

# Panton Scoping Study Demonstrates Potential for Long-life, Globally Significant PGM Operation

7 December 2023

- Study leverages off >A\$50m investment into Panton to date, inc. prior feasibility studies, ~45,000m drilling, decline access to orebody & comprehensive bulk metallurgical testwork
- Study demonstrates potential for Panton to be one of few long life, globally significant PGM operations in the western world
- Robust project economics, low capital intensity versus industry benchmarks and strong leverage to PGM price appreciation, with:
  - 1.5Moz PdEq<sup>2</sup> mining inventory from 9.8Mt @ 3.60g/t PGM<sub>3E</sub><sup>1</sup>, 0.25% Ni, 12.6% Cr<sub>2</sub>O<sub>3</sub> (4.77g/t PdEq<sup>2</sup>) for 1.1Moz PGM<sub>3E</sub><sup>1</sup>, 25kt Ni, 1.1Mt Cr<sub>2</sub>O<sub>3</sub> concentrate
  - Initial ~9-year mine life (study's mine plan covers just 26% of the current defined Reef & High Grade Dunite material and only 10% of the overall MRE)
  - PGM production averaging 117,000oz pa from high grade feed of 3.60g/t PGM<sub>3E</sub><sup>1</sup>
  - PdEq<sup>2</sup> production averaging 161,000oz pa (inc. nickel and chromite by-products)
  - Low All-in Sustaining Costs (AISC), averaging US\$789/oz (projected to be in the 2<sup>nd</sup> quartile), thereby providing resilience throughout the metal price cycle
- Conventional flowsheet (crush, grind & flotation), producing high grade PGM & chromite concentrates, analogous to several current South African PGM operations
- Upside potential via resource growth, additional by-product credits (copper, cobalt, rhodium & iridium), & further optimisation of mine design, processing & logistics
- Potential for future Cu-Ni-PGM resources at Eileen Bore Project to be included in the next stages of feasibility work
- Future Metals is planning initiation of a PFS, targeted for completion in Q4 2024

## Cautionary Statement

*The Scoping Study Report ("Scoping Study" or "Study") referred to in this announcement has been undertaken to evaluate the potential development of the Panton PGM-Ni-Cr Project ("Panton" or the "Project"). The Project is 100% owned by Future Metals NL ("Future Metals", "FME" or the "Company"). The Scoping Study comprises a preliminary technical and economic study of the potential viability of the Project. It is based on low accuracy level technical and economic assessments that are not sufficient to support estimation of Ore Reserves. Additional infill drilling, evaluation work and appropriate studies are required before Future Metals will be able to estimate Ore Reserves or provide assurance of an economic development case. **The Scoping Study has been completed to a level of accuracy of +/- 35%.***

*Of the Mineral Resources scheduled for extraction in this Scoping Study's production target, approximately 86% are classified as Indicated and 14% as Inferred over the first five years and 50% are classified as Indicated and 50% as Inferred over the evaluation period. There is a low level of geological confidence associated with Inferred Mineral Resources, and there can be no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target will be realised.*

*Under prior owners, the Project has previously had a JORC (2012) Mineral Resource Estimate ("MRE") with the majority of that estimate in the Measured & Indicated categories. This supported a Bankable Feasibility Study which was completed on the Project. Additional conservatism has been applied when estimating Panton's current JORC MRE, however, the Company believes that this is relevant information when assessing the results and confidence levels applied in this Scoping Study.*

*Future Metals notes that the majority of the upfront capital required is projected to be repaid in the years where Indicated Resources comprise a majority of the production schedule. The Company believes that it has a reasonable basis for providing such forward-looking statements and the forecast financial information based on material assumptions outlined in this announcement. One of the key assumptions is that funding for the Project will be available when required. While the Company considers all of the material assumptions to be based on reasonable grounds, there can be no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.*

*To achieve the range of outcomes indicated in the Scoping Study, funding in the order of approximately A\$267m will likely be required in pre-production capital expenditure. There is no certainty that the Company will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to, or otherwise affect, the value of Future Metals' shares. It is also possible that Future Metals could pursue other value realisation strategies such as a sale, partial sale or joint venture of the Project. If it does, this could materially reduce the Company's proportionate ownership of the Project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.*

## Study Highlights

- **Study demonstrates the potential for Panton to be one of few significant primary PGM operations in the western world.** The Study supports a high-grade, **initial 9-year operation** processing both Reef and High-Grade Dunite material through a conventional crush, grind and flotation flow sheet, producing:

Avg. Production	PGM (Oz pa)	Chromite Conc. (Tpa)	Nickel (Tpa)	PdEq <sup>2</sup> (Oz pa)
<b>1,250ktpa</b>	<b>117,000</b>	<b>134,000</b>	<b>1,200</b>	<b>161,000</b>

- **Robust economics** with Panton demonstrating strong financial metrics that reflect the **high-grade and low capital intensity** of the Project

Valuation (1,250kt)	Pre-Production Capex (A\$m)	NPV <sub>8%</sub> (A\$m) (pre / post tax)	IRR (%) (pre / post tax)
<b>Base Case</b>	<b>267</b>	<b>250 / 153</b>	<b>26% / 21%</b>
<b>PGM 5yr Avg Case</b>		<b>477 / 311</b>	<b>39% / 31%</b>

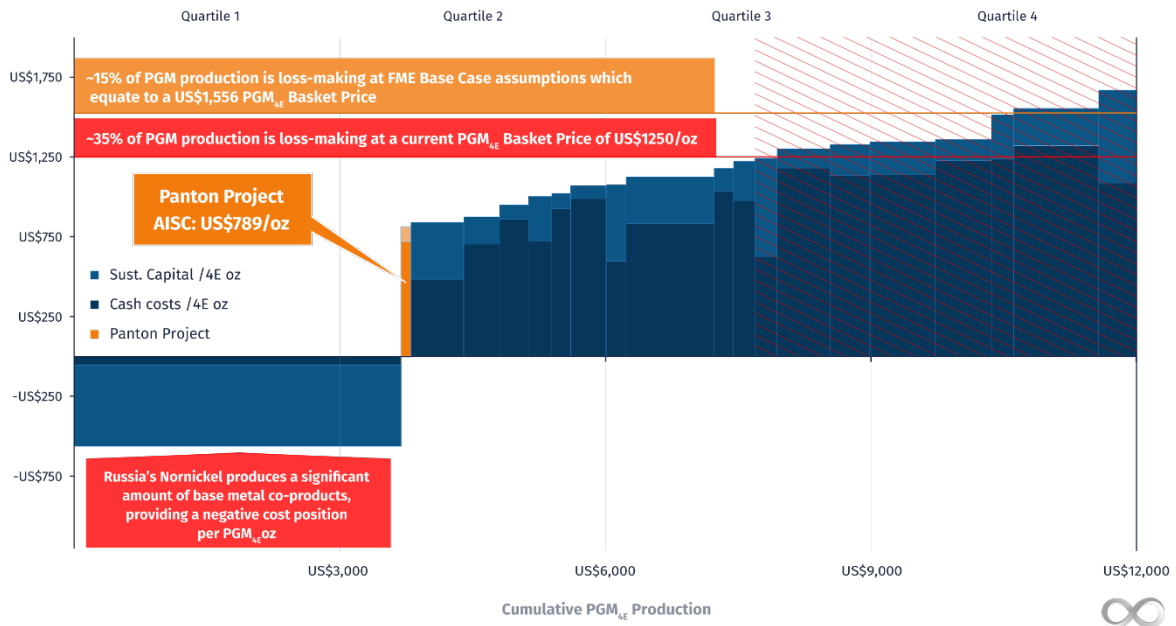
  

Prices	PGM Basket				By-product credits		
	Platinum (US\$/oz)	Palladium (US\$/oz)	Gold (US\$/oz)	Rhodium* (US\$/oz)	Basket Price (US\$/oz)	Nickel (US\$/t)	Chromite (US\$/t)
<b>Base Case</b>	1,285	1,400	2,000	4,450	<b>1,556</b>	<b>20,000</b>	<b>282</b>
<b>PGM 5yr Avg Case</b>	1,040	2,115	1,870	12,450	<b>2,200</b>	<b>20,000</b>	<b>282</b>

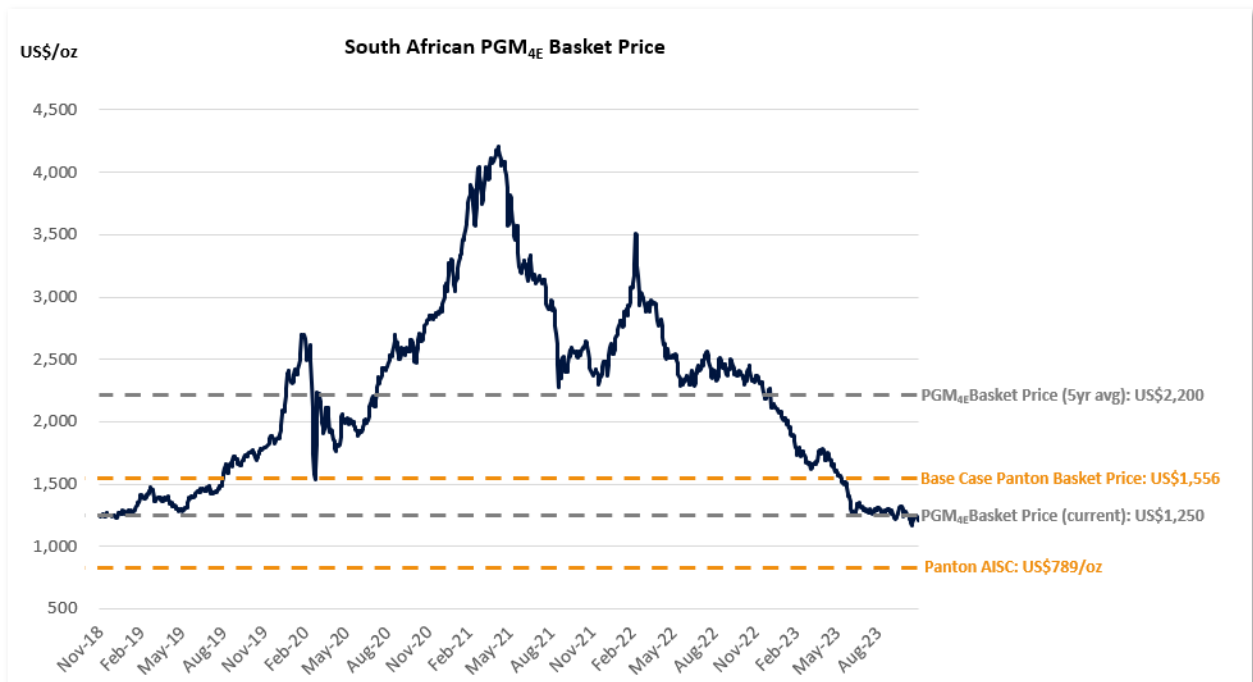
\*Note Rh not included in Panton Scoping Study economic evaluation. Included for comparison to South African PGM Basket Price only

- **Panton Base Case long term PGM pricing aligns with the ~85<sup>th</sup> percentile of the cost curve** (see Figure One), with the current South African PGM<sub>4E</sub> basket price at an unsustainable ~65<sup>th</sup> percentile (i.e. ~35% of current global operations losing money), near all-time lows
- **Panton's estimated AISC of US\$789/oz (projected 2<sup>nd</sup> quartile)** provides the opportunity for the planned future operations to generate robust operating margins in all phases of the PGM price cycle (see Figures One & Two)
- **Study includes just 26% of Reef & High Grade Dunite material** – mine life extension and valuation uplift to be targeted via progressive uplift in Resource categorisation
  - Average annual operating **free cash flow A\$72m – clear value-add of mine life extensions**
- **Panton has the opportunity to achieve an accelerated pathway to production, driven by:**
  - Project's location on granted Mining Leases
  - >A\$50m invested in the Project to date including an established portal and decline, comprehensive metallurgical test work, >45,000m of drilling & prior environmental studies
  - Strong relationships with local stakeholders including the Traditional Owners
- **Panton is optimally located, with good access to established infrastructure:**
  - East Kimberley region of Western Australia, a top-tier mining and investment jurisdiction
  - ~1km from a sealed highway utilised by other mining operations
  - ~70km from a sealed airstrip for employee and contractor transportation
  - 300km from deep-water port at Wyndham, with easy access into key potential markets

## Global PGM producer net total cash costs plus SIB per 4E oz, CY2022 US\$/4E oz



**Figure One | PGM Industry's Cost Curve and Pantan Project's positioning.** Source SFA (Oxford)  
 \*Further details for the industry cost curve analysis are shown under PGM Industry Cost Curve Position section in the body of this announcement



**Figure Two | South African PGM<sub>4E</sub> Basket Price.** Source: Bloomberg & Company estimates.  
 \*The PGM<sub>4E</sub> basket price is calculated based on the weightings of Pt, Pd, Au and Rh production for the South African PGM industry. All other metals production is considered a by-product and credited towards an operations' cost base

- **Significant upside potential for Panton over and above the Scoping Study outcomes from:**
  - The Panton orebody is open at depth and interpreted to have improving thicknesses and grades; further drilling may support mine life extensions
  - Inclusion of other payable metals including rhodium, iridium, copper and cobalt
  - Resource delineation and inclusion of processing feed from nearby projects such as Eileen Bore Project or other discoveries within Future Metals' 176km<sup>2</sup> exploration acreage
  - Pricing upside associated with 'Western premiums' for scarce and critical resources located in Australia supporting supply chain development outside of China, Russia and South Africa
  - Expansion potential from the significant near-surface Bulk Dunite mineralisation which is not included within this Scoping Study

**Managing Director Jardee Kininmonth commented:**

*"We are very pleased that the Panton Scoping Study demonstrates robust economics for a globally significant PGM-Ni-Chromite Project.*

*Future Metals' team has capitalised on the significant bank of prior work completed on the Project and its superior grades to develop a conventional flow sheet producing saleable PGM and chromite concentrates at a meaningful scale in a global context. Coupled with the fact that Panton is one of the only near-term development prospects for PGM supply outside of Russia and South Africa, the Company is in a tremendous position to grow value through 2024 and beyond.*

*The Scoping Study shows a robust Project which can withstand downturns in the PGM price cycle and provide significant leverage to upswings in prices too. The Company plans to progress Panton swiftly through the various feasibility stages in order to be as production-ready as possible during the next upswing."*

This announcement has been approved for release by the Board of Future Metals NL.

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## Introduction

Future Metals owns 100% of the Panton PGM-Ni-Cr deposit (“Panton” or the “Project”) in the eastern Kimberley region of Western Australia, a tier one mining jurisdiction. The Project is located on three granted mining licenses 70km north of Halls Creek and 60km south of the operating Savannah Nickel Mine owned by Panoramic Resources Ltd.

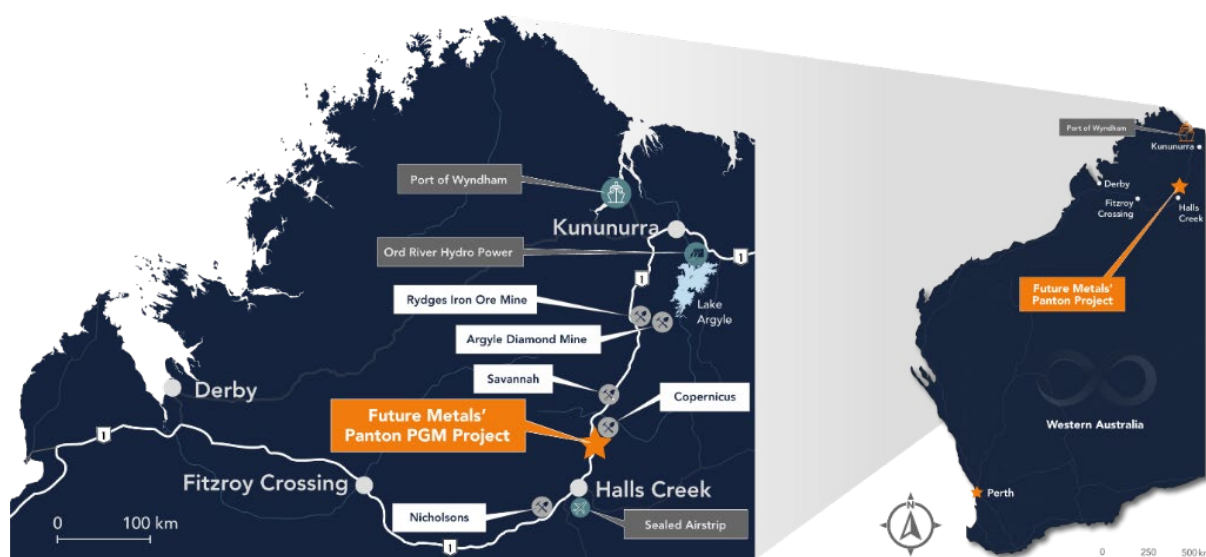
The Project is well situated for future planned operations, with good access to roads, a deep-water port at Wyndham, sealed airstrips and local populations at the nearby towns of Halls Creek and Kununurra.

The Project is located within the traditional lands of the Malarngowem, and the tenure sits within the Alice Downs Pastoral Station.

PGM-Ni-Cr mineralisation occurs within a layered, differentiated mafic-ultramafic intrusion referred to as the Panton intrusive which is a 9km long and 3km wide and 1.7km thick south-west plunging synclinal intrusion. PGM and Cr mineralisation is hosted within a series of stratiform chromite reefs as well as a surrounding zone of mineralised dunite within the ultramafic package.

Panton is the highest grade PGM deposit in Australia, with mineralisation defined across three components within a JORC (2012) Mineral Resource Estimate; the Reef, the High Grade Dunite and the Bulk Dunite. The High Grade Dunite is at the contact and runs parallel to the Reef throughout the entire deposit. These two components of the Resource are the focus for the Scoping Study and planned future operations.

Future Metals plans to produce both a high-grade PGM concentrate, and a chromite concentrate from the Panton deposit. These concentrates will be trucked via sealed public roads to Wyndham for export to customers globally.



**Figure Three | Panton PGM-Ni-Cr Project's Location**

## Key Study Outcomes and Assumptions

### Physicals Assumptions

The Study has been compiled by the Company based on a series of workstreams undertaken by external consultants and has examined two development scenarios, a 1,250ktpa Case and 850ktpa Case, with the higher production scenario determined to be optimal.

Planned operations involve the mining of small open pits in the initial years of construction and operation, followed by underground mining operations to support a concentrator utilising a crush, grind and flotation flow sheet to produce a PGM concentrate and a chromite concentrate.

The primary difference between the two alternative cases assessed is the processing throughput rates, and the resultant mining rates and pre-production capital required. Outputs for the 850ktpa Case are set out in Chapter 11 of the Panton Scoping Study.

**Table One | Operating Assumptions**

Metric	Unit	Scoping Study Outcome
<b>Mining Physicals</b>		
<b>Underground Mining</b>		
Total Lateral Development	m	84,056
Total Vertical Development	m	4,071
Total Waste	kt	2,254
Total Reef Ore	kt	3,513
Reef Grade - PGM <sub>3E</sub> <sup>1</sup> (LOM Avg)	g/t	6.84
Reef Grade – PdEq <sup>2</sup> (LOM Avg)	g/t	8.96
Total Dunite Ore	kt	5,365
Dunite Grade - PGM <sub>3E</sub> <sup>1</sup> (LOM Avg)	g/t	1.61
Dunite Grade – PdEq <sup>2</sup> (LOM Avg)	g/t	2.19
Years of Underground Mining	yrs	8.5
<b>Open Pit Mining</b>		
Total Waste	kt	11,648
Strip Ratio	W:O	12.2
Total Reef Ore	kt	273
Reef Grade - PGM <sub>3E</sub> <sup>1</sup> (LOM Avg)	g/t	6.23
Reef Grade – PdEq <sup>2</sup> (LOM Avg)	g/t	8.16
Total Dunite Ore	kt	679
Dunite Grade - PGM <sub>3E</sub> <sup>1</sup> (LOM Avg)	g/t	1.52
Dunite Grade – PdEq <sup>2</sup> (LOM Avg)	g/t	2.09
Years of Open Pit Mining	yrs	2.0
<b>Processing Physicals</b>		
Total Indicated Ore Processed	kt	4,888 (50%)
Total Inferred Ore Processed	kt	4,942 (50%)
Total Ore Processed	kt	9,830
<b>Processing Years (LOM)</b>	<b>years</b>	<b>8.5</b>
<b>PGM<sub>3E</sub><sup>1</sup> Grade (LOM Avg)</b>	<b>g/t</b>	<b>3.60</b>
Nickel Grade (LOM Avg)	%	0.25%
Chromite Grade (LOM Avg)	%	12.6%
<b>PdEq<sup>2</sup> Grade (LOM Avg)</b>	<b>g/t</b>	<b>4.77</b>
Recovery - Pt (LOM Avg)	%	81%
Recovery - Pd (LOM Avg)	%	92%
Recovery - Au (LOM Avg)	%	95%
Recovery - Ni (LOM Avg)	%	40%
Recovery – Cr <sub>2</sub> O <sub>3</sub> (LOM Avg)	%	73%
Total PGM <sub>3E</sub> Concentrate Produced	kt	379
PGM <sub>3E</sub> <sup>1</sup> Concentrate Grade (LOM Avg)	g/t	81

Metric	Unit	Scoping Study Outcome
Nickel (in PGM <sub>3E</sub> Concentrate) Grade (LOM Avg)	%	2.7%
<b>Summary of Recovered Metal</b>		
Recovered PGM <sub>3E</sub> <sup>1</sup> in Concentrate (LOM Avg)	<i>oz pa</i>	<b>117,000</b>
Recovered Nickel in Concentrate (LOM Avg)	<i>tpa</i>	<b>1,200</b>
Saleable Chromite Concentrate (LOM Avg)	<i>tpa</i>	<b>134,000</b>
Recovered PdEq <sup>2</sup> (LOM Avg)	<i>oz pa</i>	<b>161,000</b>

## Financial Assumptions

The Study utilised the assumptions set out in Table Two. The Company concluded that it has a reasonable basis for using these assumptions and providing the forecast financial information and production targets included in this announcement. The Company is satisfied that the financial viability of the Project is not dependent on the inclusion of Inferred Resources.

The Company has utilised a long term Base Case PGM Basket Price (Pt, Pd, Au, Rh) assumption that is modelled at approximately the 85<sup>th</sup> percentile of the PGM<sub>4E</sub> cost curve, i.e. it assumes a long term price where ~15% of operations are loss making. Price assumptions for platinum, palladium and nickel are also supported by estimates from a range of market analysts. The Company has utilised spot prices for gold and chromite concentrate (40-42% Cr<sub>2</sub>O<sub>3</sub>, CIF South Africa). The Company has also included a financial evaluation utilising the historical 5-year average PGM prices.

The project has been modelled on an unlevered basis on 100% ownership terms. NPV<sub>8%</sub> and IRR are modelled from the start of project construction. Costs incurred to reach a Final Investment Decision ("FID") are not included in the pre-production capital estimate. The capital payback period is assumed to be measured from the commencement of production.

Capital costs are based on current engineering databases and direct quotes from equipment manufacturers, as well as estimates based on recent actual pricing from similar WA mining operations. They include all pre-production site, processing plant, tailings dam, mine development and initial open pit mining costs. They also include sustaining capital post-production.

Operating costs are derived from a number of sources including quotes supplied by vendors, consultants' databases and estimates based on similar WA mining operations.

The Company's financial evaluation outputs and key project metrics are set out on a real, unlevered basis.

**Table Two | Financial Assumptions**

		Base Case	PGM 5-year Avg Case
<b>Commodity prices (LOM avg.)</b>			
Pt	<i>US\$/oz</i>	1,285	1,040
Pd	<i>US\$/oz</i>	1,400	2,115
Au	<i>US\$/oz</i>	2,000	1,870
Rh*	<i>US\$/oz</i>	4,450	12,450
<b>PGM<sub>4E</sub> Basket Price</b>	<b><i>US\$/oz</i></b>	<b>1,556</b>	<b>2,200</b>
Ni	<i>US\$/t</i>	20,000	20,000
Cr <sub>2</sub> O <sub>3</sub> (40-42% CIF South Africa)	<i>US\$/t</i>	282	282
<b>Financial</b>			
WACC (real)	%		8%
Exchange rate	<i>A\$/US\$</i>		0.65
<b>Payability</b>			



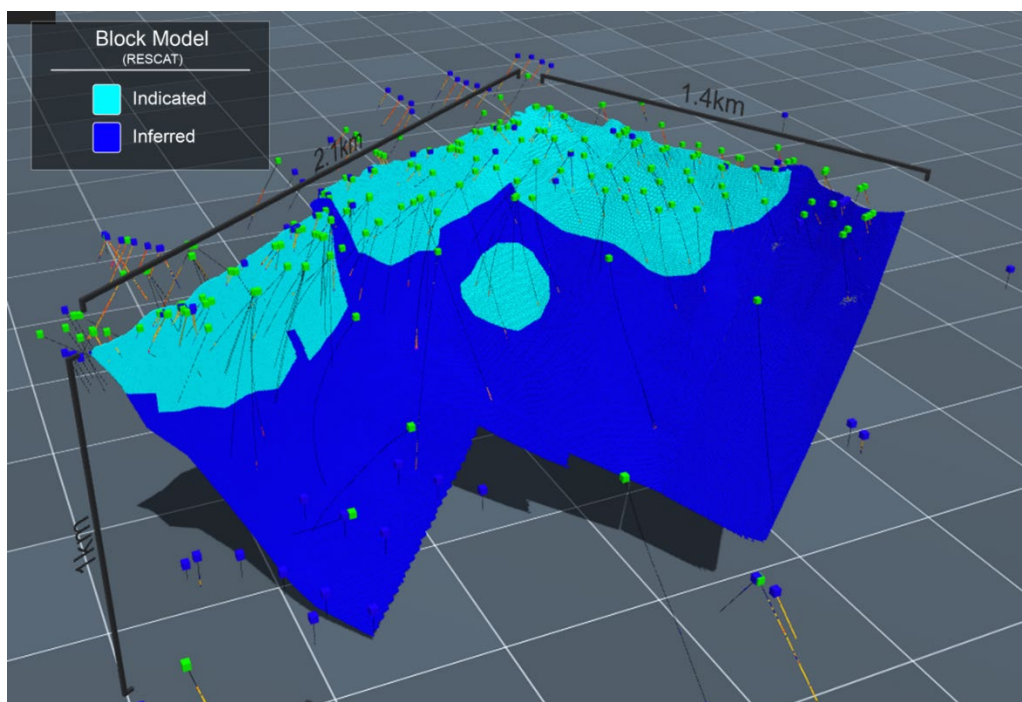
		Base Case	PGM 5-year Avg Case
Pd payability	%	92	
Pt payability	%	92	
Au payability	%	80	
Ni payability	%	55	
Cr <sub>2</sub> O <sub>3</sub> payability	%	95	
Pd-Au payability (tails product)	%	98	
<b>Pre-Production Capital Estimates</b>			
Pre-Production Open Pit Mining	A\$m	21	
Pre-Production Underground Mining	A\$m	-	
Processing Plant	A\$m	146	
Non-Process Infrastructure	A\$m	34	
Indirects	A\$m	33	
Contingency	A\$m	32	
<b>Total Pre-Production Capital</b>	<b>A\$m</b>	<b>267</b>	
Sustaining Capital (LOM avg.)	A\$m	17	
<b>Operating Expenditure Estimates</b>			
Open Pit Mining	A\$/t processed	26.7	
Underground Mining	A\$/t processed	97.4	
Processing	A\$/t processed	37.6	
G&A	A\$/t processed	5.0	
Realisation Costs (Logistics, TC/RCs)	A\$/t processed	20.6	
<b>Financial Outcomes</b>			
NPV <sub>8%</sub> (pre-tax)	A\$m	<b>250</b>	<b>477</b>
NPV <sub>8%</sub> (post-tax)	A\$m	<b>153</b>	<b>311</b>
IRR (pre-tax)	%	<b>26%</b>	<b>39%</b>
IRR (post-tax)	%	<b>21%</b>	<b>31%</b>
Payback Period	Years	<b>4.0</b>	<b>3.2</b>

\*Note Rh not included in Panton Scoping Study economic evaluation. Included for comparison to South African PGM Basket Price only

## Production Target

The focus of the Study is the Reef-style mineralisation and the mineralised High Grade Dunite which sits predominantly in the footwall of the Reef. The deposit is laterally and vertically extensive, and mineralisation is demonstrably continuous across its extent. The shallower portions, which the Study envisages to be mined initially, have been more densely drilled and therefore have been categorised as Indicated resources. The spacing of drillholes is broader at depth (see Figure Four), and while this deeper drilling demonstrates the continuity of the Reef and High Grade Dunite mineralisation, there are lower levels of geological confidence in the grades and widths of the mineralisation in these areas. Given this, the deeper portion of the deposit has been classified as Inferred. The Company intends to complete a review of the Resource in conjunction with the Study mine planning to define the areas which require further drilling in order to upgrade them from Inferred to Indicated. As part of the Study, the Company has included \$3m per annum from Year 5 for infill drilling costs.



