore Reserves are an estimation only and subject to numerous variables common in mining operations, it is the opinion of the Competent Person that there is a reasonable expectation of achieving the reported Ore Reserves commensurate with the Probable classification of the Mineral Resources and level of study supporting the assumptions and modifying factors used.

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	• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	