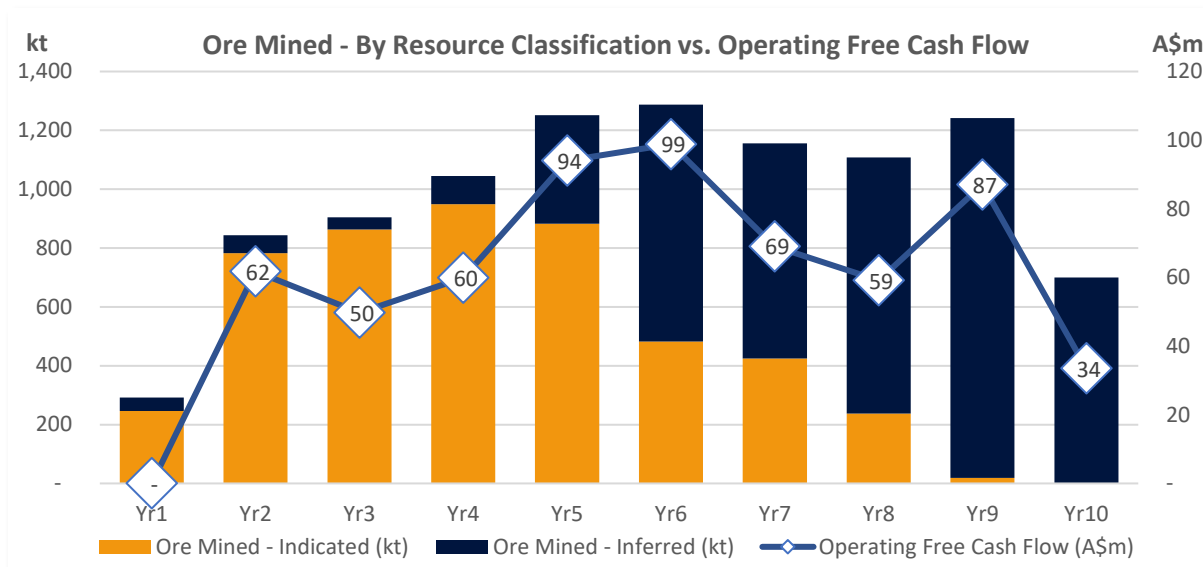


**Figure Four | Isometric view of high-grade Panton with drill traces and resource blocks coloured by Resource classification**

Under prior owners, the Project has previously had a JORC (2012) MRE with the majority of that estimate falling in the Measured and Indicated categories. This supported a Bankable Feasibility Study which was completed on the Project in 2003 and updated in 2012. A significant component of Panton’s current JORC MRE has been classified as Indicated and, the Company believes that this is relevant information when assessing the results and confidence levels applied in the Study.

Total payable metal over the life of the Project is forecast to be approximately 1,210koz of PdEq<sup>2</sup> (911koz PGM<sub>3E</sub><sup>1</sup>, 5kt nickel and 1,084kt chromite concentrate).

Annual numbers with the breakdown of Indicated and Inferred Resources for mined ore are shown in Figure Five. Indicated Resources comprise 86% of the total material scheduled for extraction in the first 5 years of the production target outlined in the Study. Over the life of mine, Indicated material comprises 50% of the Study’s production target. The Study demonstrates that the pre-production capital for the Project is forecast to be repaid in Year 5 when Indicated material comprises the majority of the mine plan.



**Figure Five | Ore Mined – by Resource Classification vs. Operating Free Cash Flow**

The mine plan only includes 26% of material from the combined MRE for the Reef and High Grade Dunite. There is significant upside potential for the Project from improving the geological confidence of the Inferred mineralisation for its inclusion of additional material into the mine plan. Figure Five shows the forecast annual free cash flows of the Project. As an indication of the potential upside associated with mine life extensions, average annual free cash flows during the years of operation are A\$72m.

## Sensitivity Analysis

The Project's NPV<sub>8%</sub> and IRR are most sensitive to changes in PGM<sub>3E</sub><sup>1</sup> prices, operating costs and exchange rates, as shown in Figure Five.

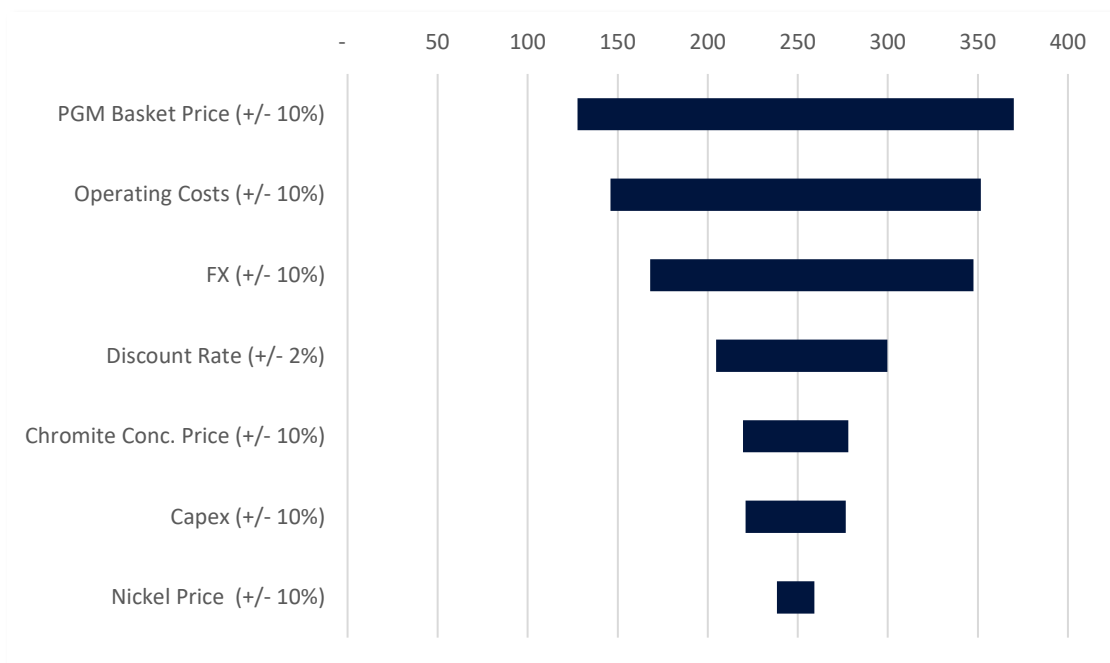


Figure Five | Project NPV<sub>8%</sub> (pre-tax) Analysis

Table Three | Scenario Analysis - PGM<sub>3E</sub> Price Assumptions

			Base Case		
Pt Price (US\$/oz)	1,085	1,185	1,285	1,385	1,485
Pd Price (US\$/oz)	1,200	1,300	1,400	1,500	1,600
Gold Price (US\$/oz)	1,800	1,900	2,000	2,100	2,200
Rhodium Price (US\$/oz)*	4,450	4,450	4,450	4,450	4,450
<b>Basket PGM<sub>4E</sub> Price (US\$/oz)</b>	<b>1,370</b>	<b>1,463</b>	<b>1,556</b>	<b>1,649</b>	<b>1,743</b>
<b>Pre-tax NPV<sub>8%</sub> (A\$m)</b>	78	164	250	336	422
<b>Pre-tax IRR (%)</b>	14%	20%	26%	31%	37%
<b>Payback Period</b>	5.0	4.4	4.0	3.7	3.4
<b>Annual Operating CF (A\$m)</b>	69	80	91	101	112
<b>LOM Operating CF (A\$m)</b>	588	679	771	862	953
<b>LOM FCF (A\$m)</b>	164	255	346	437	529
<b>Annual Operating FCF (A\$m)**</b>	51	61	72	83	94

\*Note Rh is not included in the Study's economic evaluation. Included for comparison to South African PGM operations only.

\*\*Operating FCF refers to free cash flow excluding pre-production capital

## Project's Positioning

The Study highlights the Project as being a potentially globally significant producer of PGMs and chromite. Panton also represents one of the only near-term development PGM projects outside of Russia and South Africa. Additionally, the Study demonstrates that Panton has a lower capital intensity than other similar PGM projects in the study phase, given its higher PGM grade.

### PGM Market Dynamics

The supply of primary PGM production is currently dominated by South African and Russian operations. Such operations supply >80% of PGM<sub>4E</sub> (Pd, Pt, Au & Rh) production (based on actual 2022 figures). Both of these countries are subject to material investment and operating risks:

- Russia is currently subject to international sanctions which has deterred Western investment into its mining industry, complicated the sourcing of new and sustaining mining equipment for existing operations and caused Western customers to seek alternative sources for metals such as PGMs.
- South Africa produced over 71% of primary platinum supply and 37% of primary palladium supply in 2022. Many of the operations in South Africa have operated for several decades, leading to deep mines and aging infrastructure which ultimately increases operating costs and sustaining capital. These issues are amplified by the chronic power availability issues in the country.

South African deposits are also relatively high in rhodium, with the recent profitability of many operations being driven by very strong rhodium prices, which has subsequently declined (2021: Rh price ~US\$29,000/oz vs 2023: Rh price ~US\$4,450/oz). This price decline, coupled with significant cost base inflation has the potential to lead to mine closures in the near to medium term.

### PGM Industry Cost Curve Position

The Study demonstrates that the proposed operation has the potential to be a low-cost producer of PGMs, with strong resilience for future operations throughout the PGM price cycle.

Figure One shows that at the current PGM<sub>4E</sub> basket price of ~US\$1,250/oz approximately 35% of existing PGM production is loss-making. This creates potential for a significant amount of supply to cease in the near to medium term unless prices increase.

Panton's cash costs net of by-product credits and AISC of US\$678/oz and US\$789/oz respectively demonstrate that if the Project was currently producing it would be towards the middle of the 2<sup>nd</sup> quartile of PGM production, thereby ensuring resilient margins in a depressed price environment and making for an economically robust project capable of withstanding sustained downturns in PGM prices.

Further details on the calculation methodology for the Company's stated cash costs, AISC and PGM industry cost curve are set out in Chapter 10 of the Study.

## Study Stage PGM Projects ex-South Africa and Russia

Table Four shows how Panton compares to two other study-stage PGM projects outside of South Africa and Russia. In contrast to other developers, Panton has a superior grade and materially lower capital requirements.

**Table Four | PGM Project Comparisons (ex-South Africa & Russia)**

Project	Owner	Location	Upfront Pre-Production Capital (A\$m)	PGM <sub>3E</sub> <sup>1</sup> Grade (g/t)	Life of Mine (Years)	PGM <sub>3E</sub> <sup>1</sup> Production (Koz, LOM Avg)	Co-Product Production (LOM Avg)
<b>Panton</b>	Future Metals	Western Australia	267	3.60	8.5	117	1kt nickel 134kt chromite concentrate
<b>Gonneville (15Mt)</b>	Chalice Mining	Western Australia	1,600	0.95	19	280	9kt nickel 10kt copper 0.8kt cobalt
<b>Marathon</b>	Generation Mining	Ontario, Canada	1,243 <sup>3</sup>	0.90	12.5	216	9kt copper 248koz silver

\*See Appendix Two for source details

<sup>3</sup> Pre-production capital estimate of C\$1,110. AUD:CAD exchange rate of 0.89 applied

## Project Configuration

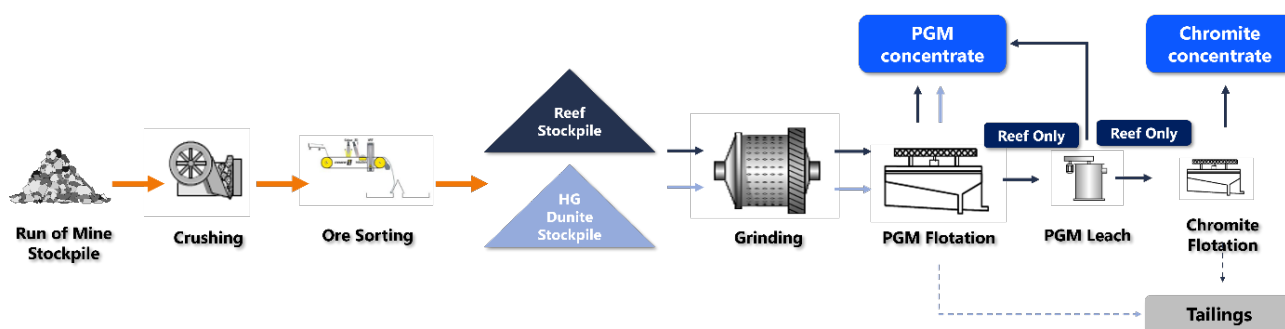
Initial open pit mining will be undertaken in parallel with construction of the processing plant. Open pit mining will continue into the second year of operations, providing the initial processing feed for the processing plant. Portal and decline development will begin within Year 2 and material from underground mining will comprise the majority of processing feed from Year 3 onwards.

Panton's processing flowsheet will produce a PGM concentrate with payable by-products and a chromite concentrate.

Mined material will report to a crusher, followed by ore sorting to separate Reef from High Grade Dunite. Each of these feed types will then report to their own processing train. The unit operations for both are the same to produce a PGM concentrate; two-stage grinding followed by flotation.

The Reef flow sheet will also include a Resin-in-Leach leaching circuit to produce a high-grade PGM product for direct sale to refiners or for blending with the PGM concentrate produced from flotation. The Reef flow sheet also includes a flotation circuit to produce a chromite concentrate.

Figure Seven shows the summary flowsheet for the Panton Project.



**Figure Seven | Panton Scoping Study Flowsheet (summarised)**

Power will be supplied from a gas-fired power plant on site utilising trucked liquefied natural gas with variable renewable energy from a solar panel installation.

Water will be supplied from a borefield located within the existing Mining License area.

The Project is located ~1km from a sealed highway which runs to the deep-water port at Wyndham approximately 300km to the north. Multiple third party operations export their products out of the port. A sealed airstrip is located at Halls Creek, ~70km to the south of the Project along a sealed highway.

It is envisaged that the proposed workforce at Panton would be predominantly fly-in, fly-out and would travel to and from Halls Creek via Broome and onto Perth (or elsewhere).

## Upside Opportunities

The Study underpins a compelling investment case for progressing the Project, and the Company sees significant further upside opportunities as set out below:

- **Improved geological confidence of existing Resource:** The Study only includes 26% of the Reef and High Grade Dunite MRE due to reporting constraints in including Inferred resources. Average annual free cash flows of A\$72m in the Study demonstrate the significant upside in increasing mine life through the inclusion of existing Resources.
- **Resource growth:** The Panton orebody is open at depth and interpreted to have improving thicknesses and grades; further drilling may support mine life extensions beyond the currently modelled life of mine.
- **Additional payable metals:** The Panton deposit contains metals either not included in the MRE or not assumed to be payable. Additional work in the PFS stage may support the inclusion of other payable metals including rhodium, iridium, copper and cobalt.
- **Expansion potential:** The Study does not include the near-surface Bulk Dunite mineralisation. This component of the MRE comprises 55.7Mt @ 1.2g/t PdEq<sup>4</sup>, with future metallurgical studies may support a significantly expanded operation.
- **Regional discoveries:** The Company has recently expanded its exploration position around the Panton Project. Additional nearby discoveries will potentially further enhance the Project's economics through shared surface and processing infrastructure. Future Metals' Eileen Bore Project is located ~15km to the east of Panton and historic drilling indicates the potential to quickly establish a resource estimate, progress metallurgical understanding and include it in the overall project development plan.
- **Western price premiums:** Pricing upside associated with being one of the few western PGM & chromite projects outside of China, Russia and South Africa. The Company will establish the Project's competitiveness on a carbon intensity basis during the planned PFS, however given the grade, and intended power source the Company is currently of the view that the Project will be substantially less carbon intensive than many existing projects.

<sup>4</sup> MRE PdEq calculation details provided in Appendix One of the Study

## Funding Strategy

Estimated pre-production funding of A\$267m is required to achieve the range of outcomes indicated in the Study. The Company is of the view that there is a reasonable basis to believe that the requisite funding amount for the Project will be available when required. The grounds on which this reasonable basis is established include:

- The Project has strong technical and economic fundamentals which provide an attractive return on capital and generate robust cashflows under a range of commodity price assumptions, even at currently depressed spot prices. This provides a strong platform for attracting potential equity, debt and offtake funding.
- The Project is located in Western Australia, a top tier mining and investment jurisdiction with a stable political and regulatory environment. This increases attractiveness for potential financiers given the reduced level of sovereign, legal, operational and financial risks.
- The Project is the highest grade PGM & chromite deposit in Australia, and one of the highest grade undeveloped PGM projects in the world. PGM supply is currently heavily concentrated in Russia and South Africa. The criticality of PGMs to multiple decarbonisation technologies, the significant risk of negative supply shocks, and the Project's location in a top tier western mining jurisdiction are expected to drive significant interest from a range of potential pools of capital. This includes potential non-dilutive government funding sources available for critical minerals projects in Western jurisdictions.
- The Company continues to engage with potential strategic partners who are interested in the Project in light of the reasons stated above. The Company will progress these discussions which may ultimately lead to a partnership with a larger company with improved access to capital.
- Future Metals' board and management team have a strong track record of raising equity and debt funds for development and operating projects.

There can be no certainty that the Company will be able to source funding as and when required. Typical project development financing would involve a combination of debt and equity. It is possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares.

## External Relations and Regional Benefits

The Study shows that Panton will be a significant operation in the East Kimberley region of Western Australia, stemming from which there will be substantial social and economic benefits.

The Company has had positive engagement with the Traditional Owners of the Project area and will continue to engage with them, and the broader East Kimberley community to ensure that the future development of the Project provides a positive contribution to the region.

During construction the Project would provide approximately 150 jobs, with steady-state operations requiring 215 jobs for ~9 years. The Company is committed to prioritising indigenous employment and contracting services to support its operations.

The Study sets out a high-grade, predominantly underground project with a relatively small surface footprint. The Company's current exploration practices involve minimising land disturbance where possible and it will continue to do so as it advances the Project. The Company is committed to being a strong environmental steward in the areas in which it operates and will continue to engage positively with stakeholders to ensure that the environmental impact of its activities and operations are minimised.

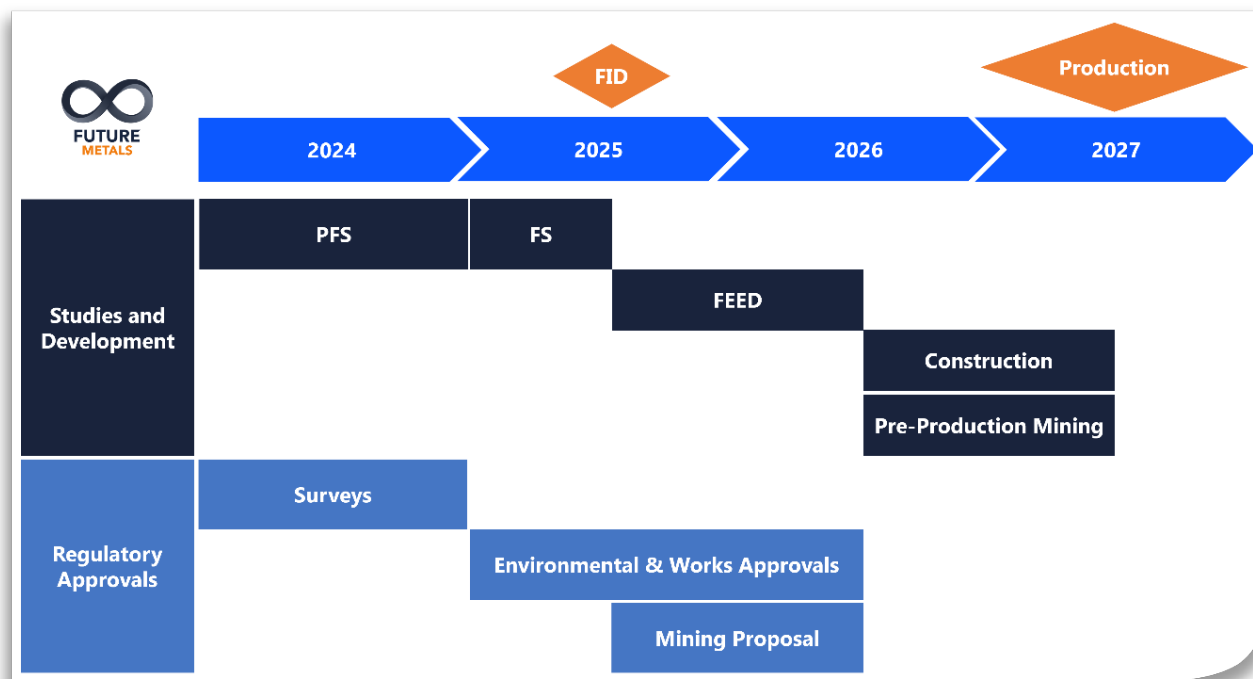


## Forward Plan

The Study provides support that Panton is a commercially viable project and accordingly, the Company now plans to commence a Pre-Feasibility Study (“PFS”) to further de-risk the Project and finalise a go-forward development case.

The Company will, in particular, seek to further optimise the processing flowsheet, undertake metallurgical variability testing, progress offtake discussions and improve the geological confidence of the MRE. Additionally, the Company will begin preparing the Project for regulatory approvals processes.

The Company is currently targeting completion of a PFS in Q4 2024.



**Figure Eight | Panton Forward Plan and Development Timeline**

## Study Consultants

The Company completed the Panton Scoping Study with an internal team, with support from several specialist consultants. The following list of consultants have contributed to the Study.

Contributor	Workstream
Independent Metallurgical Operations (IMO) Pty Ltd	Metallurgical test-work, flowsheet, process design, process capital and operating cost estimates
ABGM Pty Ltd	Pit optimisation and underground mine design, scheduling, cost estimation.
Anandarasa Advisory	Economic evaluation modelling
International Resource Solutions Pty Ltd	Mineral resource estimation
Steinert	Ore sorting testwork
Biologic	Preliminary environmental assessment
RPM Global	Permitting scoping study
Mainsheet	Electricity scoping study

## Competent Person's Statement

### Mineral Resources

The information in this document that relates to Mineral Resources has been extracted from the ASX announcement titled: "Resource Upgrade Defines Panton Impressive Grade & Scale", 26 October 2023. This announcement is available to view on the Company's website at [future-metals.com.au](http://future-metals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the estimates in the original release continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the relevant original market announcement.

### Metallurgy

The information in this announcement that relates to metallurgical test work managed by Independent Metallurgical Operations Pty Ltd ("IMO") is based on, and fairly represents, information and supporting documentation reviewed by Mr Peter Adamini, BSc (Mineral Science and Chemistry), who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Adamini is a full-time employee of IMO, who has been engaged by Future Metals NL to provide metallurgical consulting services. Mr Adamini has approved and consented to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

### Mining

The information in this document that relates to mine planning, design and scheduling managed by ABGM Pty Ltd ("ABGM") is based on, and fairly represents, information and supporting documentation reviewed by Mr Anton von Wielligh, B.Sc. (Hons) in Engineering (Mining), who is a Fellow of AusIMM. Mr von Wielligh is a full-time employee of ABGM, who has been engaged by Future Metals NL to provide mining consulting services. Mr von Wielligh has approved and consented to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

### Exploration and Metallurgical Results

The Information in this announcement that relates to previous exploration and metallurgical results for the Project is extracted from the following ASX announcements:

- 27 July 2022 | High Grade Ni-Cu-PGE sulphides confirmed at Panton
- 13 February 2023 | Mining and Processing Breakthrough at Panton
- 21 March 2023 | High Grade PGM Mineralisation from 350m Step Out Drilling
- 4 May 2023 | Drilling to commence at Nickel Sulphide Targets
- 24 May 2023 | RC drilling commences at Panton Ni-Cu-PGM Targets
- 11 July 2023 | Step Change in PGM Recovery – Improved to 86%
- 5 October 2023 | FME Doubles Strategic Exploration Position Near Panton
- 26 October 2023 | Resource Upgrade Defines Panton Impressive Grade & Scale

The above announcements are available to view on the Company's website at [future-metals.com.au](http://future-metals.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant original market announcements. The Company confirms that the information and context in which the relevant Competent Person's findings are presented have not been materially modified from the original market announcements.

### Forward Looking Statements

Certain statements in this announcement relate to the future, including forward-looking statements relating to the Company's financial position, strategy and expected operating results. These forward-looking statements involve known and unknown risks, uncertainties, assumptions, and other important factors that could cause the actual results, performance or achievements of the Company to be materially different from future results, performance or achievements expressed or implied by such statements. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement and deviations are both normal and to be expected. Other than required by law, neither the Company, its officers nor any other person gives any representation, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statements will actually occur. You are cautioned not to place undue reliance on those statements.

### Appendix One | Peer Benchmarking References - Study-Stage PGM Projects

Project	Company	Study Stage	Release Date	Source
Gonneville	Chalice	Scoping	29 August 2023	<a href="#">Gonneville Nickel-Copper-PGE Project Scoping Study</a>
Marathon	Generation Mining	Feasibility	31 March 2023	<a href="#">Marathon 2023 Feasibility Study Update</a>

## Glossary

Term	Definition
<b>AISC</b>	all-in sustaining costs
<b>Au</b>	gold
<b>Avg</b>	average
<b>Cr<sub>2</sub>O<sub>3</sub> or Chromite</b>	an oxide mineral and principal ore of chromium
<b>Competent Person or CP</b>	the competent person responsible for the relevant stated information contained within this announcement
<b>Cr</b>	chromium
<b>Cu</b>	copper
<b>Dunite</b>	an intrusive igneous rock of ultramafic composition and with phaneritic (coarse-grained) texture
<b>FCF</b>	free cash flow
<b>FS</b>	feasibility study
<b>FEED</b>	front-end engineering and design
<b>FID</b>	final investment decision
<b>g/t</b>	grams per tonne
<b>Indicated</b>	that part of a Mineral Resource for which quantity, grade and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit
<b>Inferred</b>	that part of a Mineral Resource for which quantity and grade are estimated on the basis of limited geological evidence and sampling
<b>Ir</b>	iridium, one of the platinum group elements
<b>IRR</b>	internal rate of return
<b>JORC Code (2012)</b>	Australasian Code for Reporting of Mineral Resources and Ore Reserves 2012, published by the Joint Ore Reserves Committee
<b>km</b>	kilometres
<b>kt</b>	thousands of tonnes
<b>ktpa</b>	thousands of tonnes per annum
<b>LOM</b>	Life-of-mine
<b>m</b>	metres
<b>Mafic</b>	igneous rocks that are low in silicon and high in iron and magnesium
<b>Measured</b>	the part of a Mineral Reserve that has been sampled extensively by closely spaced drill holes and/or developed by underground workings in sufficient detail to render an accurate estimation of grade and tonnage
<b>Mineral Resource</b>	a concentration or occurrence of solid material of economic interest for which there is a reasonable prospect of eventual economic extraction
<b>Moz</b>	million ounces
<b>MRE</b>	mineral resource estimate
<b>mRL</b>	metres relative level, i.e. metres above sea level
<b>Mt</b>	million tonnes

<b>Ni</b>	nickel
<b>NPV</b>	net present value
<b>O</b>	oxygen
<b>Ore Reserve</b>	the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted
<b>Os</b>	osmium, one of the platinum group elements
<b>oz</b>	ounces
<b>pa</b>	per annum
<b>Panton PGM-Ni-Cr Project or Panton</b>	the Panton PGM-Nickel-Chromium (or Chromite) Project
<b>Pd</b>	palladium, one of the platinum group elements
<b>PdEq</b>	palladium equivalent
<b>PFS</b>	Pre-Feasibility Study
<b>PGE or PGM</b>	platinum group elements or metals. The collective term for platinum, palladium, rhodium, ruthenium, osmium and iridium
<b>PGM<sub>2E</sub></b>	platinum group metals, Pt and Pd
<b>PGM<sub>3E</sub></b>	platinum group metals, Pt, Pd and Au
<b>PGM<sub>4E</sub></b>	platinum group metals, Pt, Pd, Au and Rh
<b>Tpa</b>	tonnes per annum
<b>W:O</b>	waste:ore ratio





[future-metals.com.au](http://future-metals.com.au)

ASX:FME | AIM:FME

## Panton PGM Project

### Scoping Study Report

December 2023



## Consultant Workstream

Contributor	Workstream
Independent Metallurgical Operations (IMO) Pty Ltd	Metallurgical test-work, flowsheet, process design, process capital and operating cost estimates
ABGM Pty Ltd	Pit optimisation and underground mine design, scheduling, cost estimation.
Anandarasa Advisory	Economic evaluation modelling
International Resource Solutions Pty Ltd	Mineral resource estimation
Steinert	Ore sorting testwork
Biologic	Preliminary environmental assessment
RPM Global	Permitting scoping study
Mainsheet	Electricity scoping study

## Glossary

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<b>km</b>	kilometres
<b>kt</b>	thousands of tonnes



<b>Term</b>	<b>Definition</b>
<b>ktpa</b>	thousands of tonnes per annum
<b>LOM</b>	Life-of-mine
<b>m</b>	metres
<b>Mafic</b>	igneous rocks that are low in silicon and high in iron and magnesium
<b>Measured</b>	the part of a Mineral Resource that has been sampled extensively by closely spaced drill holes and/or developed by underground workings in sufficient detail to render an accurate estimation of grade and tonnage
<b>Mineral Resource</b>	a concentration or occurrence of solid material of economic interest for which there is a reasonable prospect of eventual economic extraction
<b>Moz</b>	million ounces
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<b>Ore Reserve</b>	the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted
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<b>PGM<sub>2E</sub></b>	platinum group metals, Pt and Pd
<b>PGM<sub>3E</sub></b>	platinum group metals, Pt, Pd and Au
<b>PGM<sub>4E</sub></b>	platinum group metals, Pt, Pd, Au and Rh
<b>Tpa</b>	tonnes per annum
<b>W:O</b>	waste:ore (ratio)

## Cautionary Statement

*The Scoping Study Report ("Scoping Study" or "Study") referred to in this announcement has been undertaken to evaluate the potential development of the Panton PGM-Ni-Cr Project ("Panton" or the "Project"). The Project is 100% owned by Future Metals NL ("Future Metals", "FME") or the "Company". The Scoping Study comprises a preliminary technical and economic study of the potential viability of the Project. It is based on low accuracy level technical and economic assessments that are not sufficient to support estimation of Ore Reserves. Additional infill drilling, evaluation work and appropriate studies are required before Future Metals will be able to estimate Ore Reserves or provide assurance of an economic development case. The Scoping Study has been completed to a level of accuracy of +/- 35%.*

*Of the Mineral Resources scheduled for extraction in this Scoping Study's production target, approximately 86% are classified as Indicated and 14% as Inferred over the first five years and 50% are classified as Indicated and 50% as Inferred over the evaluation period. There is a low level of geological confidence associated with Inferred Mineral Resources, and there can be no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target will be realised.*

*Under prior owners, the Project has previously had a JORC (2012) Mineral Resource Estimate ("MRE") with the majority of that estimate in the Measured & Indicated categories. This supported a Bankable Feasibility Study which was completed on the Project. Additional conservatism has been applied when estimating Panton's current JORC MRE, however, the Company believes that this is relevant information when assessing the results and confidence levels applied in this Scoping Study.*

*Future Metals notes that the majority of the upfront capital required is projected to be repaid in the years where Indicated Resources comprise a majority of the production schedule. The Company believes that it has a reasonable basis for providing such forward-looking statements and the forecast financial information based on material assumptions outlined in this announcement. One of the key assumptions is that funding for the Project will be available when required. While the Company considers all of the material assumptions to be based on reasonable grounds, there can be no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.*

*To achieve the range of outcomes indicated in the Scoping Study, funding in the order of approximately A\$267m will likely be required in pre-production capital expenditure. There is no certainty that the Company will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to, or otherwise affect, the value of Future Metals' shares. It is also possible that Future Metals could pursue other value realisation strategies such as a sale, partial sale or joint venture of the Project. If it does, this could materially reduce the Company's proportionate ownership of the Project. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.*

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## Chapter 1 | Project Overview

Future Metals owns 100% of the Panton PGM-Ni-Cr deposit (“Panton” or the “Project”) in the eastern Kimberley region of Western Australia, a tier one mining jurisdiction. The Project is located on three granted mining licenses 70km north of Halls Creek and 60km south of the operating Savannah Nickel Mine owned by Panoramic Resources Ltd.

The Project is well situated for future planned operations, with good access to roads, a deep-water port at Wyndham, sealed airstrips and local populations at the nearby towns of Halls Creek and Kununurra.

The Project is located within the traditional lands of the Malarngowem, and the tenure sits within the Alice Downs Pastoral Station.

PGM-Ni-Cr mineralisation occurs within a layered, differentiated mafic-ultramafic intrusion referred to as the Panton intrusive which is a 9km long and 3km wide and 1.7km thick south-west plunging synclinal intrusion. PGM & Cr mineralisation is hosted within a series of stratiform chromite reefs as well as a surrounding zone of mineralised dunite within the ultramafic package.

Panton is the highest grade PGM deposit in Australia, with mineralisation defined across three components within a JORC (2012) Mineral Resource Estimate (“MRE”); the Reef, the High Grade Dunite and the Bulk Dunite. The High Grade Dunite is at the contact and runs parallel to the Reef throughout the entire deposit. These two components of the Resource are the focus for the Scoping Study and planned future operations.

Future Metals’ plans to produce both a high-grade PGM concentrate, and a chromite concentrate from the Panton deposit. These concentrates will be trucked via sealed public roads to Wyndham for export to customers globally.



Figure 1-1 | Panton PGM-Ni-Cr Project Location

## Chapter 2 | Geology and Mineralisation

Panton is located in the East Kimberley region of Western Australia. The deposit is part of the Panton layered mafic-ultramafic intrusive complex which intruded into the central zone of the Halls Creek Orogen. The Halls Creek Orogen consists of three north-north-easterly trending, highly deformed, medium to high-grade metamorphic zones comprising sedimentary, volcanic and intrusive rock suites. The orogen separates the Palaeoproterozoic Kimberley Basin to the northwest, and the Australian Craton to the southeast.

The Panton Intrusion has undergone several folding and faulting events that have resulted in a south westerly plunging synclinal structure that is 9km long, 3km wide and 1.7km thick. The intrusion comprises a basal ultramafic zone with minor chromite seams within the dunite and peridotite cumulate rocks. This unit also contains fine grained intercumulus disseminated sulphides. The basal ultramafic is observed to be either sheared or having a chilled contact with the Tickalara sediments. This basal ultramafic unit is subsequently overlain by a second ultramafic which hosts the chromite-rich olivine cumulate rocks that host the primary PGM reef resource. This ultramafic is overlain by a mafic zone that is comprised of leucogabbro, gabbro, ferrogabbro, pyroxenite, gabbro-norites and norites. The top of the intrusion is comprised of anorthosite.

A number of structural deformation events are present. This has resulted in large scale folding, faulting and widespread shearing of the ultramafic/mafic sequence. The intrusion is asymmetrically folded into a tight syncline, which gently plunges to the southwest. The fold is closed at the north-eastern end and faulted off in the southwest. Other dominant structural features include the numerous small scale and lesser large-scale faulting. The main orientation of faulting strikes north-south with nearly all having a sinistral movement sense; horizontal fault displacement from cm scale to the order of 1,000m for the Panton Fault which separates the C and D sub-Blocks. Vertical displacement along the Panton Fault indicates the C sub block was uplifted and the D sub block dropped. The extent and orientation of vertical displacement is still being determined. Faulting orthogonal to the north-south faulting is present but less pronounced.

The interpreted weathering profile for Panton resembles the topographic profile. A thin veneer of highly weathered material consisting of predominantly red-brown soil, alluvium and colluvium covers much of the project area. The physical weathering ranges from a few centimetres up to 15m but is largely confined to less than 1m. Chemical weathering is observed in drilling along structures and layers surrounding the reef where magnesite has altered the dunite.

The PGM mineralisation within the intrusion is predominantly associated with the high chromitite bearing seams which vary from 10cm to 5m averaging 0.9m in thickness. Where dunite is interbedded between the chromitite reefs, further high grade PGM mineralisation is present within the disseminated chromite. This mineralisation is contained within the upper ultramafic sequence which has been further divided into multiple domains including the upper and lower reefs and associated footwall and hanging wall dunite mineralisation. Two other PGM bearing-chromite horizons have been identified, one in the upper mafic sequence and the other in the basal ultramafic unit of the Panton intrusion. Additionally, fine grained intercumulus chalcopyrite-pentlandite mineralisation has been observed in the basal ultramafic with stringers of sulphide observed in multiple drill holes.



## Chapter 3 | Mineral Resource Estimate

The MRE at Panton establishes the project as the highest grade PGM project in Australia and one of the highest-grade PGM projects globally. The MRE also establishes Panton as the highest-grade chromite deposit in Australia.

Future Metals' engaged International Resource Solutions Pty Ltd to prepare an updated MRE in Q3 2023. The Resource has been reported in accordance with the JORC Code (2012) (refer to ASX announcement dated 26 October 2023).

The total MRE at Panton is 92.9Mt @ 1.5g/t PGM<sub>3E</sub>, 0.20% Ni, 3.1% Cr<sub>2</sub>O<sub>3</sub> (2.0g/t PdEq<sup>1</sup>) for contained metal of 4.5Moz PGM<sub>3E</sub>, 185kt Ni, 2.8Mt Cr<sub>2</sub>O<sub>3</sub>, (6.0Moz PdEq<sup>1</sup>). The MRE has been reported across three separate units; the Reef, the High-Grade Dunite and the Bulk Dunite

**Table 3-1 | Panton Total Mineral Resource Estimate**

Mass (Mt)		PGM <sub>3E</sub> (g/t)	Ni (%)	Cr <sub>2</sub> O <sub>3</sub> (%)	PdEq <sup>1</sup> (g/t)
92.9	Grade	1.5	0.20	3.1	2.0
		(Moz)	(kt)	(Mt)	(Moz)
	Contained Metal	4.5	185	2.8	6.0

The Reef component has an MRE of 10.8Mt @ 5.6g/t PGM<sub>3E</sub>, 0.27% Ni, 14.6% Cr<sub>2</sub>O<sub>3</sub> (7.0g/t PdEq<sup>1</sup>) for contained metal of 2.0Moz PGM<sub>3E</sub>, 29kt Ni, 1.6Mt Cr<sub>2</sub>O<sub>3</sub> (2.4Moz PdEq<sup>1</sup>).

**Table 3-2 | Panton Mineral Resource Estimate - High Grade Reef**

Mass (Mt)		PGM <sub>3E</sub> (g/t)	Ni (%)	Cr <sub>2</sub> O <sub>3</sub> (%)	PdEq <sup>1</sup> (g/t)
10.8	Grade	5.6	0.27	14.6	7.0
		(Moz)	(kt)	(Mt)	(Moz)
	Contained Metal	2.0	29	1.6	2.4

The High-Grade Dunite component has an MRE of 26.4Mt @ 1.3g/t PGM<sub>3E</sub>, 0.21% Ni (1.8g/t PdEq<sup>1</sup>) for contained metal of 1.1Moz PGM<sub>3E</sub>, 54kt Ni (1.5Moz PdEq<sup>1</sup>). The High-Grade Dunite is the mineralisation which sits parallel to the reef mineralisation at the footwall and hangingwall contacts.

**Table 3-3 | Panton Mineral Resource Estimate - High Grade Dunite (1.4g/t PdEq cut-off)**

Mass (Mt)		PGM <sub>3E</sub> (g/t)	Ni (%)	PdEq <sup>1</sup> (g/t)
26.4	Grade	1.3	0.21	1.8
		(Moz)	(kt)	(Moz)
	Contained Metal	1.1	54	1.5

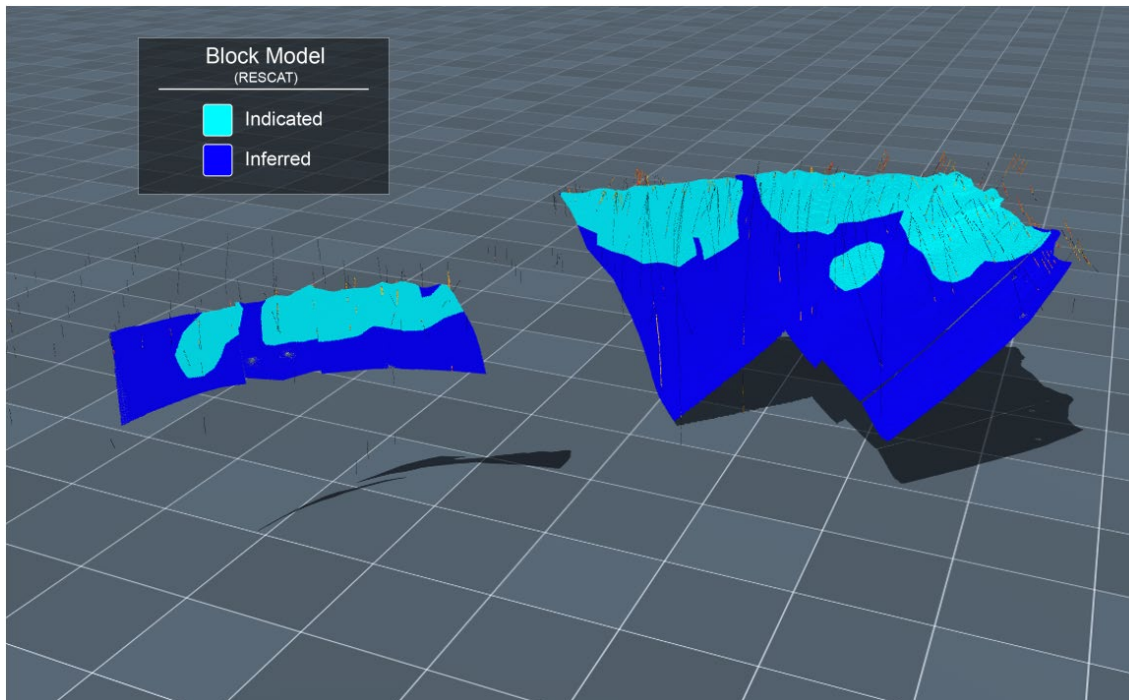
The combined Reef and High-Grade Dunite mineralisation has an MRE of 37.2Mt @ 2.6g/t PGM<sub>3E</sub>, 0.22% Ni, 6.2% Cr<sub>2</sub>O<sub>3</sub> (3.3g/t PdEq<sup>1</sup>) for contained metal of 3.1Moz PGM<sub>3E</sub>, 83kt Ni, 2.2Mt Cr<sub>2</sub>O<sub>3</sub> (3.9Moz PdEq<sup>1</sup>).

<sup>1</sup> PdEq (Palladium Equivalent). Refer to Appendix A for details

**Table 3-4 | Panton Mineral Resource Estimate - Reef & High-Grade Dunite**

Mass (Mt)		PGM <sub>3E</sub> (g/t)	Ni (%)	Cr <sub>2</sub> O <sub>3</sub> (%)	PdEq <sup>1</sup> (g/t)
37.2	Grade	2.6	0.22	6.2	3.3
	Contained Metal	(Moz)	(kt)	(Mt)	(Moz)
		3.1	83	2.2	3.9

The Bulk Dunite has been reported at a 0.9g/t PdEq<sup>1</sup> cut-off for an MRE of 55.7Mt @ 0.8g/t PGM<sub>3E</sub>, 0.18% Ni (1.2g/t PdEq<sup>1</sup>) for contained metal of 1.4Moz PGM<sub>3E</sub>, 102kt Ni (2.1Moz PdEq<sup>1</sup>). A detailed table for the Panton MRE is provided in Table 3-5.



**Figure 3-1 | Isometric view of high-grade Panton with drill traces and resource blocks coloured by Resource classification**

The Reef has been geologically constrained based on logging, PGM<sub>3E</sub> and Cr grades. The Bulk Dunite is reported at a cut-off grade of 0.9g/t PdEq<sup>1</sup> and estimated down to a vertical depth of just ~150m (300mRL). The High-Grade Dunite has been reported below this depth, at a cut-off grade of 1.4g/t PdEq<sup>1</sup>. This mineralisation occurs along the hangingwall and footwall contact with the reefs and has been reported down to the same depth as the Reef.

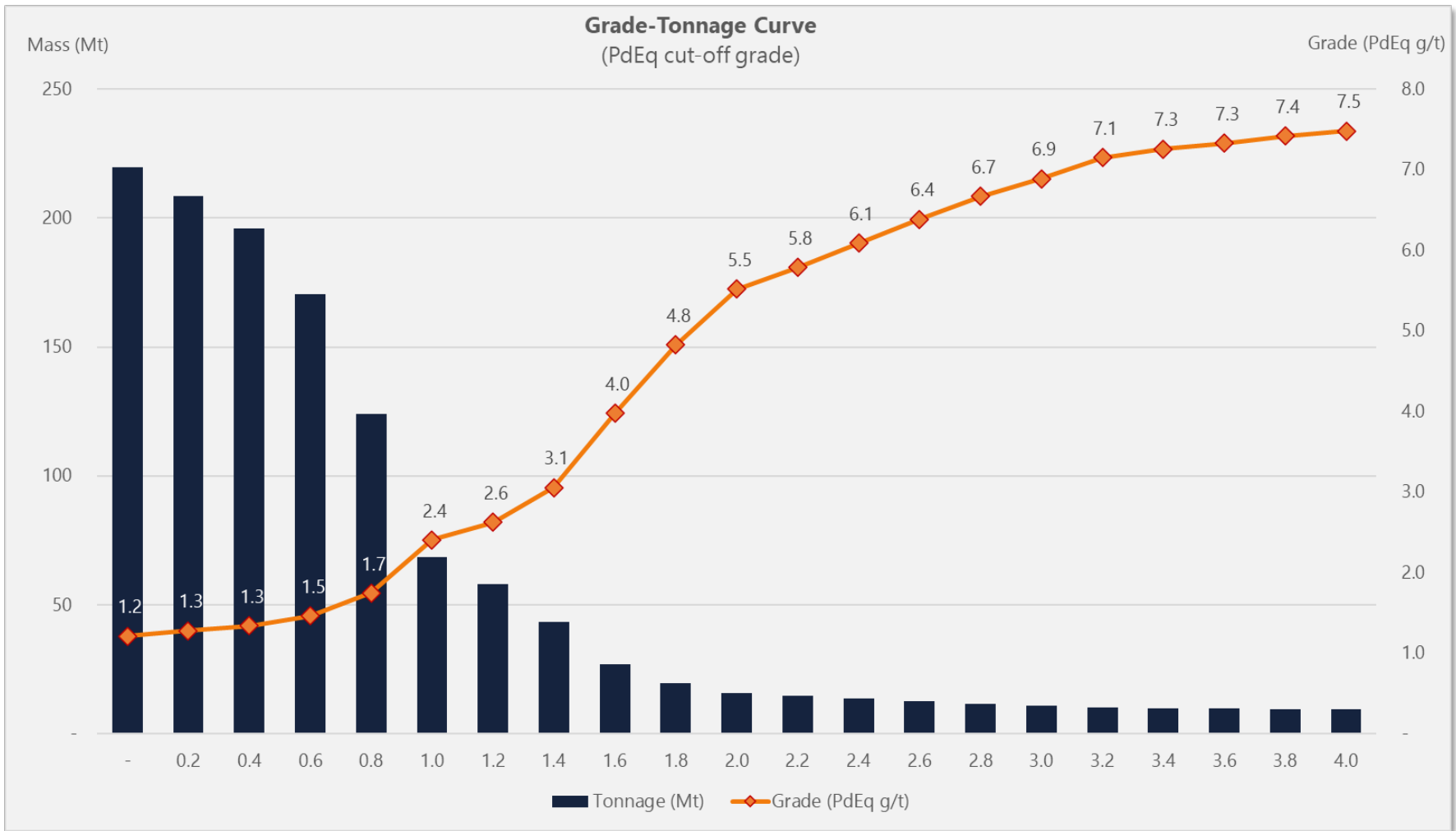
The focus of this Scoping Study is the Reef and High Grade Dunite mineralization. The High Grade Dunite sits predominantly in the footwall of the Reef and significantly increases the underground mining widths of the deposit, allowing for conventional mechanized mining equipment to enable good productivity and higher mining rates. Ore sorting allows for a focus on mining ore recovery, higher development productivity and the separating of ore for its respective process flow sheets.

The Panton deposit remains open at depth where recent drilling has demonstrated a potential thickening in the deposit as it plunges. There is also potential to discover additional sulphide-rich mineralization with historical and recent focus being primarily on the chromitite reefs. The Bulk Dunite additionally provides significant scale potential for a higher throughput operation. Further details on these areas are provided in Chapter 15 Opportunities & Upside.

**Table 3-5 | Panton Mineral Resource Estimate (JORC Code 2022)**

Category	Mass (Mt)	Grade									Contained Metal								
		Pd (g/t)	Pt (g/t)	Au (g/t)	PGM <sub>3E</sub> (g/t)	Ni (%)	Cr <sub>2</sub> O <sub>3</sub> (%)	PdEq <sup>1</sup> (g/t)	Cu (%)	Co (ppm)	Pd (Koz)	Pt (Koz)	Au (Koz)	PGM <sub>3E</sub> (Koz)	Ni (kt)	Cr <sub>2</sub> O <sub>3</sub> (kt)	PdEq <sup>1</sup> (Koz)	Cu (kt)	Co (kt)
<b>Upper Reef</b>																			
Indicated	3.0	3.3	2.8	0.5	6.5	0.29	15.5	7.9	0.08	217	318	272	46	635	9	472	771	2	0.7
Inferred	4.9	3.2	2.7	0.4	6.4	0.30	15.6	7.8	0.10	221	506	431	65	1,003	15	761	1,227	5	1.1
<b>Subtotal</b>	<b>7.9</b>	<b>3.2</b>	<b>2.8</b>	<b>0.4</b>	<b>6.4</b>	<b>0.30</b>	<b>15.6</b>	<b>7.8</b>	<b>0.09</b>	<b>219</b>	<b>824</b>	<b>703</b>	<b>111</b>	<b>1,637</b>	<b>23</b>	<b>1,233</b>	<b>1,998</b>	<b>7</b>	<b>1.7</b>
<b>Lower Reef</b>																			
Indicated	1.4	1.3	1.7	0.1	3.1	0.17	10.7	4.1	0.04	200	59	79	6	143	2	151	186	1	0.3
Inferred	1.4	1.6	2.1	0.1	3.8	0.19	13.0	4.9	0.05	215	73	95	5	173	3	185	223	1	0.3
<b>Subtotal</b>	<b>2.8</b>	<b>1.4</b>	<b>1.9</b>	<b>0.1</b>	<b>3.5</b>	<b>0.18</b>	<b>11.8</b>	<b>4.5</b>	<b>0.04</b>	<b>208</b>	<b>132</b>	<b>174</b>	<b>11</b>	<b>316</b>	<b>5</b>	<b>337</b>	<b>409</b>	<b>1</b>	<b>0.6</b>
<b>Total Reef</b>																			
Indicated	4.5	2.6	2.4	0.4	5.4	0.25	14.0	6.7	0.07	211	377	350	51	778	11	623	957	3	0.9
Inferred	6.3	2.9	2.6	0.3	5.8	0.28	15.0	7.2	0.09	220	579	526	70	1,175	17	946	1,450	5	1.4
<b>Subtotal</b>	<b>10.8</b>	<b>2.8</b>	<b>2.5</b>	<b>0.4</b>	<b>5.6</b>	<b>0.27</b>	<b>14.6</b>	<b>7.0</b>	<b>0.08</b>	<b>216</b>	<b>956</b>	<b>876</b>	<b>122</b>	<b>1,954</b>	<b>29</b>	<b>1,569</b>	<b>2,407</b>	<b>8</b>	<b>2.3</b>
<b>High Grade Dunite (Underground, below 300mRL, 1.4g/t PdEq cut-off)</b>																			
Indicated	5.9	0.6	0.6	0.2	1.4	0.20	2.2	1.7	0.04	151	120	109	30	259	12	132	334	2	0.9
Inferred	20.5	0.6	0.6	0.1	1.3	0.21	2.3	1.8	0.04	160	425	373	87	885	43	478	1,154	9	3.3
<b>Subtotal</b>	<b>26.4</b>	<b>0.6</b>	<b>0.6</b>	<b>0.1</b>	<b>1.3</b>	<b>0.21</b>	<b>2.3</b>	<b>1.8</b>	<b>0.04</b>	<b>158</b>	<b>545</b>	<b>482</b>	<b>118</b>	<b>1,144</b>	<b>54</b>	<b>610</b>	<b>1,488</b>	<b>11</b>	<b>4.2</b>
<b>Reef + High Grade Dunite</b>																			
Indicated	10.4	1.5	1.4	0.2	3.1	0.22	7.3	3.9	0.05	177	497	459	81	1,037	23	755	1,291	5	1.8
Inferred	26.8	1.2	1.0	0.2	2.4	0.22	5.3	3.0	0.05	174	1,004	899	158	2,061	60	1,424	2,604	14	4.7
<b>Subtotal</b>	<b>37.2</b>	<b>1.3</b>	<b>1.1</b>	<b>0.2</b>	<b>2.6</b>	<b>0.22</b>	<b>5.9</b>	<b>3.3</b>	<b>0.05</b>	<b>175</b>	<b>1,501</b>	<b>1,358</b>	<b>239</b>	<b>3,098</b>	<b>83</b>	<b>2,179</b>	<b>3,895</b>	<b>19</b>	<b>6.5</b>
<b>Bulk Dunite (Near surface, above 300mRL, 0.9g/t PdEq cut-off)</b>																			
Indicated	30.3	0.4	0.4	0.1	0.9	0.18	1.1	1.3	0.03	144	384	363	103	850	56	337	1,220	9	4.4
Inferred	25.3	0.3	0.3	0.1	0.7	0.18	1.3	1.1	0.03	140	273	230	61	564	46	329	873	8	3.5
<b>Subtotal</b>	<b>55.7</b>	<b>0.4</b>	<b>0.3</b>	<b>0.1</b>	<b>0.8</b>	<b>0.18</b>	<b>1.2</b>	<b>1.2</b>	<b>0.03</b>	<b>142</b>	<b>657</b>	<b>593</b>	<b>164</b>	<b>1,414</b>	<b>102</b>	<b>666</b>	<b>2,094</b>	<b>17</b>	<b>7.9</b>
<b>Total Resource</b>																			
Indicated	40.7	0.7	0.6	0.1	1.4	0.19	2.7	1.9	0.04	153	881	822	184	1,887	79	1,092	2,511	15	6.2
Inferred	52.1	0.8	0.7	0.1	1.6	0.20	3.4	2.1	0.04	157	1,277	1,129	219	2,625	106	1,753	3,478	22	8.2
<b>Total</b>	<b>92.9</b>	<b>0.7</b>	<b>0.7</b>	<b>0.1</b>	<b>1.5</b>	<b>0.20</b>	<b>3.1</b>	<b>2.0</b>	<b>0.04</b>	<b>155</b>	<b>2,158</b>	<b>1,951</b>	<b>403</b>	<b>4,512</b>	<b>185</b>	<b>2,846</b>	<b>5,989</b>	<b>37</b>	<b>14.4</b>

\* No cut-off grade has been applied to reef mineralisation and a cut-off of 0.9g/t PdEq<sup>1</sup> has been applied to the Bulk Dunite mineralisation and 1.4g/t PdEq<sup>1</sup> cut-off to the High-Grade Dunite mineralisation



**Figure 3-2 | Panton PdEq<sup>1</sup> Grade-Tonnage Curve**

## Chapter 4 | Mining

### 4.1 | Overview

Future Metals commissioned ABGM to complete a Scoping Study for both the open cut and underground mining planning of the Panton Project. This follows and takes into consideration several studies completed on the Project in the last 20 years.

The mining cost estimate is +/- 35% accuracy. ABGM's mining operating costs were derived from various industry sources in Western Australia for both the open pit and underground mining activities. During the Scoping Study, ABGM's scope of work included the work areas outlined below:

- Mine planning criteria
- Optimisation
- Mine design and scheduling
- Mine infrastructure
- Cost and revenue modelling
- Scoping study report
- Forward work plan

Mining of the Panton deposit will be via a combination of open pit and underground methods. The open pit mine life is currently projected to be approximately 2 years followed immediately by the underground for a further 8.5 years. The selected mining methods, design and extraction sequences have been tailored to suit this Project. ABGM sought to minimise dilution and ore loss, utilise planned processing plant capacity and promote free cash generation in the early years of mine life. The mining schedules are based on realistic mining productivities achievable stope turnover rates.

All pit and infrastructure will be within the current mining lease boundaries.

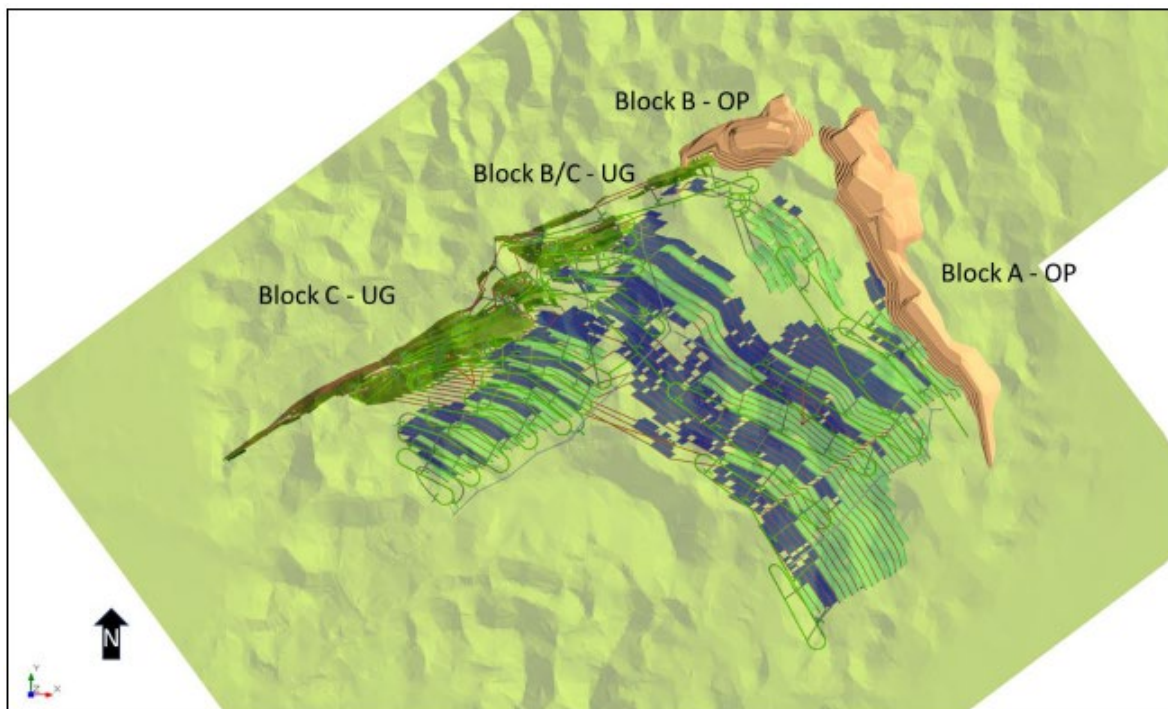


Figure 4-1 | Plan view of the open pit and underground footprint

## 4.2 | Key Parameters

Key parameters used as part of both underground and pit optimization process include (but are not limited to):

- 1,250ktpa (and 850ktpa) of dunite + chromite ore processing
- Costs sourced from reliable industry sources, benchmarking and previous quotes
- Metallurgical recoveries provided by IMO who completed testwork in addition to prior testwork by ALS
- Processing and other infrastructure costs provided by IMO

### 4.2.1 | Open Pit Mining Parameters

Open pit mining blocks with dimensions of 20mLx20mWx10mH were used and deemed to provide acceptable resolution. To minimize the stripping ratio, a single direction 12m wide ramp was allocated to both of the open pits. The open pit mining cost was based on a contractor unit rate of \$10/BCM for waste and \$11.50/BCM for ore.

**Table 4-1 | Open Pit Design Criteria**

Description	Overall Slope Angle	Inter- Ramp Angle	Berm Width	Pit Face angle
High weathered	40	45	6.4	60
Moderately weathered	45	50	4.8	65
Trans rock	50	55	3.4	70
Fresh rock	55	60	4.0	80

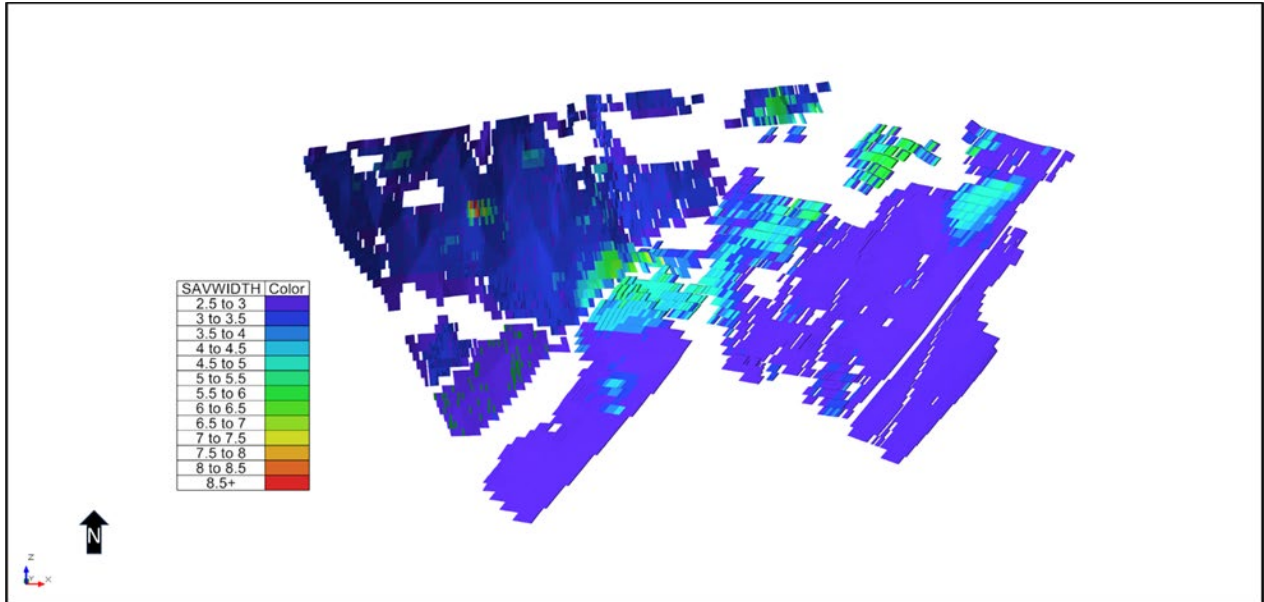
### 4.2.2 | Underground Planning Parameters

Stope shapes were developed through multiple Datamine Mine Shape Optimiser (“MSO”) cycles. Stope heights of 25m and a minimum 2.5m true width were utilised. The 2.5m stope width includes planned 1m overbreak and a minimum planned stoping width of 1.5m. The overall stoping statistics (from the stope design files and evaluation) yielded the following:

- Overall ore loss for stoping ore - internal ore loss - 5%
- Stope dilution minimum for very wide stopes - 11%
- Stope maximum dilution - 40%
- Overall Stope dilution (calculated on weighted average) - 31%
- Regional pillars - ore loss factor applied - 10%
- Total ore loss applied to stope volumes and tonnes - 15%

The figure below illustrates stoping widths for the underground footprint.





**Figure 4-2 | Underground stoping widths in metres**

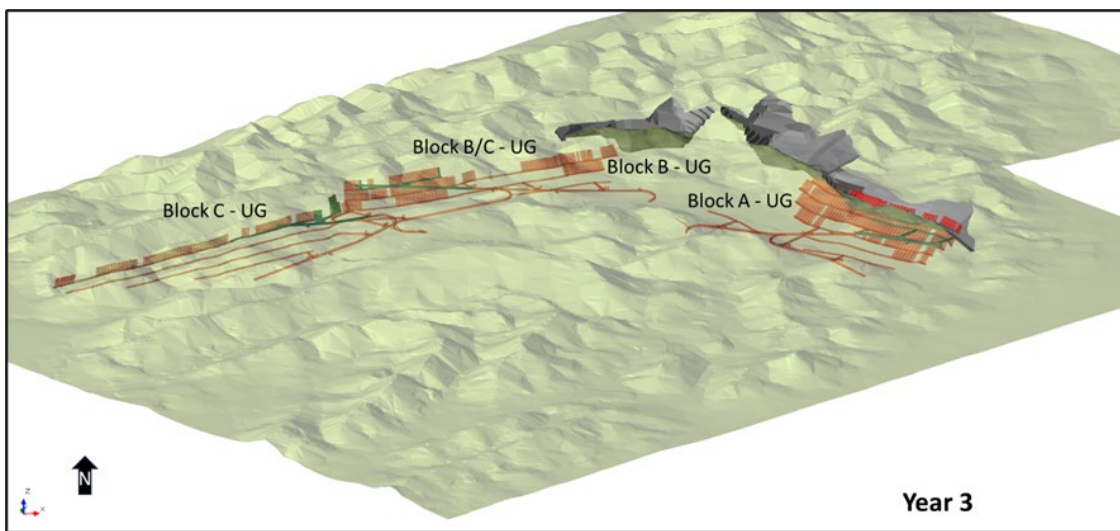
### 4.2.3 | Net Smelter Return

MSO calculations were based on Net Smelter Return (“NSR”) exceeding mining and processing operating expenditure for each shape. NSR is Total Revenue less Realisation Costs (logistics, payabilities and smelter charges) less Royalties. The inputs for calculating NSR are in line with those detailed in Chapter 10 Financial Evaluation.

### 4.3 | Mining Methods

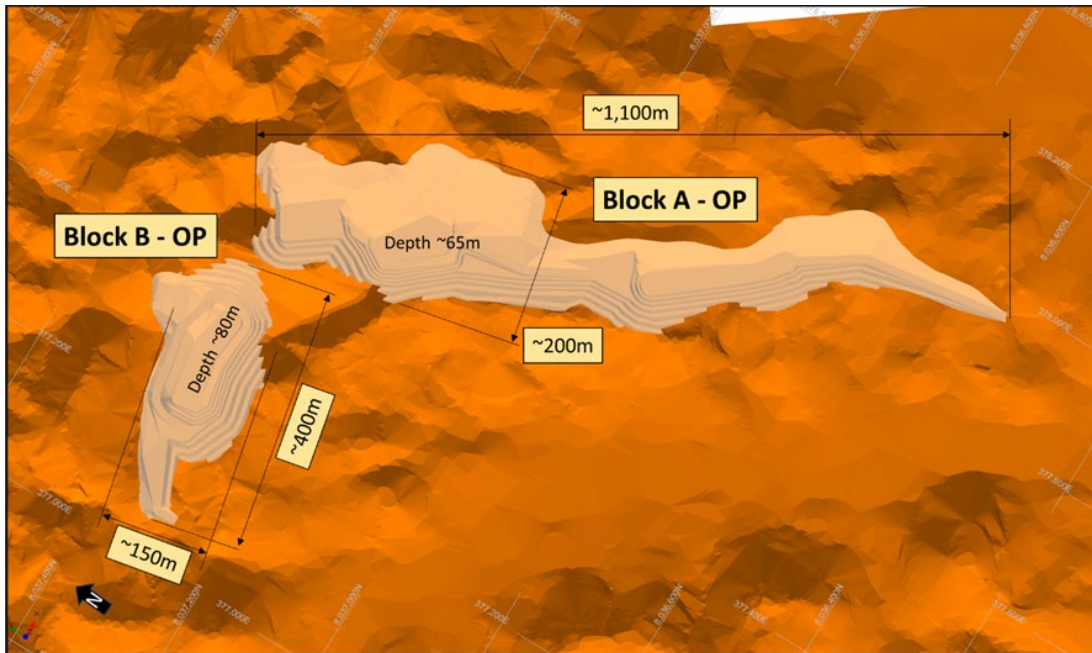
The Panton Project open cut will be mined via a conventional drill, blast, load and haul cycle. All mining activities will be conducted by a mining contractor with commonly used equipment.

Pit designs and initial underground development are shown in isometric view in Figure 4-3 and Figure 4-4.



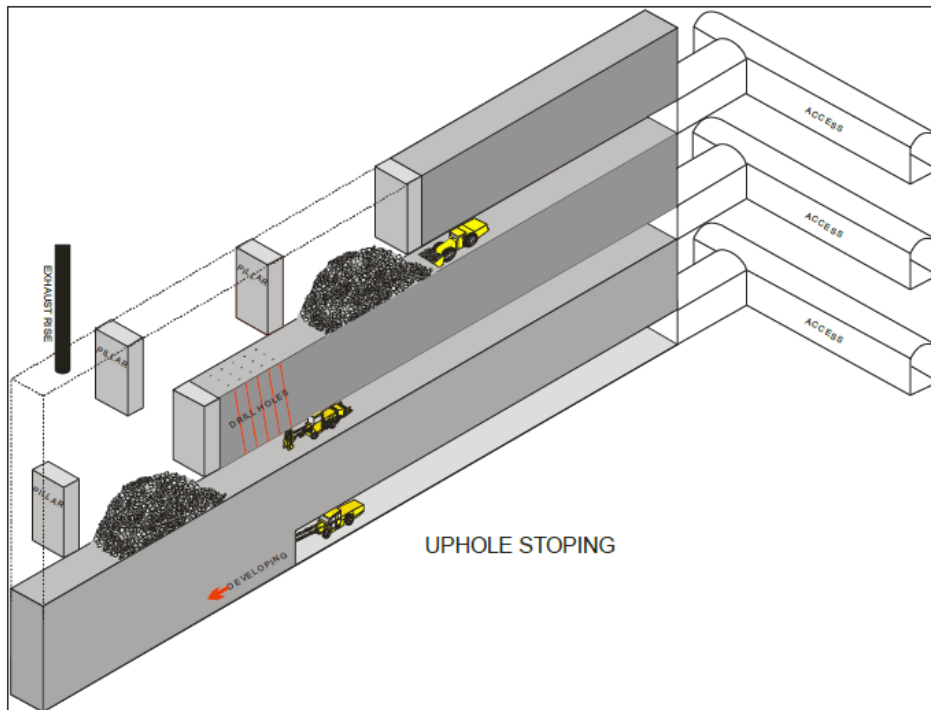
**Figure 4-3 | Isometric view of open pit and underground at the end of Year 3**





**Figure 4-4 | Plan view of open pit with dimensions**

Underground mining will be via top-down long hole open stoping (“LHOS”). Geotechnical parameters from previous studies on this Project were reviewed and used for this Scoping Study. The proposed mining method includes 15% rib pillars in low grade portions of the orebody. The mine will be accessed by a decline system in the hanging wall and three portals. These declines will facilitate access to the A, B and C blocks. Mining will be conducted using a conventional rubber tire diesel fleet including an average of 4 jumbos, 3 bidders and 3 trucks. Total life of mine operations for the underground, including development and stoping will be approximately 9 years (1,250ktpa Case).



**Figure 4-5 | Top-down Long hole Open Stopping (longitudinal up-hole production drilling with rib pillars)**

Long hole open stoping is commonly used in Western Australia and the required skill sets are readily available in the local workforce. The use of ore sorting has enabled greater economies of scale, deployment of readily available large equipment and higher ore recovery by avoiding the need to use more selective mining methods to avoid ore dilution.

The following table summarises the design and scheduling parameters used for Panton’s underground production scheduling:

**Table 4-2 | Underground Drive Design Criteria and Schedule rates**

Drive Type	mW	mH	Advance Rates	Round lengths
Decline	5.5	5.2	90m – 100m/mth	4
Access	5	5	105m/mth	4
Remuck bays	6	5.5	105m/mth	4
Sumps	5	5	105m/mth	4
Ore Drive	4	4	90m/mth	4
Ventilation Shaft		5.2	60m/mth	N/A
Ventilation Drives	2	2	105m/mth	2
Escape way	2	2	105m/mth	2
Vent_Flat drives	4	4	60m/mth	4

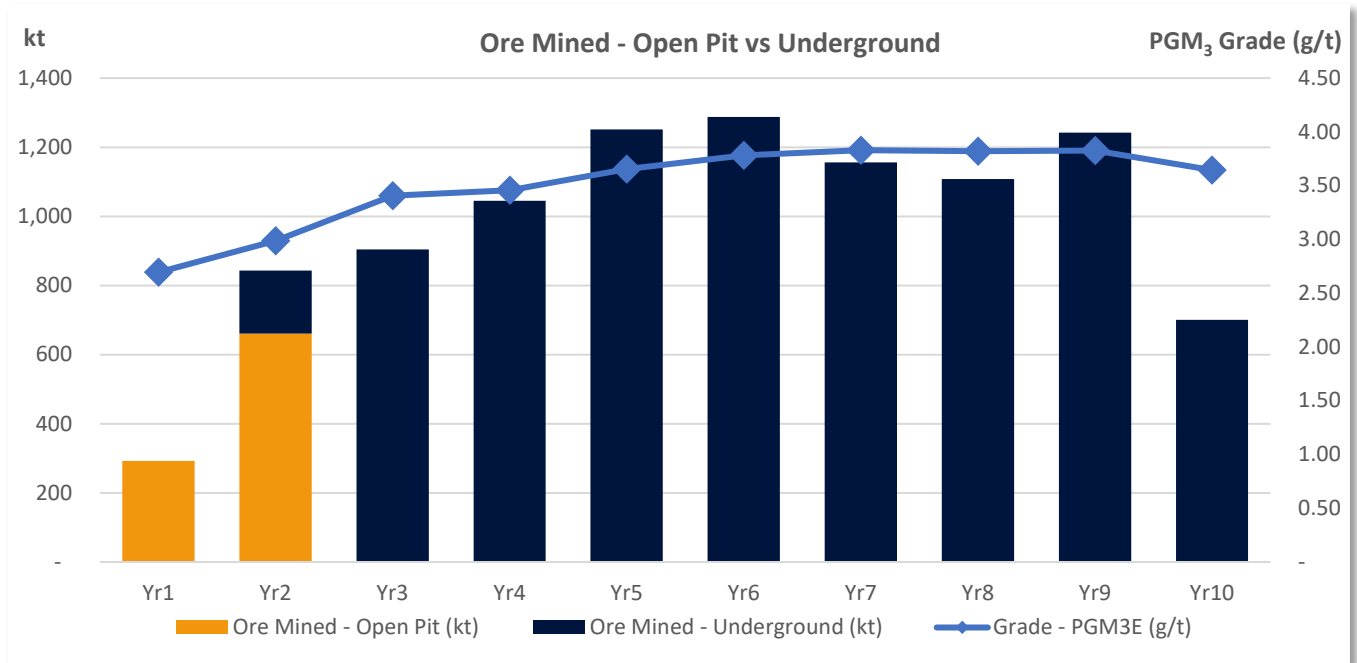
#### 4.4 | Mining Inventory and Production Profile

The Panton Project has the following mining inventory.

**Table 4-3 | Panton Mining Inventory**

Mining Physicals		
<b>Underground Mine</b>		
Total Lateral Development	m	84,056
Total Vertical Development	m	4,071
Total Waste	kt	2,254
Total Reef Ore	kt	3,513
Total Dunite Ore	kt	5,365
Reef Grade – PGM <sub>3E</sub> (LOM Avg)	g/t	6.84
Reef Grade – PdEq (LOM Avg)	g/t	8.96
Dunite Grade – PGM <sub>3E</sub> (LOM Avg)	g/t	1.61
Dunite Grade – PdEq (LOM Avg)	g/t	2.19
Years of Underground Mining	yrs	8.5
<b>Open Pit Mine</b>		
Total Waste	kt	11,648
Strip Ratio	W:O	12.2
Total Reef Ore	kt	273
Total Dunite Ore	kt	679
Reef Grade - PGM <sub>3E</sub> (LOM Avg)	g/t	6.23
Reef Grade - PdEq (LOM Avg)	g/t	8.16
Dunite Grade - PGM <sub>3E</sub> (LOM Avg)	g/t	1.52
Dunite Grade - PdEq (LOM Avg)	g/t	2.09
Years of Open Pit Mining	yrs	2.0

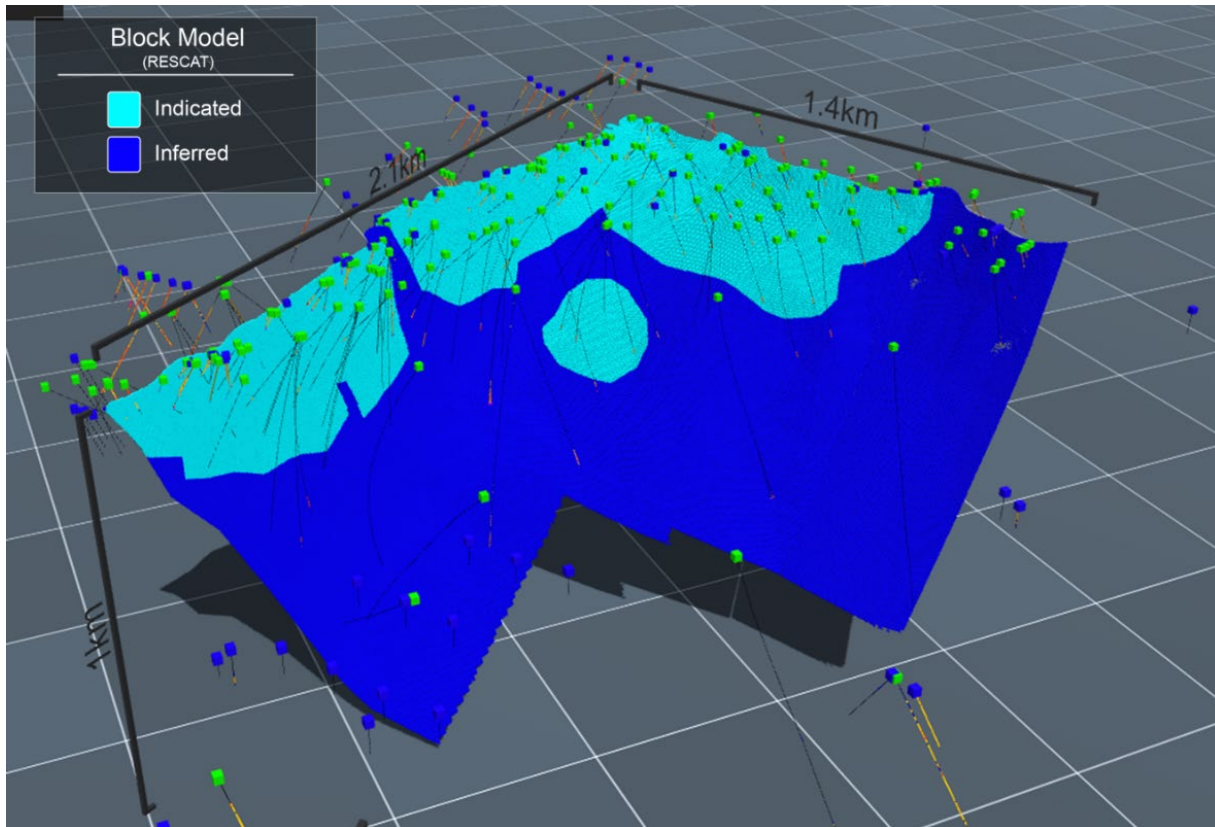
The ore production profile is presented below in Figure 4-6 below.



**Figure 4-6 | Ore Mined - Open Pit and Underground**

## 4.5 | Production Target

The focus of the Study is the Reef-style mineralisation and the mineralised High Grade Dunite which sits predominantly in the footwall of the Reef. The deposit is laterally and vertically extensive, and mineralisation is demonstrably continuous across its extent. The shallower portions, which the Study envisages to be mined initially, have been more densely drilled and therefore have been categorised as Indicated resources. The spacing of drillholes is broader at depth (see Figure 4-7), and while this deeper drilling demonstrates the continuity of the Reef and High Grade Dunite mineralisation, there are lower levels of geological confidence in the grades and widths of the mineralisation in these areas. Given this, the deeper portion of the deposit has been classified as Inferred. The Company intends to complete a review of the Resource in conjunction with the Study mine planning to define the areas which require further drilling in order to upgrade them from Inferred to Indicated. As part of the Study, the Company has included \$3m per annum from Year 5 for infill drilling costs.



**Figure 4-7 | Isometric view of high-grade Panton with drill traces and resource blocks coloured by Resource classification**

Under prior owners, the Project has previously had a JORC (2012) MRE with the majority of that estimate falling in the Measured and Indicated categories. This supported a Bankable Feasibility Study which was completed on the Project in 2003 and updated in 2012. A significant component of Pantón’s current JORC MRE has been classified as Indicated and, the Company believes that this is relevant information when assessing the results and confidence levels applied in the Study.

Annual numbers with the breakdown of Indicated and Inferred Resources for mined ore are shown in Figure 4-8. Indicated Resources comprise 86% of the total material scheduled to be extracted in the first 5 years of the production target outlined in the Study. Over the life of mine, Indicated material comprises 50% of the Study’s production target. The Study demonstrates that the pre-production capital for the Project is forecast to be repaid in Year 5 when Indicated material comprises the majority of the mine plan.

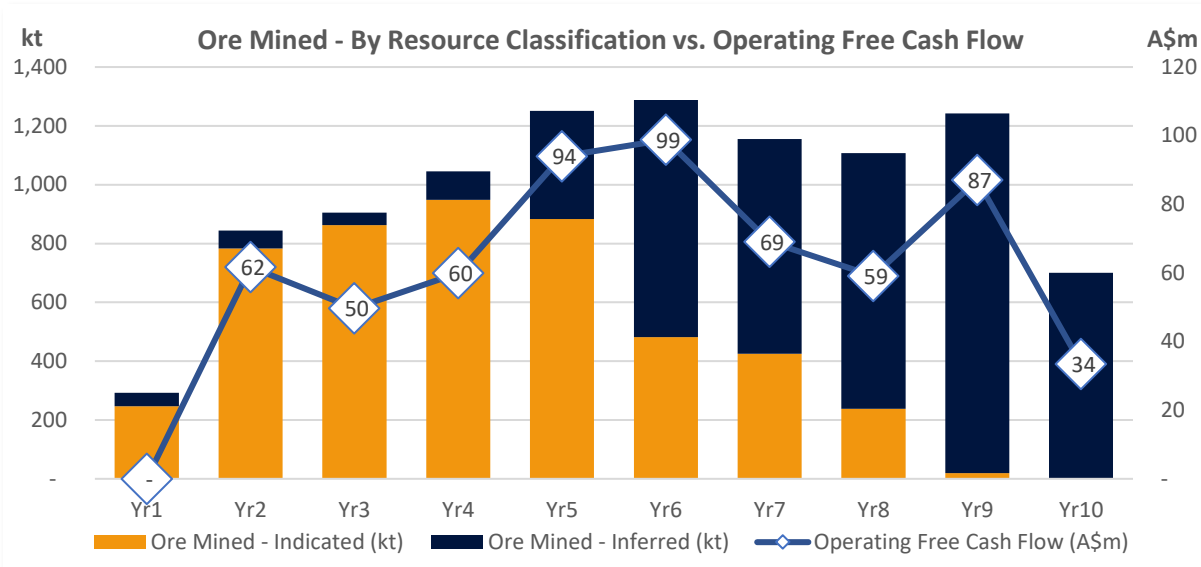


Figure 4-8 | Ore Mined - by Resource Classification vs. Operating Free Cash Flow

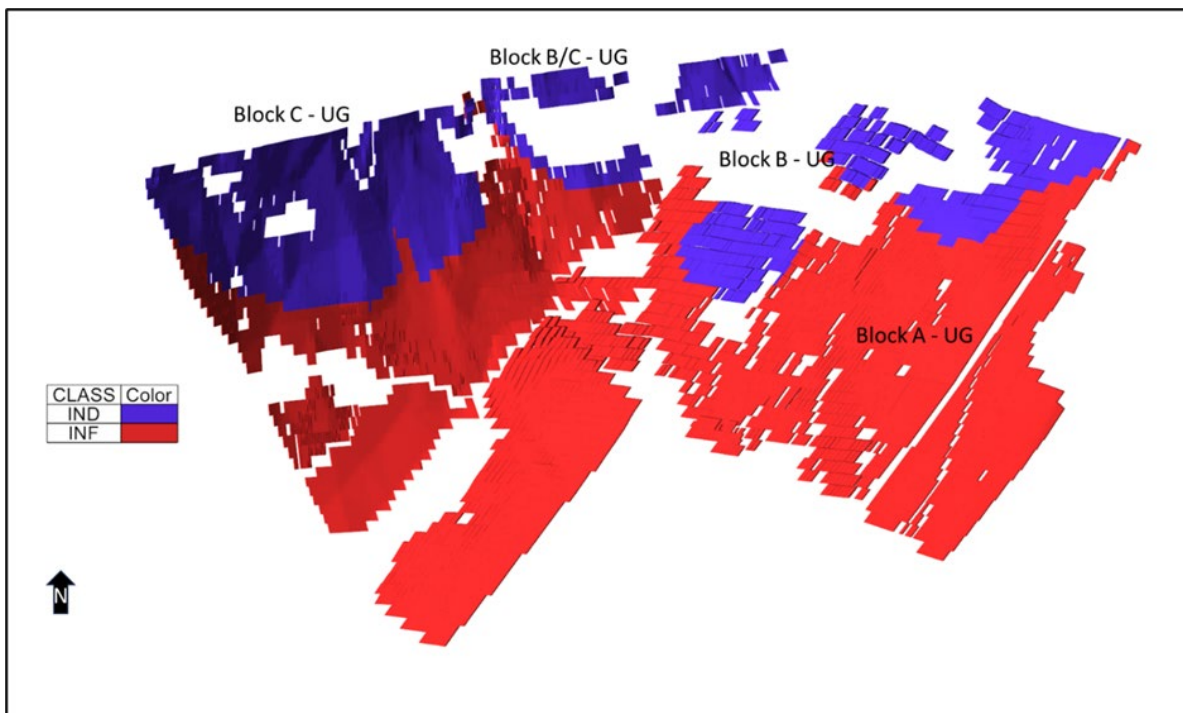


Figure 4-9 | Resource classification of underground mining footprint

## Chapter 5 | Metallurgy & Testwork Overview

### 5.1 | Metallurgical Development at Panton

The Panton Project has been subject to a significant amount of metallurgical optimization work over the past ~25 years. Platinum Australia NL progressed the project through to a Bankable Feasibility Study in 2003 which was supported by over 200 flotation tests, including pilot flotation tests on over 400t of material at Mintek's facilities in South Africa following the installation of a decline and extraction of a bulk sample from the orebody. Platinum Australia achieved high recoveries of ~85-90% however this was associated with long flotation times which led to high mass pulls (15-30%) and low concentrate grades of 15 – 25g/t PGM<sub>3E</sub>. This led to the development of the hydrometallurgical Panton Process which was demonstrated to be technically feasible through pilot scale testwork, however it increased the capital and operating costs of the operation.

Panoramic Resources Limited acquired the Panton Project in 2012 and focused on increasing the concentrate grade of the PGM concentrate while maintaining ~80% recoveries. Through a period of optimization it was discovered that liberated PGM particles were oxidizing/passivating during the long flotation times. Testwork demonstrated that creating a reductive environment and using sulphidising agents significantly improved the kinetics of the liberated PGM particles and enabled much shorter flotation times. This was combined with a single stage grind-flotation regime, grinding material to 30µm. These factors enabled significantly lower mass pulls (~3%) while achieving recoveries of ~80% and ultimately creating a step change in PGM<sub>3E</sub> concentrate grades from Reef material (>200g/t in testwork).

Future Metals' has built upon this step change in PGM concentrate grades through the following:

- **Flotation optimization:** Optimised the flotation regime for Reef material to achieve repeatability and reduce costs. This is primarily a result of controlling the redox potential through the flotation stages and removing nitrogen sparging from the process.
- **Dunite flotation:** Successfully applied a similar flotation regime to the lower grade Dunite material, enabling the processing of material which was previously considered mineralized waste. This has enabled significantly improved mining rates by increasing stope sizes and therefore increased the scale potential of the Project.
- **Ore sorting:** Established the effectiveness of ore sorting in separating Reef material from Dunite material. This enables specific processing trains for each material type. It also enables a focus on ore recovery and faster development rates in mining as previous mining efforts were focused on selectively mining Reef material given the inability to process Dunite material.
- **Tails recovery:** Built upon early leach testwork by Platinum Australia to establish Resin-in-Leach ("RIL") & elution as an effective process addition to boost overall recoveries of Pd and Au.
- **Chromite concentration:** Demonstrated the ability to produce a saleable chromite concentrate from the PGM flotation tailings, improving the Projects economics and reducing the amount of material reporting to the Tailings Storage Facility ("TSF") at site.



### 5.1.1 | Mineralogy

Mineralogical analysis of Panton Reef material has determined the following:

- The major platinum mineralization is sperrylite  $PtAs_2$  (platinum arsenide) with ferro-platinum, platinum-iron-palladium-copper and elemental platinum also present.
- The palladium mineralization is present as Pd-Sb (palladium-antimony), palladium-antimony-bismuth and palladium telluride. Palladium was also found in trace, but detectable, amounts in a nickel-arsenic phase.
- Other precious metal-bearing phases found included gold, electrum and silver.
- The sulphide mineralization included pyrite ( $FeS_2$ ), chalcopyrite ( $CuFeS_2$ ) and pentlandite ( $(Fe,Ni)_9S_8$ )
- The PGM particles are generally found as discrete particles or locked inclusions within chromite and silicate particles. PGMs do not appear to be very strongly associated with the sulphide minerals

### 5.1.2 | Comminution

A range of comminution testwork has been completed on samples from Panton material. This work includes impact crushing and ball mill grinding work index determinations. Fine grinding testwork has also been completed to determine the suitability of either the IsaMill or the VertiMill for grinding of material. This testwork has supported the inclusion of the below comminution assumptions when establishing the flowsheet.

- A x b values of 26 for the dunite indicating high competency with other open cut and underground ores both ranging from 43 to 49 indicating mild competency.
- Open cut ore Bond Ball Mill Work Index ranging from 11.5 to 15.6 which IMO classes as soft to medium hardness;
- Underground ore Bond Ball Mill Work Index ranging from 14.0 to 17.0 which IMO classes as medium hardness;
- Low abrasiveness of 0.04 to 0.06 resulting in low media consumptions and wear on process plant equipment.

The crushing circuit flowsheet includes a two-stage jaw crush prior to the ore sorters followed by two stages of cone crushing on each of the chromite and dunite ore sorting products. The grinding flowsheet includes a ball mill followed by ultrafine vertical stirred mill for both chromite and dunite products.

### 5.1.3 | Ore Sorting

Ore Sorter testwork was carried out using combined X-ray Transmission ("XRT") and 3D-laser sensors on a KSS FLI XT Sensor Sorter ("Ore Sorter") at Steinert Australia's ("Steinert") Perth test facility. The Steinert Ore Sorter is a commercial scale continuous unit which generates results representative of a larger capacity Ore Sorter that would potentially be installed on site at Panton.

Ore Sorter testwork was conducted on separate +75-25 mm and -25+10 mm size fractions on combined Reef and Dunite ore samples. The Ore Sorter initially separated the Higher Density Reef and Lower Density Dunite ore samples prior to each product from within the individual size fractions being separately repassed through the Ore Sorter to generate higher and lower density fractions from each of the respective ores.

Ore Sorter accepts have been labelled as Reef whilst ore sorter rejects have been labelled as Dunite.

Whilst two passes were required to generate the results in Table 5-21, Ore Sorter conditions are able to be varied so that this separation could be achieved in a single pass effectively generating a combined “Reef, -75+25 mm” and “High Density Dunite, -75+25 mm” which could also be labelled as a “Mid Density Reef, -75+25 mm” product. The -10 mm product is too fine to ore sort and will be recombined with the ore sorter concentrates to mitigate metal losses from this stream.

Both the single pass (separate the Reef from the Dunite) and dual pass scenarios (higher density Dunite sample generated from the -75+25 mm fraction) were analysed with results from each scenario respectively presented in Table 5-1 and Table 5-2.

**Table 5-1 | Single Pass Ore Sorter Results – Scenario 1**

Ore Sorting Products	Weight	Pt		Pd		Au		Pt, Pd & Au		Cr <sub>2</sub> O <sub>3</sub>	
	%	ppm	%dist	ppm	%dist	ppm	%dist	ppm	%dist	%	%dist
Reef, -75 + 25 mm	41.7%	4.53	54.1	5.23	54.4	0.37	40.5	10.1	53.6	28.56	57.1
Reef, -25 + 10 mm	15.5%	4.46	19.8	4.95	19.1	0.41	16.7	9.8	19.3	26.79	19.9
-10 mm	10.1%	3.24	9.37	3.62	9.15	0.33	8.82	7.19	9.23	20.42	9.91
<b>Total Ore Sorter Accepts</b>	<b>67.2%</b>	<b>4.32</b>	<b>83.2</b>	<b>4.92</b>	<b>82.7</b>	<b>0.37</b>	<b>66.1</b>	<b>9.62</b>	<b>82.1</b>	<b>26.93</b>	<b>86.9</b>
Total Ore Sorter Rejects	32.8%	1.79	16.81	2.12	17.32	0.39	33.9	4.30	17.90	8.32	13.1
Total	100.0%	3.49	100.0	4.00	100.0	0.38	100.0	7.87	100.0	20.83	100.0

**Table 5-2 | Dual Pass Ore Sorter Results – Scenario 2**

Ore Sorting Products	Weight	Pt		Pd		Au		Pt, Pd & Au		Cr <sub>2</sub> O <sub>3</sub>	
	%	ppm	%dist	ppm	%dist	ppm	%dist	ppm	%dist	%	%dist
Reef, -75 + 25 mm	41.7%	4.53	54.1	5.23	54.4	0.37	40.5	10.1	53.6	28.56	57.1
Reef, -25 + 10 mm	15.5%	4.46	19.8	4.95	19.1	0.41	16.7	9.8	19.3	26.79	19.9
High Density Dunite, -75 + 25 mm	12.7%	2.75	10.0	3.18	10.1	0.57	18.9	6.5	10.5	12.93	7.9
-10 mm	10.1%	3.24	9.37	3.62	9.15	0.33	8.82	7.19	9.23	20.42	9.91
<b>Total Ore Sorter Accepts</b>	<b>79.9%</b>	<b>4.07</b>	<b>93.2</b>	<b>4.64</b>	<b>92.7</b>	<b>0.40</b>	<b>85.0</b>	<b>9.12</b>	<b>92.6</b>	<b>24.70</b>	<b>94.8</b>
Total Ore Sorter Rejects	20.1%	1.19	6.83	1.45	7.25	0.28	15.0	2.92	7.44	5.42	5.2
Total	100.0%	3.49	100.0	4.00	100.0	0.38	100.0	7.87	100.0	20.83	100.0

**Table 5-3 | Dual Pass Ore Sorter Results – Scenario 3**

Ore Sorting Products	Weight	Pt		Pd		Au		Pt, Pd & Au		Cr <sub>2</sub> O <sub>3</sub>	
	%	ppm	%dist	ppm	%dist	ppm	%dist	ppm	%dist	%	%dist
Reef, -75 + 25 mm	41.7%	4.53	54.1	5.23	54.4	0.37	40.5	10.1	53.6	28.6	57.1
Reef, -25 + 10 mm	15.5%	4.46	19.8	4.95	19.1	0.41	16.7	9.8	19.3	26.8	19.9
High Density Dunite, -75 + 25 mm	12.7%	2.75	10.0	3.18	10.1	0.57	18.9	6.5	10.5	12.9	7.9
High Density Dunite, -25 + 10 mm	7.4%	1.77	3.7	2.21	4.1	0.39	7.5	4.4	4.1	9.1	3.2
-10 mm	10.1%	3.24	9.4	3.62	9.1	0.33	8.8	7.2	9.2	20.4	9.9
<b>Total Ore Sorter Accepts</b>	<b>87.3%</b>	<b>3.88</b>	<b>96.9</b>	<b>4.44</b>	<b>96.8</b>	<b>0.40</b>	<b>92.5</b>	<b>8.72</b>	<b>96.7</b>	<b>23.39</b>	<b>98.0</b>
Total Ore Sorter Rejects	12.7%	0.85	3.09	1.00	3.18	0.22	7.5	2.08	3.35	3.26	1.99
Total	100.0%	3.49	100.0	4.00	100.0	0.38	100.0	7.87	100.0	20.83	100.0

### 5.1.4 | PGM Flotation

The understanding of current flotation conditions is built upon over 200 batch and bulk flotation tests performed by Platinum Australia, Panoramic Resources and Future Metals'. This testwork was completed across a number of composites comprising Reef, Dunite and blended material. These testwork programmes have explored the performance of a variety of flowsheet options and conditions such as grind size, reagent additions, potential control, pH control, scrape and impeller rates. While recent testwork by Future Metals' has utilised one primary Reef composite and Dunite composite, variability testing by Platinum Australia provides confidence that results will be repeatable across multiple composites throughout the orebody when applying Future Metals' flotation regime.

### 5.1.5 | Reef Composite

Future Metals' optimisation and variability test work has yielded positive results on the high-grade chromite samples with PGM<sub>3E</sub> recoveries of 75.7% to 81.4% with concentrate grades from 167 g/t to 387 g/t PGM<sub>3E</sub> with an average of 286g/t PGM<sub>3E</sub>. These results correspond with a range of mass pulls from 1.7 – 3.4%. These results were achieved over nine consecutive tests, demonstrating strong repeatability of the flotation regime. A key factor to these consistent results is controlling redox potential through the flotation cycle and ensuring a reducing environment is maintained. Other physical parameters have also been optimised such as froth collection rates, number of flotation stages and flotation retention time.

### 5.1.6 | Dunite Composite

The Company has completed flotation testwork on a Dunite Composite, achieving the results set out below. This Composite is substantially lower grade than the High Grade Dunite that is assumed to be processed in the Scoping Study (average feed grade of 1.56g/t PGM<sub>3E</sub> versus 0.96g/t PGM<sub>3E</sub> for testwork). The flotation regime used for the Dunite is substantially the same to the regime used for the Reef Composite. The mass pull on the Dunite composite was 6.4%. It is expected that lower mass pulls can be achieved on the High Grade Dunite while achieving similar recoveries.

### 5.1.7 | Leaching

A significant amount of testwork has been completed on Panton composites utilizing cyanide leaching by Platinum Australia as part of the development of the Panton Process. Historical test work on a chromite scavenger tails composite showed high recoveries of Pd and Au while testing multiple variables including grind size, temperature and reagent concentration. As part of this same programme, atmospheric leaching of a dunite composite was also tested across a range of variables, demonstrating recoveries of ~70-87% Pd and ~90-97% Au.

This historical test work also included pilot scale testing which demonstrated the ability to produce a very high grade PGM product suitable for direct sale to refineries from the PGM in leachate.

Future Metals' has completed a standard cyanide bottle roll test on the tailings from prior flotation test work on Reef Composite samples. This sample's grind size is P<sub>80</sub> of 30µm. This testwork confirmed the prior results achieved on Panton composites.

The proposed flowsheet incorporates a RIL and elution circuit to leach Reef tailings and produce a high-grade Pd and Au concentrate.

### 5.1.8 | PGM Flotation & Leach Recoveries

Table 5-4 below sets out the ranges of recoveries achieved by Future Metals' across its flotation and leaching testwork.

**Table 5-4 | PGM Flotation and Leach Recoveries**

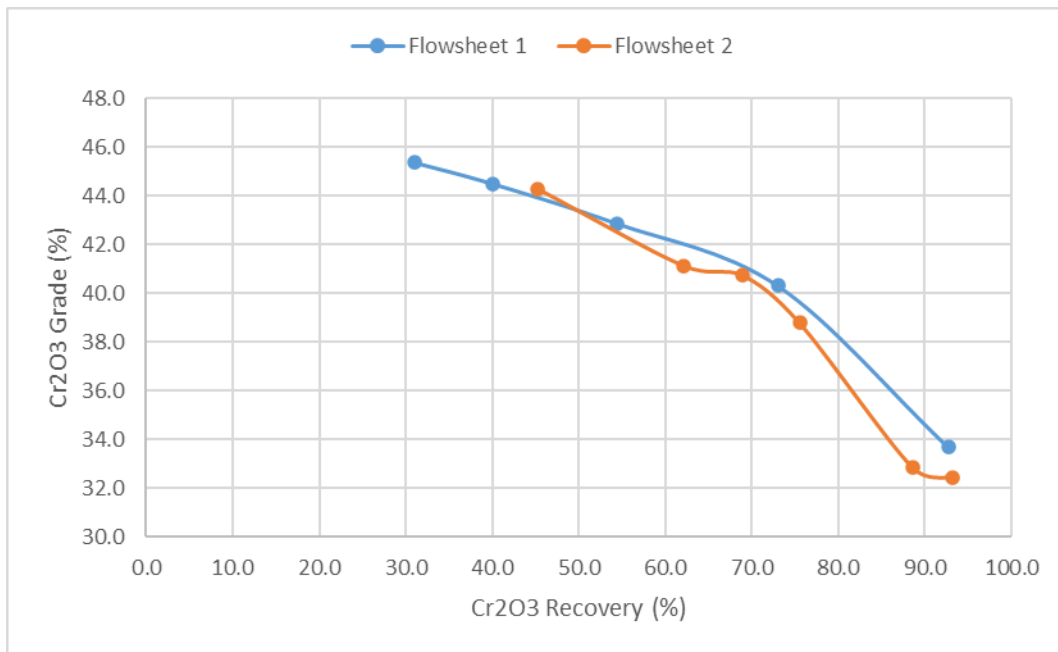
Material	Reef			Dunite
	Flotation	Leaching	Overall	Flotation
Platinum	78 - 82	0 - 5	78 - 83	70 - 76
Palladium	75 - 81	70 - 84	93 - 97	70 - 73
Gold	65 - 75	89 - 98	96 - 99	80 - 86
Nickel	37 - 45	-	37 - 45	35 - 45

### 5.1.9 | Chromite Concentration

Testwork has demonstrated the ability to produce a saleable chromite concentrate from the flotations tails of PGM concentration. Chromite recovery work on PGM flotation tails was conducted using the below techniques:

- Flowsheet 1 - Chromite rougher-cleaner flotation.
- Flowsheet 2 - Two stage Wet High Intensity Magnetic Separation (“WHIMS”) with an intermediate regrind followed by Falcon Separation on both WHIMS stages tails and a Chromite rougher only flotation on the second stage WHIMS concentrate.

A chromite grade recovery profile from both of the tested chromite upgrade routes is shown in Figure 5-1.



**Figure 5-1 | Flowsheet 1 and 2 Cr<sub>2</sub>O<sub>3</sub> Grade and Recovery Profiles**

Both flowsheets achieved similar Cr<sub>2</sub>O<sub>3</sub> grade and recovery profiles indicating that each of the tested unit operations is equally effective at recovering chromite and it’s the chromite mineral liberation properties that defines the grade and recovery profile. The intermediate regrind utilised in Flowsheet 2 between the two WHIMS stages (P<sub>80</sub> of 30 µm to a P<sub>80</sub> of 25 µm) had minimal impact on improving the Cr<sub>2</sub>O<sub>3</sub> grade recovery profile when compared to Flowsheet 1 which didn’t include a regrind stage. Flowsheet 1 is a simpler flotation only route which is likely to have both lower capital and operating costs compared to the more unit and energy intensive Flowsheet 2 process route.

### 5.1.10 | Downstream Processing

The Company is exploring the potential to further process PGM concentrate utilising a hydrometallurgical process to produce upgraded metal products. The potential benefits from hydrometallurgical processing include improved payabilities, reduced logistics costs, and less sensitivity to deleterious elements. These potential benefits have resultant benefits in mine planning and mine inventory. There are also benefits associated with reducing carbon emissions associated with production.

Future Metals has engaged with Lifezone Metals as a technology partner to further explore the amenability of utilising their hydrometallurgical (“hydromet”) technology for further upgrading of Panton concentrate. The Lifezone Metals’ hydromet process replaces the smelting process, extracting contained metals in concentrate through hydromet processes to produce a suite of metals products suitable for direct sale to refiners.

Lifezone Metals’ hydromet technology is at various stages of development globally.

Test work has previously been undertaken on the Panton concentrate utilising Lifezone Metals’ hydromet process with concentrate specifications and metal recoveries shown below.

**Table 5-5 | Panton Concentrate Head Assays and Metal Recoveries**

Sample	Pt (g/t)	Pd (g/t)	Au (g/t)	Ni (%)	Cu (%)	Co (g/t)	Fe (%)	S (%)
Concentrate Grade	55.6	65.9	5.6	3.3	0.9	916.0	12.9	4.4
Recovery	99.3	99.3	92.2	99.0	99.4	93.2	60.7	96.6

Alternative downstream processing technologies include the Platsol process developed by SGS Canada Inc.

The Company will continue to evaluate the costs and benefits associated with downstream integration for the Panton Project. Evaluation of downstream integration is not included in this Scoping Study.

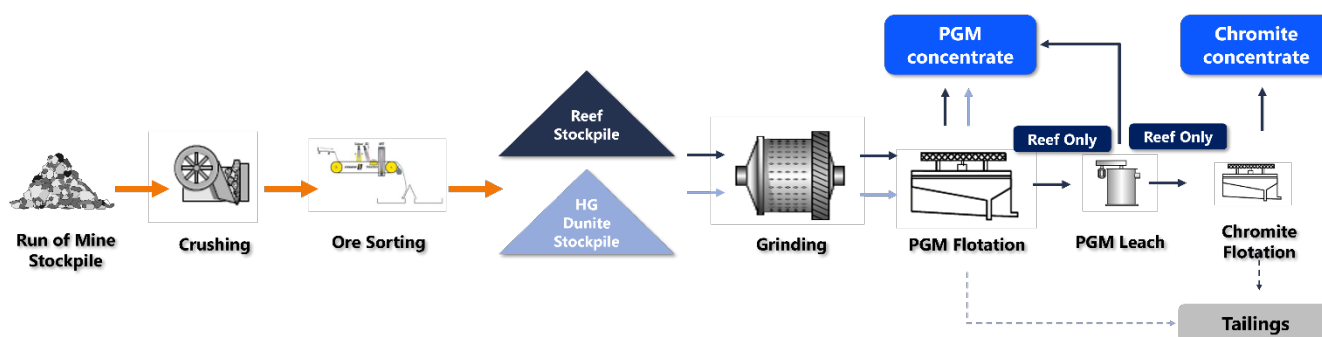
## 5.2 | Process Description

### 5.2.1 | Summary

The Panton process plant has been designed to treat both high-grade Reef ores and lower grade Dunite ores at a combined throughput rate of 1.25Mtpa from the Panton deposit. The plant is expected to operate for 9+ years, with an average of approximately 40:60 Reef to Dunite ore feed ratio.

In addition to the PGM<sub>3E</sub> production, chromite concentrate grading 40% Cr<sub>2</sub>O<sub>3</sub> will be produced.

The flowsheet consists of feed preparation, ore sorting, comminution, PGM flotation, PGM RIL cyanide leach and recovery of a chromite flotation concentrate from the Reef RIL tails.



**Figure 5-2 | Simplified Block Flow Diagram of the Panton Circuit**

To generate the size fractions suitable for ore sorting, and to minimise the production of fines (-10mm) which are not suitable for sorting, a two-stage jaw crushing circuit operating in closed-circuit with a primary screen has been selected

The ROM ore feed will be a blend of Reef and Dunite ores which will be stage crushed in primary and secondary jaw crushers operating in closed circuit with a primary double deck vibrating screen.

Each of the two coarse fractions (-75 +25mm & -25 +10mm) will be processed separately through dedicated ore sorters to separate the more dense and higher grade PGM and Cr<sub>2</sub>O<sub>3</sub> Reef ores from the less dense lower grade Dunite ores. The primary -10mm fines product will bypass the ore sorting step and be conveyed directly to the Reef grinding circuit feed surge bin.

The coarse and fine Reef (accepts) ore sorting products will be combined to be processed in the dedicated Reef secondary crushing circuit. Likewise, the coarse and fine Dunite (rejects) ore sorting products will be combined to be processed in dedicated Dunite secondary crushing circuit. The parallel secondary crushing circuits prepare feed for the two parallel grinding circuits.

The Reef and Dunite grinding circuits each consist of a ball mill and Vertimill circuit and target grind size at P80 30µm.

The Reef and Dunite PGE flotation circuits each consist of a rougher-scavenger arrangement with the combined rougher scavenger concentrate being thickened, filtered and stored in a concentrate storage shed for shipment.

The Reef PGE flotation tails stream is fed to a RIL cyanide leach circuit to recover the residual palladium and gold not recovered to the PGM flotation concentrate. The cyanide soluble palladium and gold is loaded onto a resin which is eluted into a concentrated solution and electrowon to generate a palladium and gold bearing concentrate which is filtered and dried.

The RIL cyanide leach tails are pumped through a bank of deslime cyclones to remove the ultra-fine (<10 µm) particles with the coarse underflow fed to the Reef Chromite flotation circuit. The circuit will consist of a rougher/scavenger flotation arrangement with the concentrate to be thickened, filtered and stored in a concentrate storage shed for shipment.

The final tails products will consist of the Dunite PGM flotation tails, Reef deslime cyclone overflow and Reef Chromite flotation scavenger tailings to be combined and thickened prior to being pumped to a TSF.

The overflow streams from the three thickeners will all report by gravity to a process water pond, while the TSF decant will be pumped back to the process water pond.

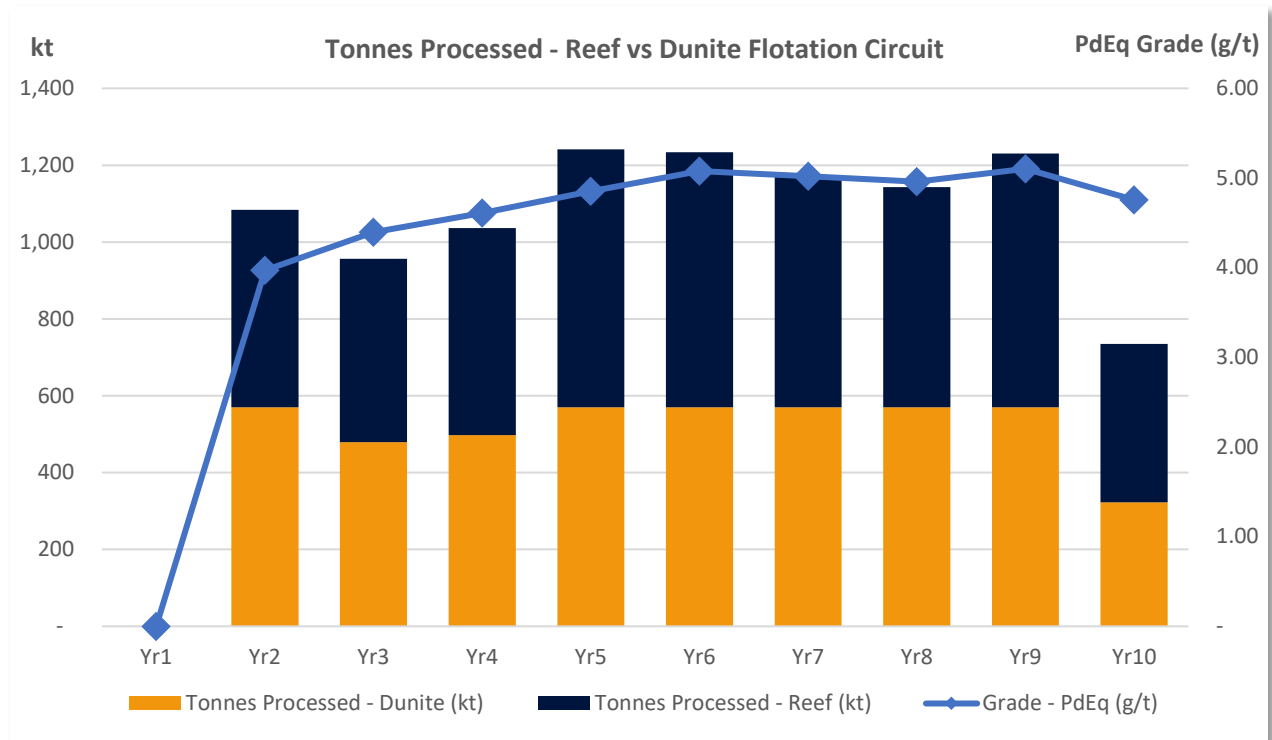


## 5.2.2 | Processing Physicals and Assumptions

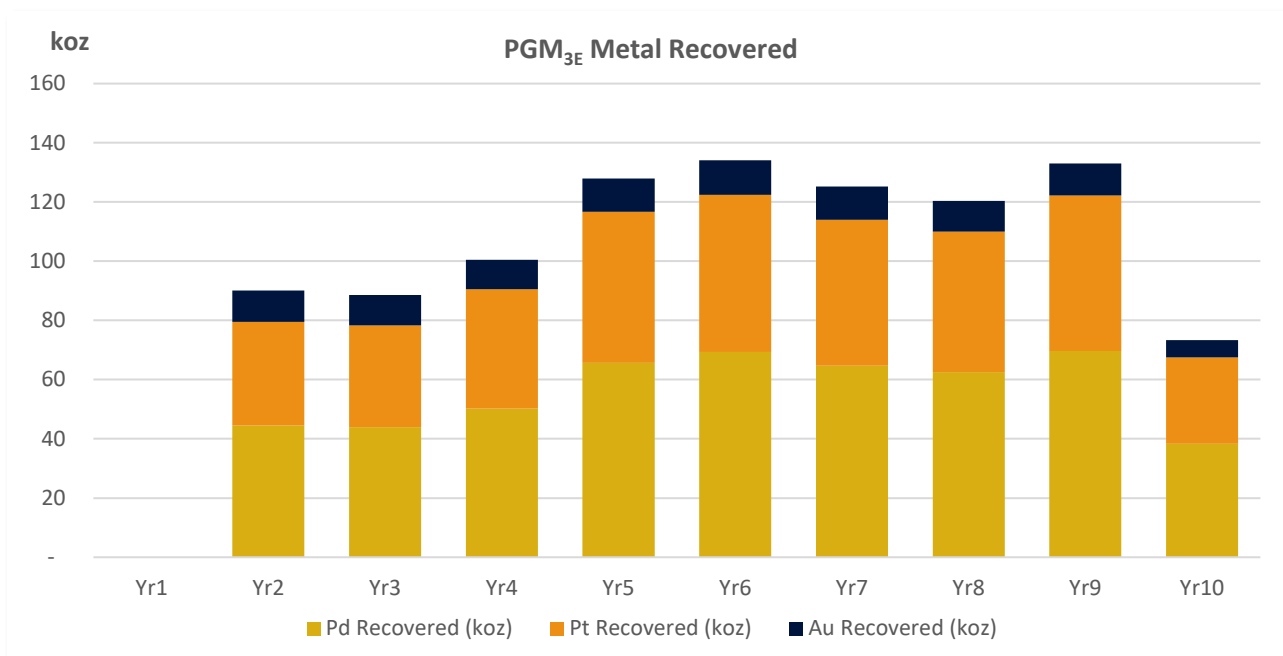
The processing and metallurgical assumptions utilized for the Scoping Study are set out below. These assumptions are based on the results of testwork to date.

**Table 5-6 | Processing Assumptions**

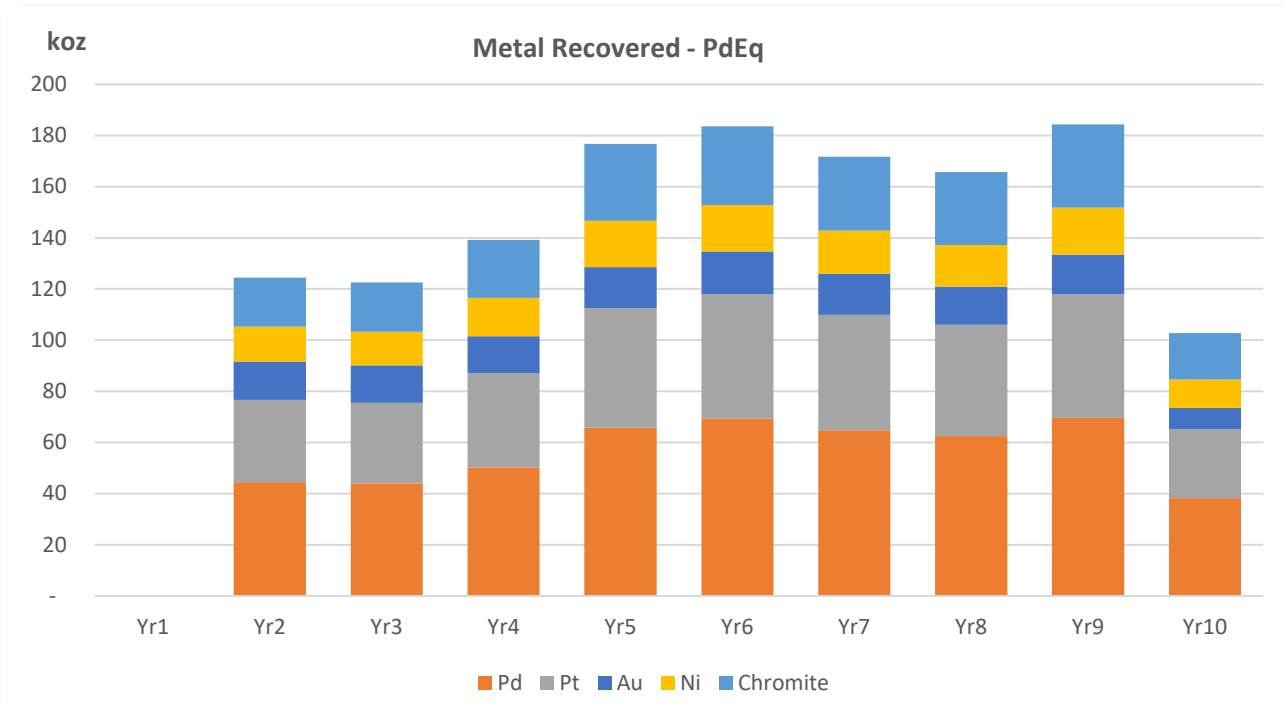
<b>Processing Physicals</b>		<b>Reef</b>	<b>Dunite</b>	<b>Total</b>
Material Processed	<i>kt</i>	5,110	4,721	9,830
Processing Years (LOM)	<i>years</i>	8.5	8.5	8.5
Max. Processing Rate	<i>Ktpa</i>	680	570	1,250
PGM <sub>3E1</sub> Grade (LOM Avg)	<i>g/t</i>	5.45	1.60	3.60
Nickel Grade (LOM Avg)	<i>%</i>	0.28%	0.22%	0.25%
Chromite Grade (LOM Avg)	<i>%</i>	12.60%	3.01%	8.00%
PdEq Grade (LOM Avg)	<i>g/t</i>	7.16	2.18	4.77
<b>Flotation Recovery</b>				
Recovery - Pt (LOM Avg)	<i>%</i>	81.9%	75.6%	80.5%
Recovery - Pd (LOM Avg)	<i>%</i>	77.2%	73.1%	76.4%
Recovery - Au (LOM Avg)	<i>%</i>	74.9%	85.8%	78.4%
Recovery - Ni (LOM Avg)	<i>%</i>	42.9%	35.0%	39.6%
<b>Resin-in-Leach Circuit</b>				
Material Treated	<i>Kt</i>	4,946	-	4,946
PGM <sub>3E1</sub> Grade (LOM Avg)	<i>g/t</i>	1.18	-	1.18
Recovery - Pt (LOM Avg)	<i>%</i>	0.0%	-	0.0%
Recovery - Pd (LOM Avg)	<i>%</i>	84.0%	-	84.0%
Recovery - Au (LOM Avg)	<i>%</i>	97.0%	-	97.0%
<b>Total PGM Recovery</b>				
Recovery - Pt (LOM Avg)	<i>%</i>	81.9%	75.6%	80.5%
Recovery - Pd (LOM Avg)	<i>%</i>	96.4%	73.1%	91.8%
Recovery - Au (LOM Avg)	<i>%</i>	99.2%	85.8%	94.9%
<b>Chromite Circuit</b>				
Material Treated	<i>Kt</i>	4,946	-	4,946
Recovery – Chromite (LOM Avg)	<i>%</i>	73.0%	-	73.0%
<b>Concentrate Production</b>				
Total PGM Concentrate Produced	<i>Kt</i>		379	
PGM <sub>3E1</sub> Concentrate Grade (LOM Avg)	<i>g/t</i>		81	
Nickel Concentrate Grade (LOM Avg)	<i>%</i>		2.7%	
Total Chromite Concentrate Produced	<i>Kt</i>		1,141	
Chromite Concentrate Grade (LOM Avg)	<i>%</i>		40%	
<b>Summary of Recovered Metal</b>				
Recovered PGM <sub>3E1</sub> in Concentrate (LOM Avg)	<i>kozpa</i>		117	
Recovered Nickel in Concentrate (LOM Avg)	<i>ktpa</i>		1.2	
Saleable Chromite Concentrate (LOM Avg)	<i>ktpa</i>		134	
Recovered PdEq (LOM Avg)	<i>Kozpa</i>		161	



**Figure 5-3 | Tonnes Processed - Reef & Dunite - PdEq Grade**



**Figure 5-4 | Metal Recovered - PGM<sub>3E</sub>**



**Figure 5-5 | Metal Recovered – PdEq**

### 5.2.3 | Palladium Equivalent

References to PdEq within this Scoping Study utilize the same recovery and price assumptions set out in Chapter 5 and Chapter 10 Financial Evaluation. References to PdEq in Chapter 3 Mineral Resource Estimate are based on Assumptions set out in Appendix A.

Metal recoveries used in the PdEq calculations for each element are based on metallurgical test work undertaken to date at Panton.

Metal prices used are based on consensus forecasts of analysts estimates. The chromite concentrate price used is spot pricing of South African chrome ore (40-42%, CIF South Africa).

Metal recoveries used in the palladium PdEq calculations are shown below:

- Reef: Palladium 96.4%, Platinum 81.9%, Gold 99.2%, Nickel 43% and Chromite 73%
- Dunite: Palladium 73.1%, Platinum 75.6%, Gold 85.8% and Nickel 35%

Assumed metal prices used are also shown below:

- Palladium US\$1,400/oz, Platinum US\$1,285/oz, Gold US\$2,000/oz, Nickel US\$20,000/t and US\$282/t for chromite concentrate (40-42% Cr<sub>2</sub>O<sub>3</sub> CIF South Africa)

Metal equivalents were calculated according to the follow formulae:

- Reef: PdEq (Palladium Equivalent g/t) = Pd(g/t) + 0.7798 x Pt(g/t) + 1.47066 x Au(g/t) + 1.98199 x Ni(%) + 0.11861 x Cr<sub>2</sub>O<sub>3</sub> (%)
- Dunite: PdEq (Palladium Equivalent g/t) = Pd(g/t) + 0.94925 x Pt(g/t) + 1.67676 x Au(g/t) + 2.12746 x Ni(%)

## Chapter 6 | Product Marketing & Offtake Strategy

The Project is expected to produce a PGM concentrate and chromite concentrate for sale to smelters and traders. The indicative concentrate specifications for payable metal are as follows:

- A platinum-palladium-nickel-gold concentrate (PGM concentrate), indicatively grading ~80g/t PGM<sub>3E</sub> and ~3% nickel; and
- A chromite concentrate, indicatively grading 40% Cr<sub>2</sub>O<sub>3</sub>.

Potential exists for the inclusion of copper, cobalt, rhodium and iridium by-product credits into the PGM concentrate, pending further testwork and optimisation during the Pantom PFS.

The Company is in discussions with several traders and smelters to assess potential offtake and likely terms. No offtake agreements have been entered into for the Project to date and as such the PGM concentrate and the chromite concentrate are 100% uncommitted.

### PGM Concentrate

Based on testwork completed to date, Pantom's PGM concentrate is anticipated to have the specification range shown in Table 6-1.

**Table 6-1 | Estimated PGM Concentrate Specification**

		Reef	Blended
Concentrate Grade – Pt	<i>g/t</i>	60	32
Concentrate Grade – Pd	<i>g/t</i>	81	42
Concentrate Grade – Au	<i>g/t</i>	12	8
<b>Concentrate Grade - PGM<sub>3E</sub></b>	<i>g/t</i>	<b>153</b>	<b>81</b>
Concentrate Grade – Ni	<i>%</i>	3.8%	2.7%

Modelling assumptions (see Table 6-2) for concentrate offtake have been developed through early-stage discussions with potential customers and indicative proposals received. Further negotiations and refinement of offtake terms is scheduled to continue during the PFS stage of the Project.

**Table 6-2 | Offtake Assumptions for each metal in the PGM concentrate**

	Payability (%)	Treatment Charge (US\$/dmt conc.)	Refining Charge (US\$/oz)
Palladium	92%	90	25
Platinum	92%		25
Gold	80%		25
Nickel	55%		

## Chromite Concentrate

Chromite is primarily used for the production of ferrochrome, which is essential to the production of stainless steel. The global market for chromite is driven by stainless steel demand, which has broad applications in the construction and automotive industries.

In 2022, the size of the global chromite concentrate market was US\$4.9 billion, and is forecast to grow at an average compound growth rate of 2.3% through to 2030<sup>2</sup>.

South Africa is the leading global producer and exporter of chromite and holds the largest resources and reserves. A significant portion of South Africa's chromite concentrate production is from PGM mines, where chromite is a by-product.

China is the largest importer of chromite concentrate globally. China has minimal chromite resources and reserves and heavily relies on imports, primarily from South Africa. In 2012, China surpassed South Africa as the largest producer of ferrochrome, driven by its growing stainless steel industry.

Based on testwork completed to date, Panton's Cr<sub>2</sub>O<sub>3</sub> concentrate is anticipated to have the specification range show in Table 6-3.

**Table 6-3 | Estimated Cr<sub>2</sub>O<sub>3</sub> Concentrate Specifications**

Concentrate Grade - Cr <sub>2</sub> O <sub>3</sub>	%	39 – 42
Concentrate Grade - FeO	%	28 – 31
Concentrate Grade – MgO	%	8 – 9.5
Concentrate Grade - Al <sub>2</sub> O <sub>3</sub>	%	10 – 12
Concentrate Grade - SiO <sub>2</sub>	%	3 – 4
Concentrate Grade - CaO	%	0.1

Based on early-stage discussions with potential customers and indicative proposals received, Panton's chromite concentrate represents a potential attractive option for feed into existing ferrochrome operations in both China and South Africa. The Company has modelled a chromite concentrate grade of 40% Cr<sub>2</sub>O<sub>3</sub> and applied a 95% payability assumption, based on pricing utilizing the 40-42% Cr<sub>2</sub>O<sub>3</sub> CIF South Africa benchmark. Modelling of chromite concentrate offtake terms has been developed through these discussions. Further negotiations and refinement of offtake terms is scheduled to continue during the PFS stage of the Project.

<sup>2</sup> <https://www.skyquestt.com/report/chromite-ore-market>

## Chapter 7 | Infrastructure and Services

### 7.1 | Electricity

Future Metals' engaged Mainsheet Capital to conduct a commercial and strategic evaluation of power sourcing options for Panton. The objective of the study was to minimise power costs and related emissions over the life of the project. The study devised an executable pathway for the Company to achieve low cost, low emission power from commencement of the Project and preserves optionality to decarbonise its future fleets.

Electricity from the Ord River Hydro Power Plant is the most attractive from a variable cost and emissions perspective, however the capital costs to reticulate down to the Panton site are uncompetitive. An LNG solution offers material fuel savings and lower emissions compared to diesel although it comes with additional technical complexity. Incorporating renewable energy which has a lower cost than the variable cost of thermal generation will reduce overall power costs and emissions. Solar will be economic to incorporate under all sensitivities modelled. Wind generation is dependent on local environmental conditions and capital installation cost, both of which will be assessed in the PFS. A delivered cost of \$230 to \$250/MWh is expected without wind generation. This cost could be decreased to \$200/MWh if favorable wind resources are available.

Future Metals' will be undertaking analysis of electrification of some of the mining fleet during the PFS. This may facilitate a substantial conversion of diesel fuel consumption to electrical demand, which is expected to deliver substantial cost savings and much lower carbon emissions.

### 7.2 | Water supply

Regionally, groundwater flow is expected to occur in a north-westerly direction, following the natural gradient of the topography. Regional aquifers typically comprise fractured rock, with alluvial aquifers being relatively thin and forming only minor, intermittent aquifers during the wet season. A review by RPM Global of regional bore water quality data via DWER's Water Information Reporting database indicates that regional water quality is typically fresh, slightly alkaline, bicarbonate rich and low in common toxicants such as dissolved metals and metalloids. Regional groundwater is commonly used as a source of stock drinking water and a number of pastoral bores are located within 5km of the Project.

Information on the local hydrogeological characteristics is based on a study associated with a previous bankable feasibility study for the Project. The study was undertaken in July 2003 by Knight Piésold Pty Ltd (KP) and sought to characterise the local groundwater regime and understand mine dewatering requirements and potential associated impacts of dewatering on the adjoining aquifers and springs in the surrounding areas.

The 2003 KP study comprised two phases. An initial phase was undertaken to develop bores and establish maximum sustainable pump rates at 11 predetermined locations. The locations were selected to intercept major and minor bedrock fault structures, which represent the main locally water bearing structures.

This initial phase of hydrogeological evaluation determined that the fault systems west and south of the Project contain confined aquifers as evident by the static water levels within the bores occurring above the depth at which water strikes occurred. Most bores (8 out of 11) were found capable of yielding between 13 and 33 litres per minute (0.8 to 2.0 m<sup>3</sup>/hour). A single bore located south of the existing camp area yielded 65 litres per minute, however this was determined to be unsustainable given the observed lowering of the water table by 2.7m. The remaining bores were generally low yielding, producing less than 10 litres per minute.

Further drilling of bores and pump tests are planned to occur during the PFS. Provision has been made in the economic evaluation model for costs associated with the construction and operation of a remote borefield and pipeline.



### 7.3 | Transport Infrastructure

The Project is located adjacent to a bitumen double lane highway linking the planned mine area to multiple WA export ports capable of exporting either bulk or containerised concentrate. Preliminary transport studies have confirmed that the port of Wyndham is viable for the handling, import and export of both mining consumables, concentrate products and metal in solution products. Wyndham, being one of the northernmost ports in Australia, is favourably located for shipping Panton’s concentrate products into key markets. Panoramic Limited exports concentrate in similar quantities to Panton’s future planned operations out of Wyndham, and while in operation, the Ridges iron ore mine exported significantly higher quantities of product out of the port too.

Unlike many remote mining operations, the Panton Project will not require the construction of long haulage roads to the public road network or an airport. A fly-in fly-out workforce will utilise the nearby Halls Creek air transport infrastructure and some employees will drive-in drive-out from Halls Creek, Kununurra and surrounding areas.

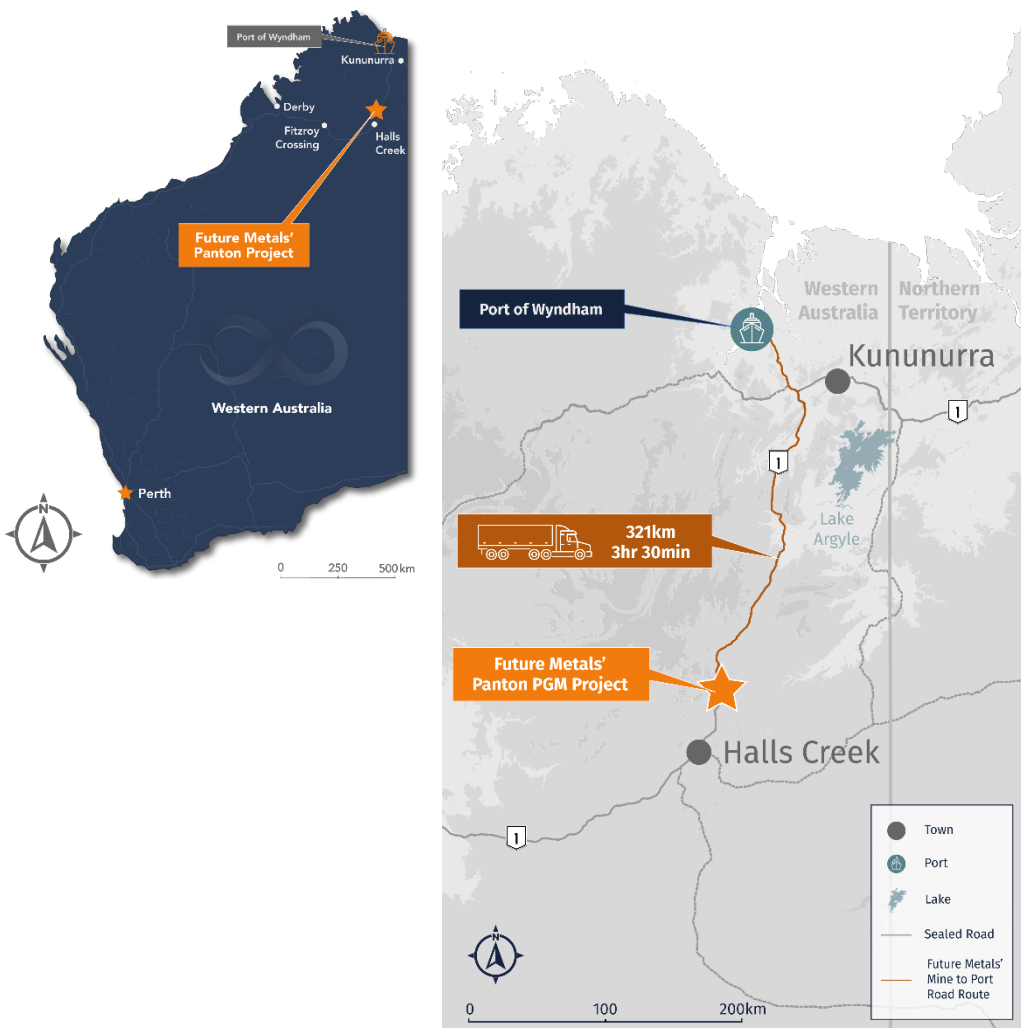


Figure 7-1 | Road from Panton to Wyndham Port



Figure 7-2 | Wyndham Port



Figure 7-3 | Wyndham Port proximity to key markets

## Chapter 8 | Pre-Production and Sustaining Capital Estimates

### 8.1 | Pre-Production Capital

Pre-production capital includes all upfront expenditure associated with the processing plant, non-process infrastructure including camp, borefield, initial TSF instalment and initial underground mine infrastructure such as portals, fans and substations. The estimate also includes open pit mining costs for material mined ahead of the processing plant commissioning date.

Processing plant and non-process infrastructure estimates have been provided by IMO. The capital cost estimates are presented in Q4 2023 A\$ terms to an accuracy of +/- 35%. A contingency of 15% has been applied to the estimates. The basis for the estimates are primarily factored cost estimates from IMO's databases, quotes from equipment manufacturers and from similar operations in WA.

**Table 8-1 | Capital Cost Estimates**

Area Description	1,250ktpa (A\$m)
Processing Plant:	<b>146</b>
Comminution and PGM flotation	117
Flotation tails leach	7
Chromite flotation	8
Other Process Infrastructure	14
Open Pit Mining	21
Non-Process Infrastructure	34
<b>Direct Total</b>	<b>201</b>
Indirect Costs	33
Contingency	32
<b>Total</b>	<b>267</b>

### 8.2 | Sustaining Capital

Sustaining capital includes underground mine development not directly associated with extraction of material, ongoing maintenance of the processing plant and progressive expansion of the TSF. Underground mine development capital is provided by ABGM. Ongoing maintenance of the processing plant is assumed as 2.5% per annum two years after construction completion. Deferred cost of expansion of the tailings storage facility has been provided by IMO. The Company has also included A\$3m per annum for infill drilling costs from Year 5.

**Table 8-2 | Sustaining Capital Cost Estimates**

Area Description	1,250ktpa (A\$m)
Underground Mine Development	88
Process Plant and NPI	35
Tailings Storage Facility	15
Infill Drilling	11
<b>Total</b>	<b>148</b>

## Chapter 9 | Operating Cost Estimates

Operating cost estimates include all costs directly associated with mining and processing, as well as delivering product to customers. Mining costs are provided by ABGM and have been costed on the basis of employing a mining contractor model utilizing a first principles build-up of costs based on comparable operations in WA. Processing costs are provided by IMO and are based on external quotes and internal databases. Processing costs include internal general and administration costs ("G&A") associated with the processing plant operations. An additional G&A estimate has been assumed based on comparable operations and recent studies on projects in WA. Logistics costs are based on quotes from specialist consultants, actual costs for other operations and recent studies in WA.

**Table 9-1 | Operating Cost Estimates**

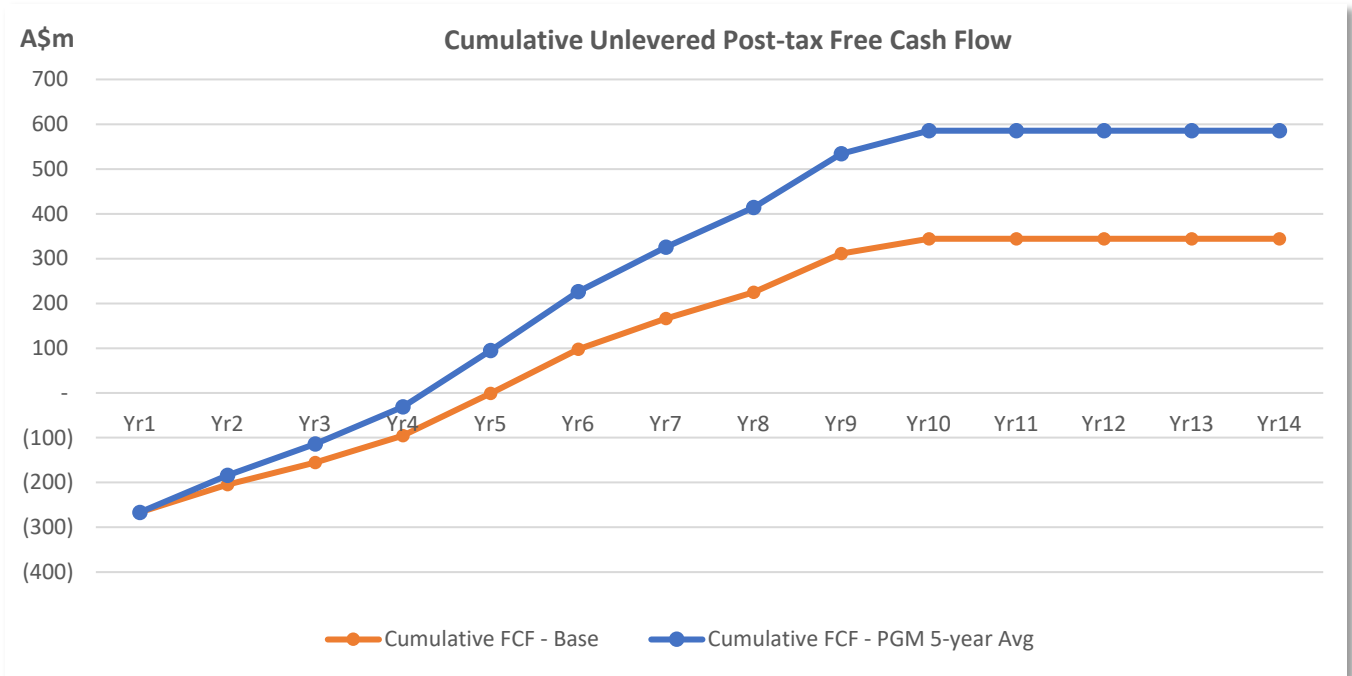
Area Description	1,250ktpa (A\$/t processed)
Open Pit Mining	26.7
Underground Mining	97.4
Processing:	<b>37.6</b>
Comminution and PGM flotation	25.7
Flotation tails leach	5.7
Chromite flotation	6.1
General and Administration	5.0
Logistics	12.1
<b>Total (Underground)</b>	<b>152.1</b>
<b>Total (Open Pit)</b>	<b>81.3</b>

## Chapter 10 | Financial Evaluation

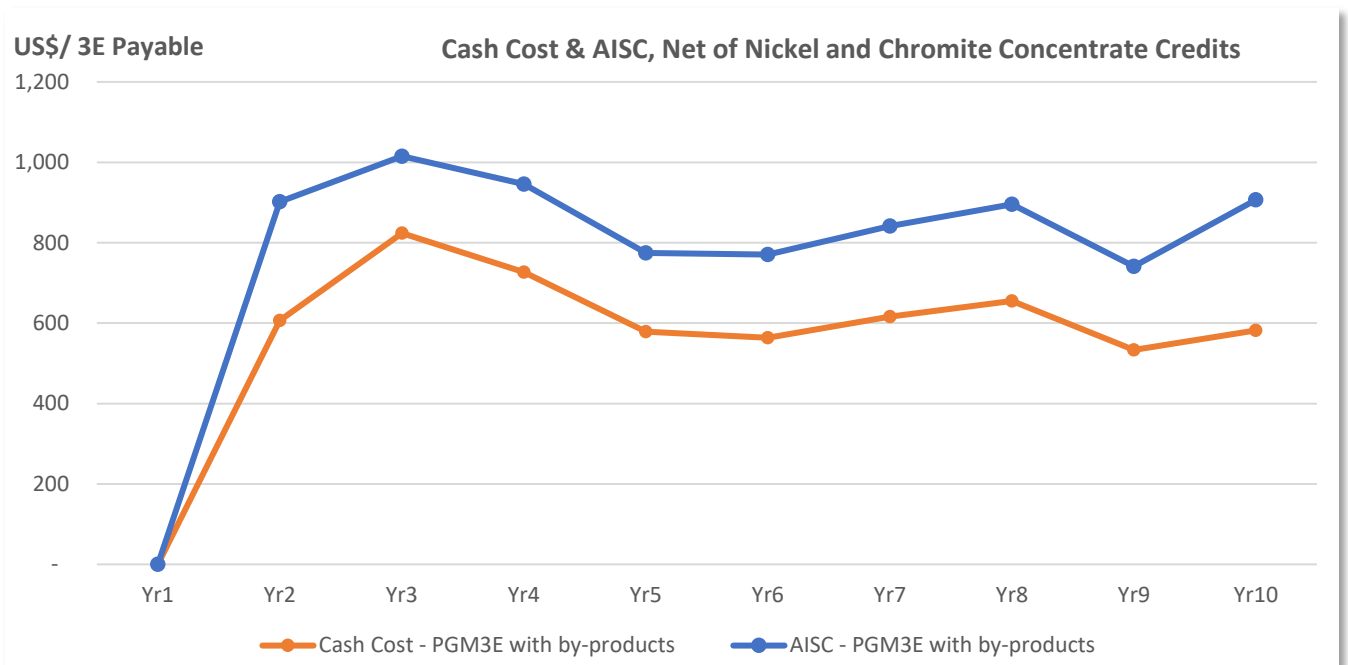
The Company's financial evaluation demonstrates a robust Project with a strong earnings profile and positive valuation metrics. Cash costs and AISC (net of by-product credits) of US\$624/oz and US\$851/oz PGM<sub>3E</sub> place the Project in the 2<sup>nd</sup> quartile of the PGM cost curve (see Figure 10-3), providing financial robustness and ensuring positive free cash flow generation through sustained depressed price environments.

**Table 10-1 | Financial Evaluation Summary**

Area Description	Unit	1,250ktpa	
		Base Case	PGM 5-year Avg Case
<b>Costs (LOM Avg.)</b>			
Mine Site Cash Costs	US\$/oz PGM <sub>3E</sub>	934	934
Logistics & Selling Costs	US\$/oz PGM <sub>3E</sub>	145	145
By-Product Credits (Ni, Chromite)	US\$/oz PGM <sub>3E</sub>	(455)	(455)
Total Cash Costs	US\$/oz PGM <sub>3E</sub>	624	624
All-in Sustaining Costs (AISC)	US\$/oz PGM <sub>3E</sub>	851	869
<b>Financial Metrics</b>			
Revenue (LOM Avg.)	A\$m	307	350
EBITDA (LOM Avg.)	A\$m	110	150
Operating CF (post-tax, LOM Avg)	A\$m	91	119
Operating FCF (post-tax, LOM Avg)	A\$m	72	100
Cumulative FCF (post-tax, LOM Avg)	A\$m	346	588
NPV <sub>8</sub> (pre-tax)	A\$m	250	477
NPV <sub>8</sub> (post-tax)	A\$m	153	311
IRR (pre-tax)	%	26%	39%
IRR (post-tax)	%	21%	31%
Payback Period (post-construction)	Years	4.0	3.2



**Figure 10-1 | Cumulative Free Cash Flow**



**Figure 10-2 | Cash Costs and All-in Sustaining Costs including by-product credits**



Supply of primary PGM production is dominated by South African and Russian operations. These operations supply >80% of PGM<sub>4E</sub> (Pd, Pt, Au & Rh) production (based on actual 2022 figures). Both of these countries are subject to material investment and operating risks:

- Russia is subject to international sanctions which has deterred Western investment into its mining industry, complicated sourcing of new and sustaining mining equipment for existing operations, and caused Western customers to seek alternative sources for metals such as PGMs.
- South Africa produced over 71% of primary platinum supply and 37% of primary palladium supply in 2022. Many of the operations in South Africa have operated for several decades, leading to deep mines and aging infrastructure which ultimately increases operating costs and sustaining capital. These issues are amplified by the chronic power availability issues in the country.

South African deposits also relatively rich in rhodium, with the recent profitability of many operations driven by very strong rhodium prices, which has since declined (2021: Rh price ~US\$29,000/oz vs 2023: Rh price ~US\$4,450/oz). This price decline, coupled with significant cost base inflation has the potential to lead to mine closures in the near to medium term.

Figure 10-3 shows the net total cash costs ("NTCC" or cash costs net of by-product credits) and stay-in-business capital ("SIB" or sustaining capital) on a PGM<sub>4E</sub> basis for global PGM producers (NTCC + SIB is equivalent to AISC net of by-product credits). The data is provided by SFA (Oxford) Ltd. NTCC includes smelting and refining costs to concentrate producers on a pro-rata basis. All production and cost information is based on CY2022 actual data. Assumed by-product metal prices are; Ni (US\$25,000/t), Cu (US\$10,105/t), Cr<sub>2</sub>O<sub>3</sub> concentrate (40-42% CIF South Africa) (US\$300/t), Ru (US\$550/oz) and Ir (US\$4,400/oz). Exchange rate assumptions applied are ZAR:USD 16.37 and AUD:USD 0.69. Payabilities and TC/RC's as set out in Chapter 6 have been accounted for in Panton's cost position. LOM average production figures have been used for Panton's position on the cost curve. NTCC and NTCC + SIB differ from other cost metrics stated in Chapter 10 given the difference in underlying by-product price, exchange rate and royalty assumptions.

Figure 10-3 shows that with the current PGM<sub>4E</sub> basket price of ~US\$1,250/oz, approximately 35% of PGM production is currently loss-making. This creates potential for a significant amount of supply to cease in the near to medium term unless prices increase. Panton's NTCC and NTCC + SIB of US\$678/oz and US\$789/oz demonstrate that if the Project was currently producing it would be in the middle of the 2<sup>nd</sup> quartile of PGM production, ensuring strong margins in a depressed price environment and making for an economically robust project capable of withstanding sustained downturns in the PGM price environment.

### Global PGM producer net total cash costs plus SIB per 4E oz, CY2022 US\$/4E oz

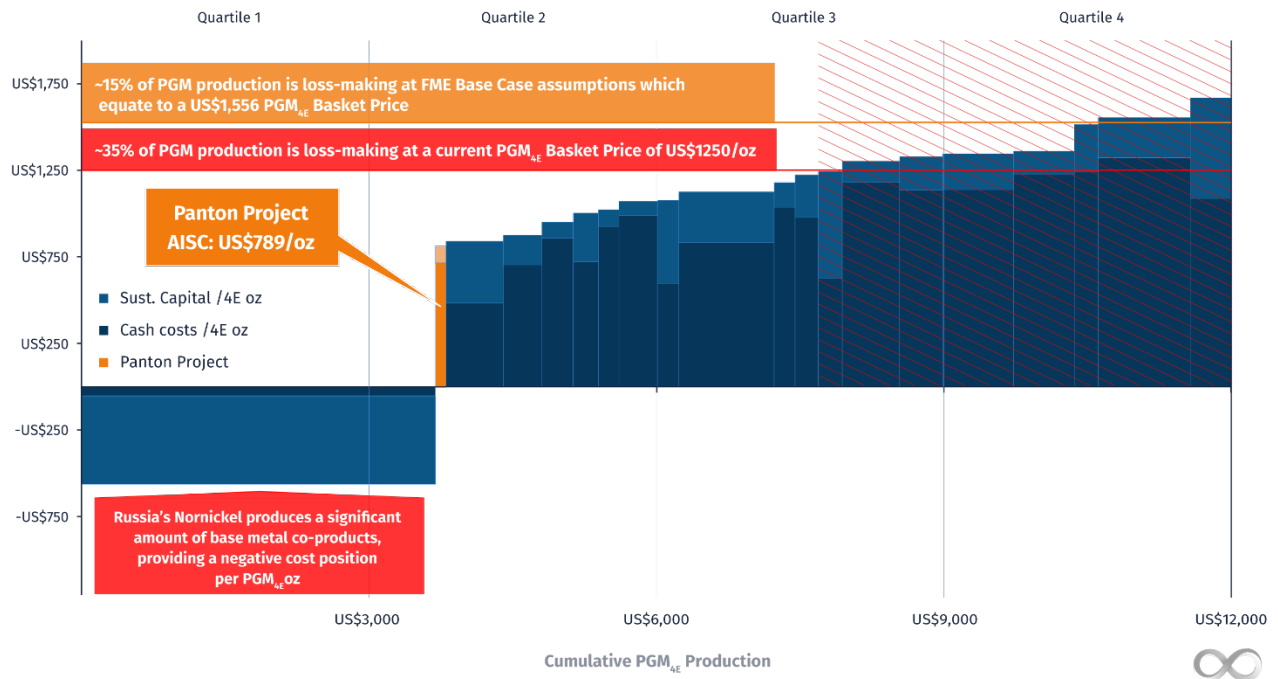


Figure 10-3 | PGM Industry Cost Curve and Panton Project positioning

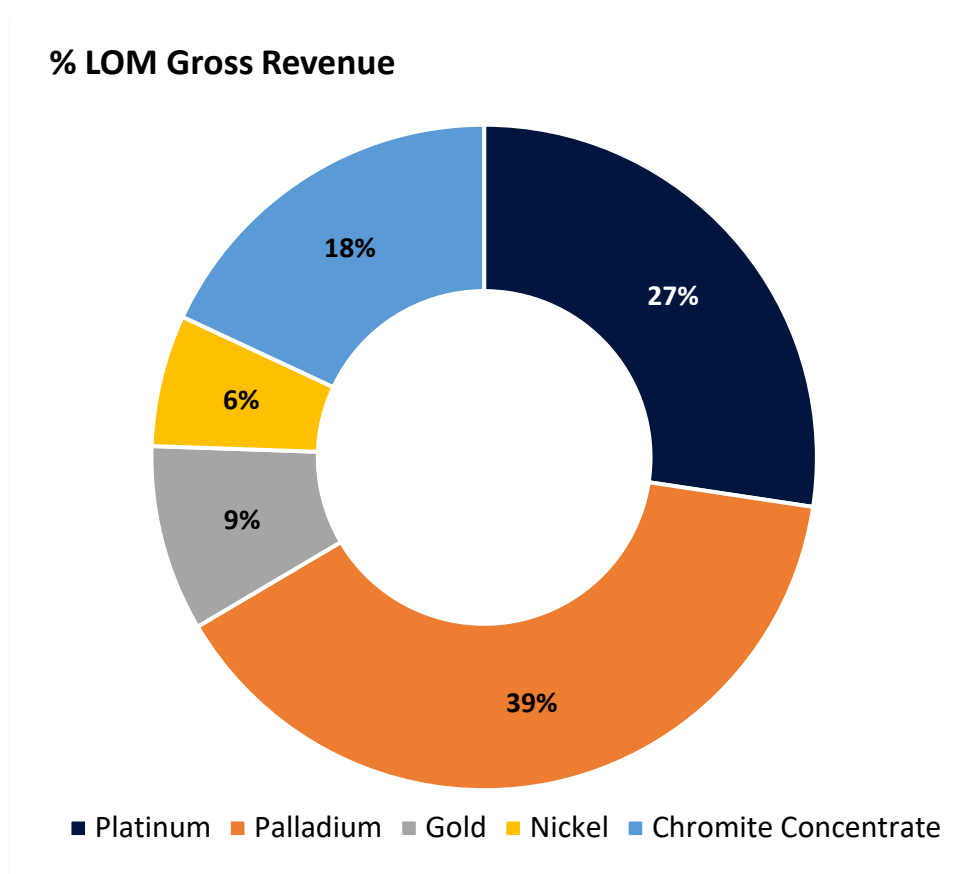


Figure 10-4 | Revenue Split by Commodity

**Table 10-2 | Financial Assumptions**

		Base Case	PGM 5-year Avg Case
<b>Commodity prices (LOM avg.)</b>			
Pt	US\$/oz	1,285	1,040
Pd	US\$/oz	1,400	2,115
Au	US\$/oz	2,000	1,870
Ni	US\$/t	20,000	20,000
Chromite Concentrate (40-42% CIF South Africa)	US\$/t	282	282
<b>Financial</b>			
WACC (real)	%		8%
Exchange rate	A\$/US\$		0.65
<b>Payability</b>			
Pd Payability	%		92
Pt Payability	%		92
Au Payability	%		80
Ni Payability	%		55
Chromite Concentrate Payability	%		95
Pd-Au Payability (tails product)	%		98
<b>Pre-Production Capital Estimates</b>			
Pre-Production Open Pit Mining	A\$m		21
Processing Plant	A\$m		146
Non-Process Infrastructure	A\$m		34
Indirects	A\$m		33
Contingency	A\$m		32
Total FID Pre-Production Capital	A\$m		267
Sustaining Capital (LOM avg.)	A\$m p.a.		18
<b>Operating Expenditure Estimates</b>			
Open Pit Mining	A\$/t processed		26.7
Underground Mining	A\$/t processed		97.4
Processing	A\$/t processed		37.6
G&A	A\$/t processed		5.0
Realisation Costs (Logistics, TC/RCs)	A\$/t processed		20.6
<b>Taxation &amp; Royalties</b>			
PGM and Chromite concentrate royalty rate	%		5.0%
Tails product royalty rate	%		2.5%
Private royalty rate (All metals)	%		0.5%
Private royalty rate (PGMs only)	%		2.0%
Corporate tax rate	%		30%

		Base Case	PGM 5-year Avg Case
Depreciable asset base at commencement of production*	A\$m		299
<b>Financial Outcomes</b>			
NPV <sub>8</sub> (pre-tax)	A\$m	250	477
NPV <sub>8</sub> (post-tax)	A\$m	153	311
IRR (pre-tax)	%	26%	39%
IRR (post-tax)	%	21%	31%
Payback Period	Years	4.0	3.2

\*Includes approximately A\$22m in tax losses as at 30 June 2023

## 10.1 | Sensitivity Analysis

The Project's NPV and IRR are most sensitive to changes in the PGM<sub>3E</sub> prices, operating costs and exchange rates, as shown in the figure below.

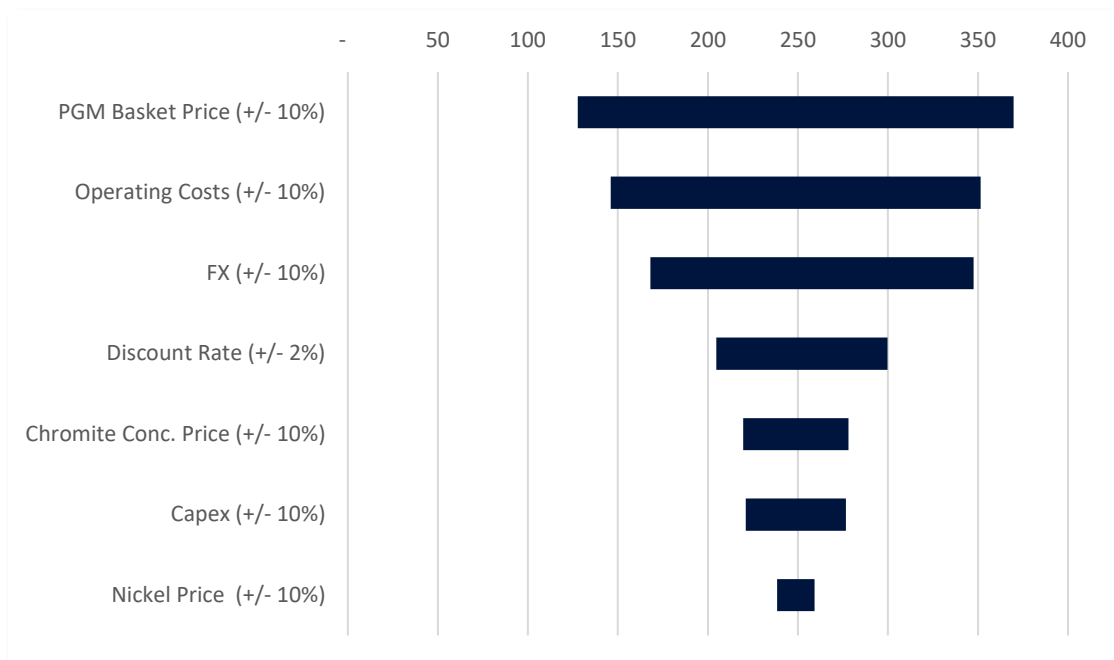


Figure 10-5 | Project NPV (pre-tax) Analysis

**Table 10-3 | Scenario Analysis - PGM<sub>3E</sub> Price Assumptions**

			Base Case		
Pt Price (US\$/oz)	1,085	1,185	1,285	1,385	1,485
Pd Price (US\$/oz)	1,200	1,300	1,400	1,500	1,600
Gold Price (US\$/oz)	1,800	1,900	2,000	2,100	2,200
Rhodium Price (US\$/oz)*	4,450	4,450	4,450	4,450	4,450
<b>Basket PGM<sub>4E</sub> Price (US\$/oz)</b>	<b>1,370</b>	<b>1,463</b>	<b>1,556</b>	<b>1,649</b>	<b>1,743</b>
<b>Pre-tax NPV<sub>8%</sub> (A\$m)</b>	78	164	250	336	422
<b>Pre-tax IRR (%)</b>	14%	20%	26%	31%	37%
<b>Payback Period</b>	5.0	4.4	4.0	3.7	3.4
<b>Annual Operating CF (A\$m)</b>	69	80	91	101	112
<b>LOM Operating CF (A\$m)</b>	588	679	771	862	953
<b>LOM FCF (A\$m)</b>	164	255	346	437	529
<b>Annual Operating FCF (A\$m)</b>	51	61	72	83	94

\*Note Rh not included in Panton Scoping Study economic evaluation. Included for comparison to South African PGM operations only

## Chapter 11 | 850ktpa Case Summary

The Company evaluated multiple different production scenarios as part of the Scoping Study. The 1,250ktpa Case is considered the optimal throughput rate due to enhanced unit economics. The below sets out the high-level outputs for the 850ktpa which requires less pre-production capital and lower underground mining productivity.

**Table 11-1 | Financial Assumptions**

		Base Case	PGM 5-year Avg
<b>Commodity prices (LOM avg.)</b>			
Pt	US\$/oz	1,285	1,040
Pd	US\$/oz	1,400	2,115
Au	US\$/oz	2,000	1,870
Ni	US\$/t	20,000	20,000
Chromite Concentrate (40-42% CIF South Africa)	US\$/t	282	282
<b>Financial</b>			
WACC (real)	%		8%
Exchange rate	A\$/US\$		0.65
<b>Payability</b>			
Pd Payability	%		92
Pt Payability	%		92
Au Payability	%		80
Ni Payability	%		55
Chromite Concentrate Payability	%		95
Pd-Au Payability (tails product)	%		98

		Base Case	PGM 5-year Avg
<b>Pre-Production Capital Estimates</b>			
Pre-Production Open Pit Mining	A\$m	21	
Processing Plant	A\$m	116	
Non-Process Infrastructure	A\$m	30	
Indirects	A\$m	26	
Contingency	A\$m	26	
Total FID Pre-Production Capital	A\$m	219	
Sustaining Capital (LOM avg.)	A\$m p.a.	14	
<b>Operating Expenditure Estimates</b>			
Open Pit Mining	A\$/t processed	26.7	
Underground Mining	A\$/t processed	104.6	
Processing	A\$/t processed	44.2	
G&A	A\$/t processed	5.0	
Realisation Costs (Logistics, TC/RCs)	A\$/t processed	20.7	
<b>Production Summary</b>			
Years of Underground Mining	Years	11	
Years of Open Pit Mining	Years	2	
Recovered PGM <sub>3E</sub> in Concentrate (LOM Avg)	kozpa	83	
Recovered Nickel in Concentrate (LOM Avg)	ktpa	0.8	
Saleable Chromite Concentrate (LOM Avg)	ktpa	95	
Recovered PdEq (LOM Avg)	Kozpa	114	
<b>Costs (LOM Avg.)</b>			
Mine Site Cash Costs	US\$/oz PGM <sub>3E</sub>	1,025	1,025
Logistics & Selling Costs	US\$/oz PGM <sub>3E</sub>	145	145
By-Product Credits (Ni, Chromite)	US\$/oz PGM <sub>3E</sub>	(455)	(455)
Total Cash Costs	US\$/oz PGM <sub>3E</sub>	715	715
All-in Sustaining Costs (AISC)	US\$/oz PGM <sub>3E</sub>	953	970
<b>Financial Outcomes</b>			
NPV (pre-tax)	A\$m	163	369
NPV (post-tax)	A\$m	96	241
IRR (pre-tax)	%	20%	33%
IRR (post-tax)	%	16%	27%
Payback Period	Years	5.1	3.8

## Chapter 12 | Project Funding Strategy

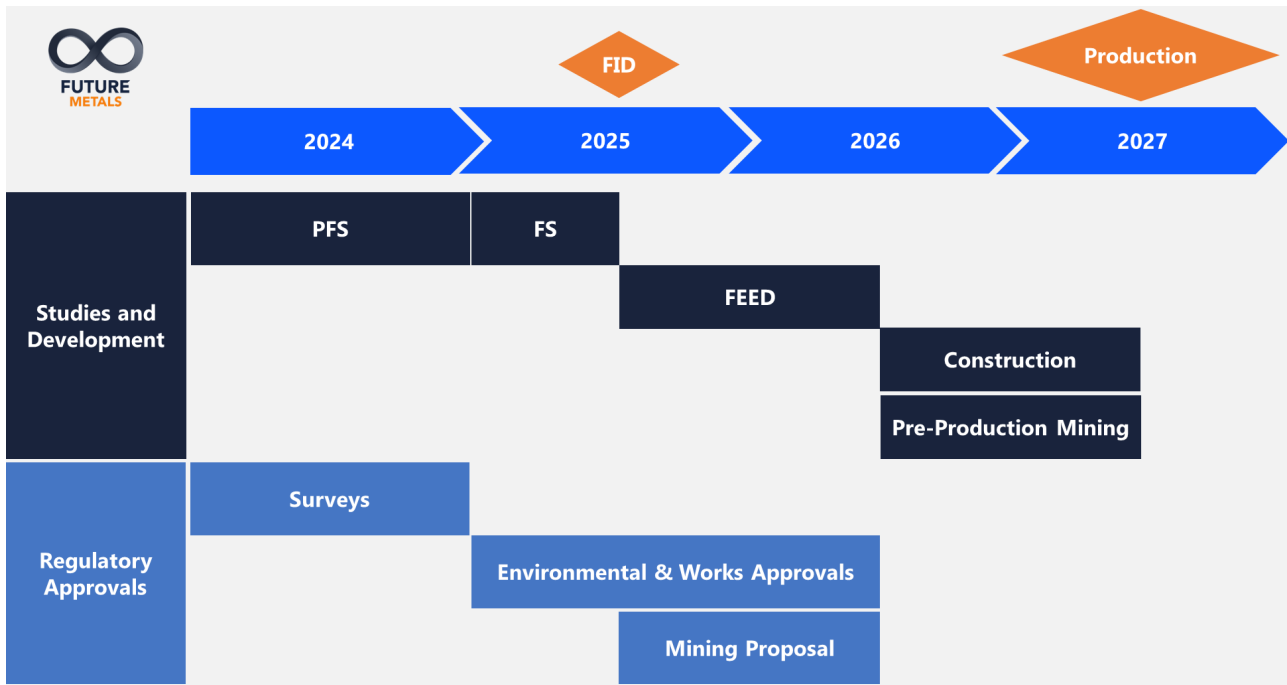
Pre-production funding of \$267m is required to achieve the range of outcomes indicated in the Scoping Study. This figure does not include the additional drilling and studies required to achieve a Final Investment Decision to mine. The Company is of the view there is a reasonable basis to believe that the requisite funding amount for the Project will be available when required. The grounds on which this reasonable basis is established include:

- The Project has strong technical and economic fundamentals which provide an attractive return on capital and generate robust cashflows under a range of commodity price assumptions, [even at currently depressed spot prices]. This provides a strong platform for attracting both equity, debt and offtake funding.
- The Project is located in Western Australia, a top tier mining & investment jurisdiction with a stable political and regulatory environment. This increases attractiveness for potential financiers given the reduced level of sovereign, legal, operational and financial risks.
- The Project is the highest grade PGM & chromite deposit in Australia, and one of the highest grade undeveloped PGM projects in the world. PGM supply is heavily concentrated in Russia and South Africa. The criticality of PGMs to multiple decarbonisation technologies, the significant risk of negative supply shocks, and the Project's location in a top tier western mining jurisdiction are expected to drive significant interest from a range of potential pools of capital. This includes non-dilutive government funding sources available for critical minerals projects in Western jurisdictions.
- The Company continues to engage with potential strategic partners who are interest in the Project due to the reasons stated above. The Company will progress these discussions which may ultimately lead to a partnership with a larger company with improved access to capital.
- The Company, its board and management team have a strong track record of raising equity and debt funds for development and operating projects.

There is no certainty that the Company will be able to source funding as and when required. Typical project development financing would involve a combination of debt and equity. It is possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares.



## Chapter 13 | Development Timeline and Forward Work Programme



**Figure 13-1 | Development Timeline**

Given the positive results of the Scoping Study, the Company plans to commence a PFS immediately, potentially as a sub-set of a Definitive Feasibility Study, in order to accelerate the Project towards being development-ready so as to capitalise on an improved pricing environment in the future. The PFS will broadly focus on the following areas:

- Optimisation of mine schedule, designs and overall mining rates
- Review of the MRE and infill drilling requirements
- Metallurgical optimisation and variability testing across comminution, PGM flotation, tailings leaching and chromite concentration
- Site layout including assessing the optimal location for the processing plant, camp, TSF and waste rock piles

During this period the Company will also complete environmental surveys through the wet and dry seasons to support completion of an environmental review document in order to initiate the regulatory approvals process (see Chapter 14).

## Chapter 14 | Environment, Social and Permitting

Future Metals is committed to the core principle of delivering value through sustainable development. The foundations of ESG are important to us, and we proactively uphold key responsibilities to ensure we are considered and transparent in all we do. With these foundations, we aim to build a roadmap to achieving economic, social and environmental sustainability in a balanced, mutually beneficial way for all stakeholders.

Future Metal's goal is to maximise the use of renewable energy to reduce carbon emissions and to provide economic opportunities for employees and local businesses. Careful management of environmental risks determined through studies and baseline assessments, in addition to community engagement, will be a priority of site-based and corporate teams.

Future Metals values the community in which it works and takes seriously its community and environmental obligations. Our social and community values are demonstrated in the relationships we share with the Traditional Owners of the land the Project is located on, the economic and employment opportunities we provide, and engagement we have on environmental activities such as rehabilitation, water use and waste management.

### 14.1 | Project Approvals

The Panton project area sits on three granted Mining Leases; M80/103, M80/104 and M80/105 covering 22.58km<sup>2</sup>. The entire mine footprint, processing plant and non-process infrastructure including tailings storage facility are planned to sit within the Mining Lease area.

Future Metals intends to refer the Project to the WA Environmental Protection Authority ("EPA") under Section 38 of the Environmental Protection Act 1986 (EP Act).

Referral may be required to the Commonwealth Department of Agriculture, Water and Environment ("DAWE") under the Environmental Protection and Biodiversity Conservation ("EPBC") Act 1999 depending on the presence of threatened and migratory species that are considered Matters of National Environmental Significance ("MNES"). Prior environmental surveys and desktop due diligence do not suggest the Project will trigger this.

Once the referral to the EPA is lodged, the EPA may confirm that the Project will be assessed under Part IV of the EP Act through a Public Environmental Review ("PER") process with a public review period for the Environmental Review Document ("ERD") of 8 weeks.

Subsequently, DAWE will confirm the Project will be assessed under Section 75 of the EPBC Act as a controlled action and as an accredited assessment under the EP Act.

As part of the above process, Future Metals will prepare an Environmental Scoping Document ("ESD"). The Company anticipates being able to prepare an ERD utilizing information from prior environmental assessments at Panton, and through completing its own surveys through 2024 and begin the referral process in Q4 2024.

The Company does not consider the permitting process to be a limiting factor in the development of the Project. The environmental and approvals process will be progressed in parallel with the study phases of the Project.

## 14.2 | Environmental Factors

A comprehensive environmental assessment was completed by Platinum Australia as part of its 2003 Bankable Feasibility Study. This assessment has been utilized by the Company when considering its future study work requirements. The assessment covered a broad range of areas (detailed below) which did not identify any areas which would limit the development of the Project. These areas of assessment included:

- Flora and fauna
- Groundwater hydrology
- Surface water management
- Tailings dam management
- Air emissions including dust
- Noise
- Solid and liquid waste management
- Rehabilitation and closure
- Aboriginal heritage and archaeology

Further to this work, the Company has completed an initial environmental assessment with Biologic Environmental Survey. This assessment is summarized in the following table.

**Table 14-1 | Biologic Environmental Survey Desktop Assessment**

Risk	Overview	Assessment
<b>Subterranean Fauna</b>	Available data on subterranean fauna and potential habitat in and around the Panton Project on both local and subregional scales was reviewed and evaluated by Biologic Environmental Survey to infer the level of suitability of the area for subterranean fauna. The habitat assessment included available geological and hydrogeological data for the area such as drill core photographs and accompanying geological logs, and geological reporting. The potential for Priority and Threatened species of subterranean fauna to occur in the vicinity of the Study Area was assessed via the most recent list of such species published by the Department of Biodiversity and Attractions.	Relatively few records of subterranean fauna were identified in the vicinity of the Panton Project.
<b>Vertebrate Fauna</b>	A vertebrate fauna desktop assessment was undertaken to inform further design and development of the Project, future biological assessments and subsequent environmental approvals. No significant species have previously been recorded within the area.	Most significant species were considered Unlikely or Highly Unlikely to occur, primarily due to the lack of suitable habitat likely to support the species occurring within the area. No species were assessed as Highly Likely to occur.
<b>Flora and Vegetation</b>	A desktop assessment conducted during 2022 identified the broad environmental values of the Panton Project area, along with a literature review of 19 surveys previously completed within the broader region. Review of reports indicated no previous survey work has been conducted within the area. A total of 650 flora species were identified in the database searches and literature review as occurring within a 100km buffer of the Project. Of these, 69 were	An assessment was conducted to determine the likelihood of occurrence of any significant taxa within the project area. No significant taxa were classified as Highly Likely to occur within the project area, while one taxon was determined as Likely to occur, and 10 taxa classified as Possible to occur. The remaining significant taxa identified

Risk	Overview	Assessment
	conservation significant species, of which 30 were Priority 1 taxa, 23 Priority 2, 15 Priority 3 and one Priority 4.	included 22 considered Unlikely and 36 Highly Unlikely. No Threatened or Priority flora species were recorded in any of the historical surveys conducted within 10km of the project area.
<b>Aquatic Ecology</b>	Several watercourses intersect the general area, including the upper reaches of the Panton River but none intersect the Project area. Biologic Environmental Survey (Biologic) were contracted to undertake an aquatic ecology desktop assessment of the area, including a database search and literature review. The objective of the assessment was to gather comprehensive contextual information on the aquatic ecology (aquatic fauna and flora) values of the area, including conservation significant flora and fauna, to inform environmental impact assessment, and the potential requirement for future surveys.	No aquatic threatened ecological communities (TECs) or priority ecological communities (PECs) or wetlands of national or international significance were found to occur.
<b>Short Range Endemics</b>	Available data on potential habitat for SRE species in and around the Project and records of terrestrial invertebrate fauna in the local and subregional surrounds were reviewed and evaluated to infer the likelihood of SRE invertebrate species occurring in the area.	Based on existing data, 27.3% of the recorded taxa represent Confirmed SRE species (all camaenid land snails), while a further 41.8% are Potential SRE species. The closest record of a conservation significant terrestrial invertebrate species to the Project was the camaenid land snail <i>Nanotrachia orientalis</i> , which is listed as Vulnerable and has been recorded 85.5km to the northeast.

The Company intends to conduct confirmatory field surveys during 2024 to support the above findings. Future study work will also include confirmatory work to provide further support to the findings of the Platinum Australia 2003 Bankable Feasibility Study. The Company’s planned ERD will provide a holistic assessment of the environmental impacts of the Project for referral to the EPA.

### 14.3 | Stakeholder Engagement

As part of the ERD for the Project, the Company will consult with stakeholders who are affected by or are interested in the Project. This includes decision-making authorities, other relevant State (and Commonwealth) government agencies and local government authorities, the local community and environmental non-government organisations. The ERD will document all identified stakeholders, consultation taken and the outcomes, and any future plans for consultation.

## 14.4 | Native Title and Aboriginal Heritage

The Panton Mining Leases (M80/103, M80/104 and M80/105) are granted and lie within Malarngowem native title claims represented by the Malarngowem Prescribed Body Corporate (“MPBC”). These mining leases are unencumbered by native title agreements as the tenements were granted prior to the Native Title Act 1993 (Commonwealth).

An aboriginal heritage survey was completed by Platinum Australia as part of their 2003 Bankable Feasibility Study. The survey determined at the time that the implementation of the Project would not adversely affect Aboriginal heritage values of the area. One archaeological site was identified on M80/103, being the southern most mining lease and well away from the orebody.

The Company has been positively engaged with the MPBC since 2022 and there is a Heritage Protection Agreement in place to provide a framework for engagement around aboriginal heritage and the Company’s exploration activities. The Company has conducted multiple surveys with Malarngowem representatives, supported by a qualified archaeologist & anthropologist, and no archaeological or heritage sites have been identified to date. Further surveys will be undertaken as required in support of progressing the Project through the study stages, and any additional exploration activities.

Future Metals’ will continue to build a strong relationship with the Malarngowem and ensure that as the Project develops, so too will the economic and social opportunities for the Traditional Owners.

## Chapter 15 | Opportunities and Upside

### Upgrading Geological Confidence of Existing Resource

The mine plan outlined in this Study only includes 26% of material from the combined MRE for the Reef and High Grade Dunite. There is significant upside potential for the Project from improving the geological confidence of the Inferred mineralisation for its inclusion of additional material into the mine plan. Figure Five shows the forecast annual free cash flows of the Project. As an indication of the potential upside associated with mine life extensions, average annual free cash flows during the years of operations are A\$72m.

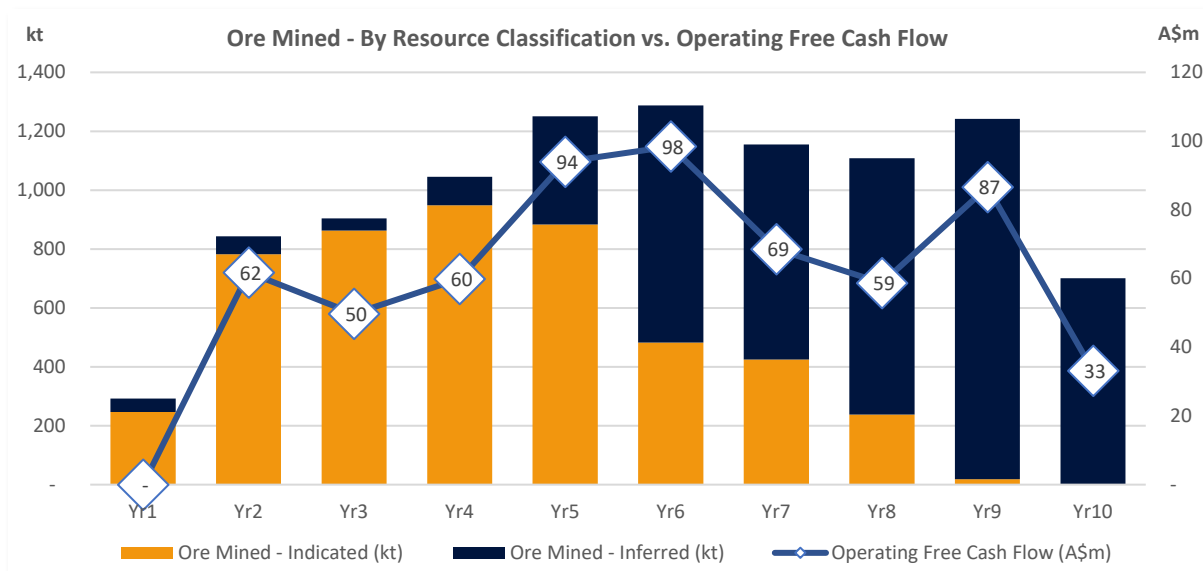
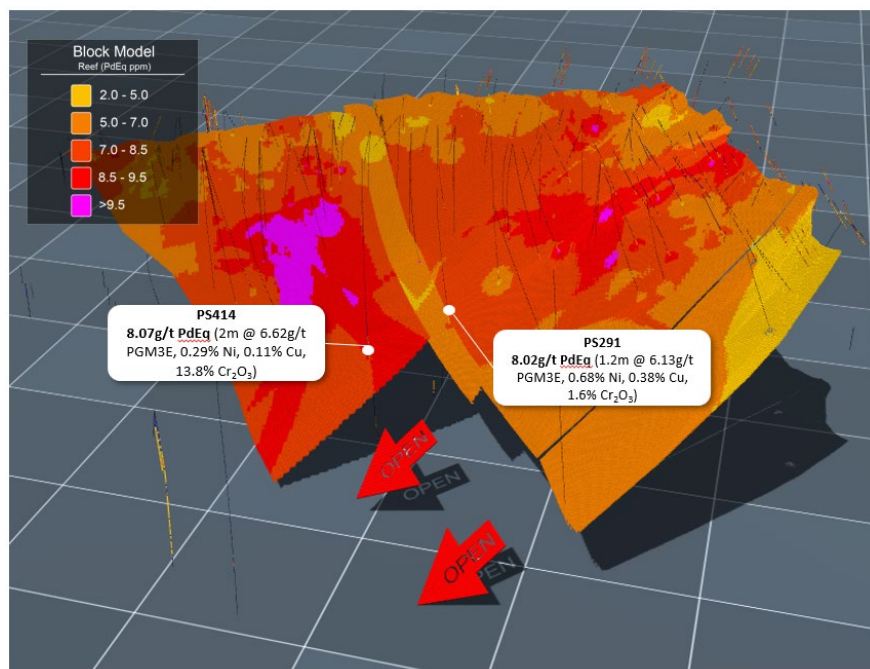


Figure 15-1 | Ore Mined – by Resource Classification vs. Operating Free Cash Flow

## Resource Growth & Panton Exploration

Panton's Reef and High-Grade Dunite are open at depth and plunging to the south-west. Drill hole PS414 is on the largest step-out and demonstrates increasing grade and a potential thickening in the deposit as it plunges. There is considerable potential to grow the high-grade Reef and High-Grade Dunite MRE through further drilling targeting down plunge extensions.



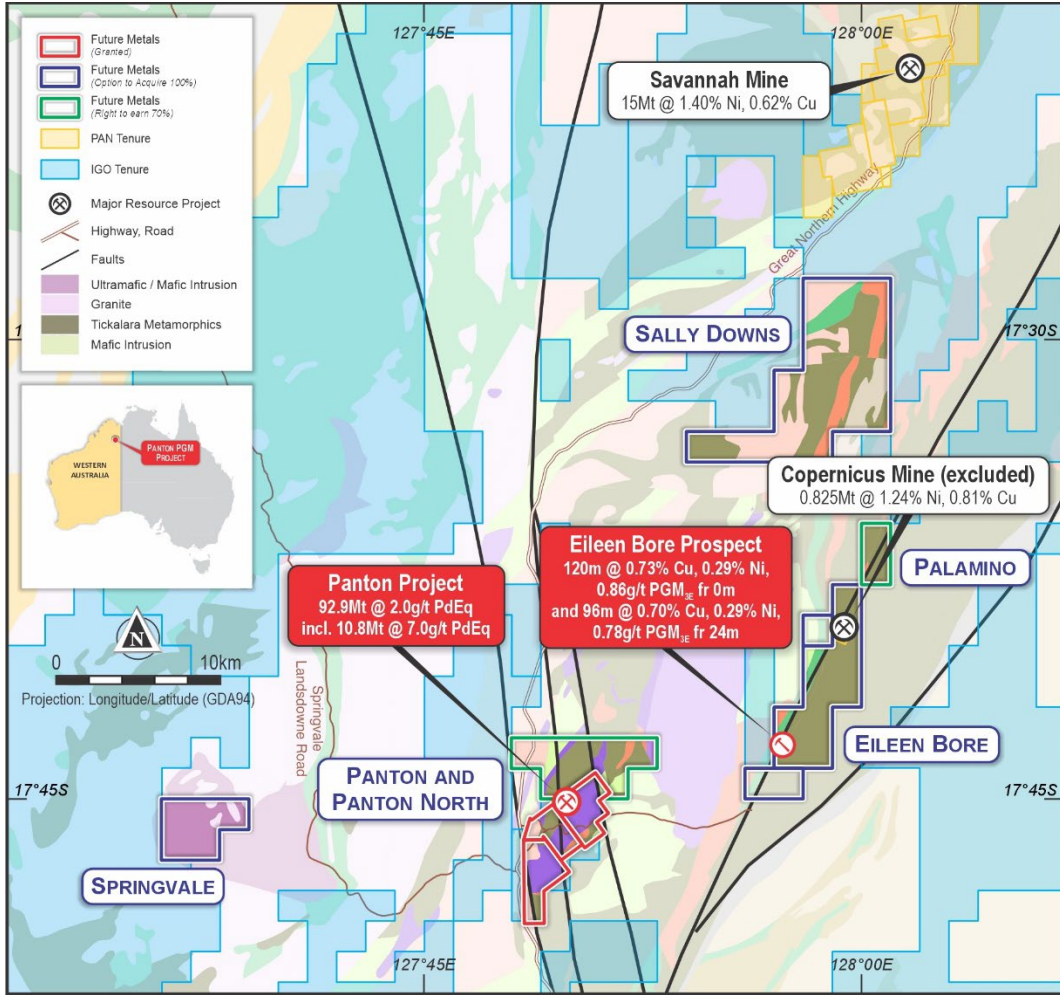
**Figure 15-2 | Isometric view of high-grade PGM reef looking north with drill traces and resource blocks coloured by PdEq grade**

There is also potential to discover localised zones of economic mineralisation (such as more reefs) near the existing Reef modelled in the MRE. Drill hole PS291 demonstrates sulphide-rich mineralisation with significantly less chromite than the majority of the reef intersections which inform the MRE. This style of mineralisation is analogous to the Bushveld system in South Africa, where the sulphide-rich Merensky reef sits higher up in the stratigraphy than the chromite-rich UG2 reef.

The majority of the drill holes included in the MRE have only been sampled close to the upper and lower reef contacts. There was limited sampling of mineralisation above or below the reefs by prior owners of Panton, with geological logging providing multiple indications of chromite stringer reefs which have not been sampled (a potential marker for PGM<sub>3E</sub> mineralisation). The Company is currently completing a review of this historical logging to target previously drilled holes of interest for follow up re-logging and portable X-Ray Fluorescence ("pXRF") analysis, followed by sampling and assaying.

### Regional Exploration - Eileen Bore

Future Metals has established a significant land position surrounding Panton in the East Kimberley. The Company's granted tenement package covers over 176m<sup>2</sup> of a highly geologically prospective corridor with potential to contain further Ni-Cu-PGM deposits.



**Figure 15-3 | Future Metals' East Kimberley land position**

The most advanced exploration target is the Eileen Bore prospect, which is located approximately 15km from the Panton Project, along established stations roads. Drilling has confirmed wide zones of consistent Cu-Ni-PGM mineralisation from surface along a known strike of ~300m. Mineralisation remains open at depth with multiple targets along strike, with an average hole depth of just 96m and a maximum drilled vertical depth of ~200m. Eileen Bore sits along the same structure which hosts the Copernicus mine 15km to the north-east.



Drilling results include:

- 120m @ 0.73% Cu, 0.29% Ni & 0.86g/t PGM<sub>3E</sub> from 0m (EoH) (EBRC 010)
  - Incl. 16m @ 1.0% Cu, 0.36% Ni & 0.99g/t PGM<sub>3E</sub> from 100m
- 96m @ 0.70% Cu, 0.29% Ni & 0.78g/t PGM<sub>3E</sub> from 24m (EoH) (EBRC 003)
  - Incl. 10m @ 1.08% Cu, 0.34% Ni & 1.04g/t PGM<sub>3E</sub> from 56m
- 84m @ 0.54% Cu, 0.24% Ni & 0.75g/t PGM<sub>3E</sub> from 36m (EoH) (EBRC 011)
- 47m @ 0.62% Cu, 0.30% Ni & 0.60g/t PGM<sub>3E</sub> from 3m<sup>(AD07)</sup>
- 36m @ 0.53% Cu, 0.25% Ni & 0.59g/t PGM<sub>3E</sub> from 40m (EBRC 002)
- 64m @ 0.77% Cu, & 0.30% Ni from 32m (EoH) (EP09)
- 52m @ 0.74% Cu, & 0.29% Ni from 10m (EP08)

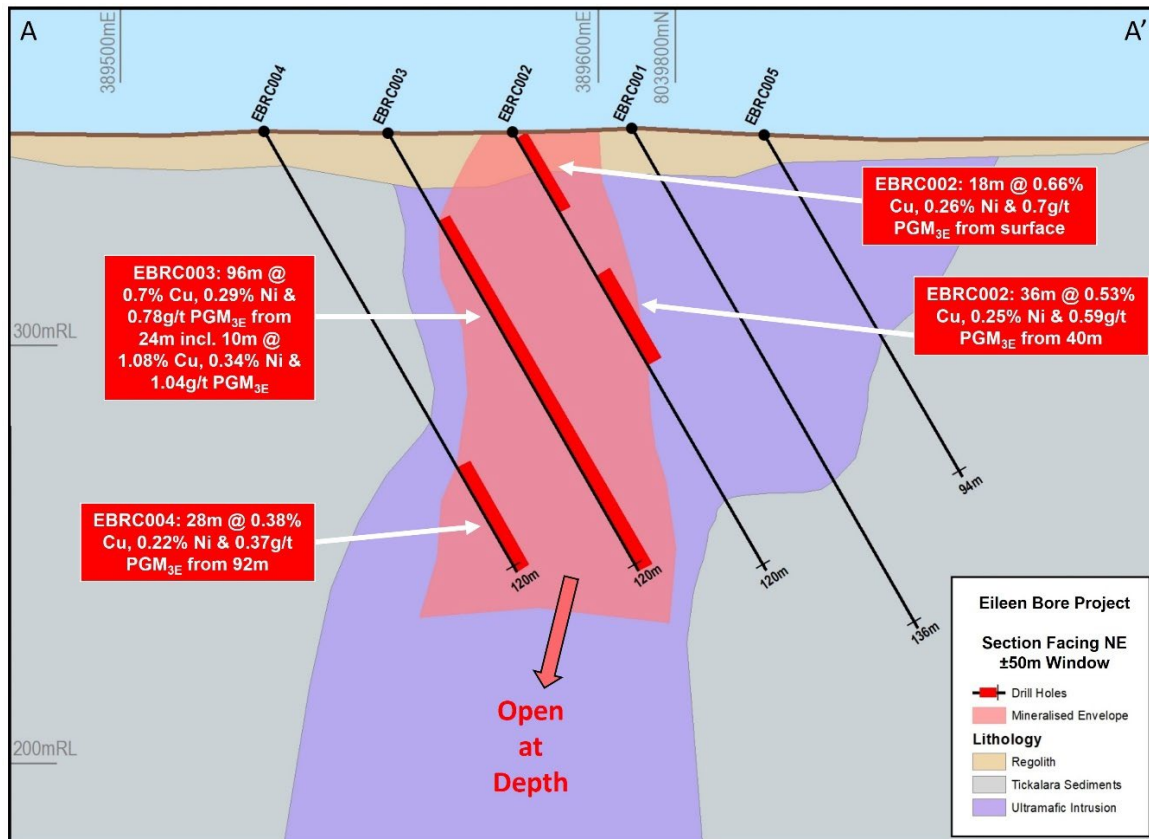


Figure 15-4 | Cross section of drilling at Eileen Bore demonstrating mineralisation open at depth

Drilling to date has focused on near surface mineralization. The Company’s interpretation of drill hole data is that mineralization is controlled by a south-west plunging, chonolith-like body with grades and thicknesses increasing towards the centre of the intrusion. The down plunge extent of the body has not been effectively drill tested. It is likely that the mineralization has been offset and displaced laterally or vertically by cross-faults and no drilling to date has tested this potential either.

The Company is currently developing a forward plan for exploration at Eileen Bore. There is potential to quickly establish a Mineral Resource Estimate at Eileen Bore through infill drilling and metallurgical and potentially incorporate the project into the next study phases for Panton given its proximity. Exploration would also involve testing extensions of the deposit along strike and at depth.

In addition to Eileen Bore there are a significant number of targets within the Company’s land package. The Scoping Study has established the Panton Project as a compelling standalone potential future operation of scale, providing positive leverage for successful development of any further discoveries by the Company.

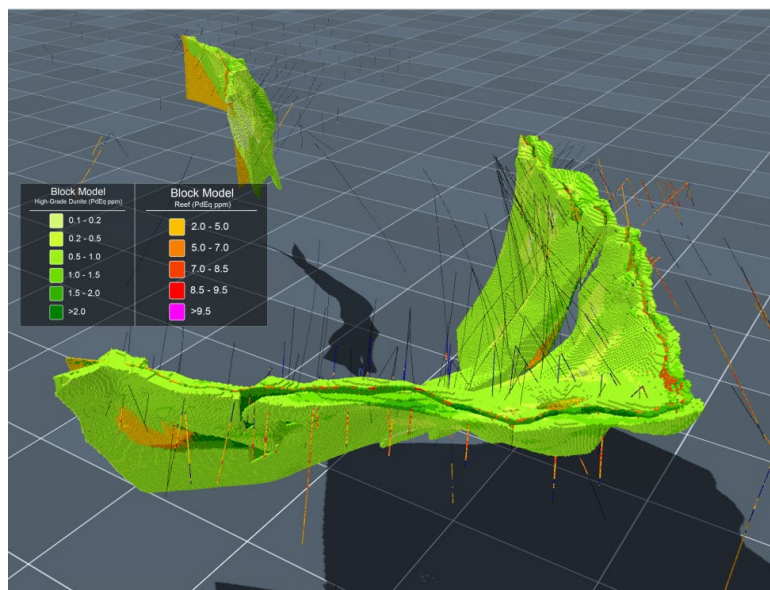
### Expansion Potential

The Scoping Study solely considers the mining and processing of Reef and High Grade Dunite. The Bulk Dunite contained in the MRE represents significant expansion potential for the Project. Bulk Dunite is near surface with thicknesses of 25 – 75m, making it suitable for open pit extraction. There is potential to significantly expand the mining and processing capacity of planned future operations at Panton utilising this material, under an accommodative commodity price environment and with further metallurgical progress.

**Table 15-1 | Panton Mineral Resource Estimate - Bulk Dunite**

Mass (Mt)	PGM <sub>3E</sub> <sup>1</sup> (g/t)	Ni (%)	Cr <sub>2</sub> O <sub>3</sub> (%)	PdEq <sup>2</sup> (g/t)
55.7	Grade	0.8	1.2	1.2
		(Moz)	(kt)	(Mt)
	Contained Metal	1.4	102	666
				3,895

<sup>1</sup> Refer to Appendix Two and announcement on the 26<sup>th</sup> of October 2023 for more detail on Panton’s MRE



**Figure 15-5 | Bulk Dunite block model. Depth cut-off in MRE of 150m not shown in figure**

## Additional Upside Potential

The below table outlines additional upside potential for the Panton Project not captured in the Scoping Study.

**Table 15-2 | Panton Upside Opportunities**

Area	Opportunity
Processing	Optimisation of flotation across Reef and Dunite material to improve metallurgical recoveries, increase gangue rejection and decrease mass pull
	Optimisation of ore sorting and other physical separation techniques to more effectively split Reef and Dunite material, and reject gangue material ahead of grinding and flotation
	Incorporation of downstream processing to produce refined metals products, improving payabilities and decreasing logistics costs
	Inclusion of other payable metals including rhodium, iridium, copper and cobalt
Marketing	Pricing upside associated with western or green premiums for scarce and critical resources located in Australia, supporting supply chain development outside of China, Russia and South Africa
	Improved payabilities and smelter terms associated with scarce, long term offtake from a Western jurisdiction

## Chapter 16 | Risks

During the Scoping Study, the technical risks of the project were assessed assuming well-established mining and processing techniques with conventional technology would be implemented.

As with most projects at scoping level, there continues to be risks that could affect the economic potential of the project. Many of the risks relate to the need for additional field information, laboratory testing or engineering to confirm the assumptions and parameters used in this report. External risks are, to a certain extent, beyond the control of Future Metals' and are much more difficult to anticipate and mitigate, although, in many instances, some risk reduction can be achieved.

The mining industry brings some common risks which have been identified and listed in Table 16-1.

**Table 16-1 | General Risks Common to the Mining Industry**

Risk	Explanation / Potential Impact	Possible Risk Mitigation
CAPEX and OPEX	Inability to demonstrate the economic viability of the project	Further cost estimation accuracy with the next level of study, as well as the active investigation of potential cost-reduction measures would assist in the accuracy of cost estimates
Mineral Resource Modelling	Inaccuracy of geological model	Infill drilling is required to support the next level of study
Permit Acquisition or Delay	The ability to secure all of the permits to build and operate the Project is of paramount importance. Failure to secure the necessary permits could stop or delay the Project.	A thorough Environmental and Social Impact Assessment of a project design that gives appropriate consideration to the environment and local community expectations and input is required.
Falling Commodity Prices	A drop in metal prices during the mine development process could have a negative impact on the profitability of the operation, especially in the critical first years.	Begin construction when the outlook is good for price improvement and have mitigating strategies, such as hedging, and supporting analyses to address the risk of a downturn.

<b>Risk</b>	<b>Explanation / Potential Impact</b>	<b>Possible Risk Mitigation</b>
<b>Change in Permit Standards, Processes, or Regulations</b>	A change in standards, processes, or regulations could have a significant impact on project schedules, operating cost and capital cost.	Participate in legislative and regulatory processes to ensure standards remain protective, fair and achievable.

The Panton Project brings some specific challenges which were identified during a risk workshop.

The most significant project specific risks, potential impacts and possible mitigation approaches identified are listed in Table 16-2.

**Table 16-2 | Panton Project Specific Risks**

<b>Risk</b>	<b>Explanation/Potential Impact</b>	<b>Possible Risk Mitigation</b>
<b>Water Management</b>	Lack of water to sustain the project	Further drilling to identify groundwater sources
<b>Geotechnical Engineering</b>	Geotechnical issues with respect to UG mining; UCS variability	Further investigations involving tests to support the next level of study
<b>Mining Rates</b>	Inability to achieve required development and stope turnover rates	Identify mining contractor and management capable of achieving rates. Reduce mining rate (and processing throughput rate)
<b>Equipment Availability</b>	Suitability and availability of mining equipment	Identify UG equipment alternatives and long lead items in the next level study
<b>Metallurgy</b>	Variability of flowsheet performance such as ore sorting, flotation recoveries and concentrate grades	Further optimization and variability testing to ensure repeatable performance across orebody areas planned for extraction and processing
<b>Offtake and Marketing</b>	Changes in offtake availability and terms	Continued offtaker engagement to ensure multiple potential customers and drive competitive terms. Optimisation of product to customers requirements
<b>Human Resources</b>	The ability to attract and retain competent, experienced workforce	The early search for, and retention of, skilled labour and professionals during the development phase
<b>Operating Cost</b>	Significant increase in power costs	Further investigations modelling various renewable power options

## Appendix A | JORC Code (2012) Edition Table 1

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling methods used for samples used in the flotation and tailings leaching test work in this announcement were sourced from both PQ3 Diamond drill core and Chromitite reef mineralisation mined from the underground decline in 2007. PQ3 Diamond Core which was cut in half, and one half further cut into a quarter. One quarter is sent for assay, one quarter is retained for reference and the remaining half is used as a metallurgical test sample. Sample intervals were generally 1m in length but modified to honor geological changes such as lithology contacts. Minimum sample length was 30cm.</li> <li>All sampling was either supervised by, or undertaken by, qualified geologists.</li> <li>1/4 core samples were sent to Bureau Veritas, Canning Vale, Western Australia.</li> <li>To ensure representative sampling, for each hole, the same quarter of the original core was sent for assay, for example when looking at the core down hole, the right-hand side was retained in the core tray as the metallurgical sample, and the upper left-hand side of the core was always sent for assay with the lower left hand side always retained as the reference material. At the laboratory the entire 1/4 core sample was crushed, a 300g split was pulverised to provide material for fire assay and ICP-MS.</li> <li>Historical metallurgical results were from composites created by a prior owner of the Panton project, Platinum Australia NL. The following information in Table 1 relates solely to metallurgical samples collected by Future Metals NL.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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 orientated and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>All drill holes in this release were drilled PQ3 (83.0mm diameter).</li> <li>Core is orientated using a BLY TruCore UPIX Orientation Tool.</li> </ul> <p>The drilling contractor was Terra Drilling. Triple tubes are utilised in the weathered horizon (less than 10m) and standard tubes for the remainder of the drill hole.</p>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Each core run is measured and checked against the drillers core blocks. Any core loss is noted. To date core recoveries have been excellent with very little core loss reported.</li> <li>The drilled widths of mineralisation in these drill holes are larger than the true widths.</li> </ul> <p>No relationship between recovery and grade has been identified.</p>
<b>Logging</b>	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All drill core has been logged onsite by geologists to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Logging is qualitative and records lithology, grain size, texture, weathering, structure, alteration, veining and sulphides. Core is digitally photographed.</li> </ul> <p>All holes are logged in full.</p>
<b>Sub-sampling techniques</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>All core that is sampled is cut using a diamond saw. PQ3 core is cut in half, and then one half cut again into quarters. One</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>and sample preparation</b>	<ul style="list-style-type: none"> <li>▪ If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>▪ For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>▪ Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>▪ 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.</li> <li>▪ Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<p>quarter core is sent to the laboratory for assay, and the remaining core is kept as a reference.</p> <ul style="list-style-type: none"> <li>▪ Generally, core samples are 1 metre in length, with a minimum sample length of 30 centimetres. Sample lengths are altered from the usual 1 metre due to geological contacts, particularly around the chromitite reefs.</li> <li>▪ The sample size is considered appropriate for the material being sampled.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>▪ The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>▪ 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.</li> <li>▪ 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.</li> </ul>	<ul style="list-style-type: none"> <li>▪ For Future Metals NL drill holes ½ core samples were sent, Bureau Veritas, Canning Vale, Western Australia.</li> <li>▪ Future Metal NL analysis of samples had Pt, Pd and Au determined by lead collection fire assay with a 40 gram charge with ICP-MS finish providing a lower detection limit of 1ppb. Determination of As, Co, Cr, Cu, Ni and S was by Inductively Coupled Plasma following a mixed acid digest. Both ICP and fire assay analytical methods are total.</li> <li>▪ No geophysical tools were used.</li> </ul> <p>Laboratory repeat analysis is completed on 10% of the samples submitted for assay.</p>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>▪ The verification of significant intersections by either independent or alternative company personnel.</li> <li>▪ The use of twinned holes.</li> <li>▪ Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>▪ Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Intersections are not reported in this release.</li> </ul> <p>No adjustments were made to the data other than converting ppm to % by dividing by 10,000.</p>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>▪ 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.</li> <li>▪ Specification of the grid system used.</li> <li>▪ Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Drill hole collars are located using a hand-held GPS. Down hole surveys are taken with a north seeking gyroscope at regular intervals of 30m down hole.</li> <li>▪ Grid system used is Map Grid of Australia 1994, Zone 52.</li> <li>▪ The topographic control is considered better than &lt;3m and is considered adequate.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>▪ Data spacing for reporting of Exploration Results.</li> <li>▪ 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.</li> <li>▪ Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Data spacing down hole is considered appropriate at between 0.3 and 1m intervals.</li> <li>▪ Samples have not been composited.</li> </ul>
<b>Orientation of data in relation to</b>	<ul style="list-style-type: none"> <li>▪ Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The orientation of the drill hole relative to the geological target is as orthogonal as practicable however drilled intersections will be larger than true widths.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>geological structure</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>All core sample intervals are labelled in the core boxes, recoded digitally and captured with the core photography. Cut core samples are collected in bags labelled with the sample number. Samples are delivered to the Company's transport contractor in Halls Creek directly by Company personnel. Samples are then delivered to the laboratory by the transport contractor.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The Company employed industry-standard protocols. No independent audit has been conducted.</li> <li>This announcement includes historical results generated by a prior owner of the Panton Project, Platinum Australia NL. The Company is not able to independently verify these results however based on historical reporting, consultants used and parallels to the Company's own results, it believes the results can be reported and relied upon.</li> </ul>

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Panton PGM-Ni-Cr Project comprises three granted mining licenses M80/103, M80/104 and M80/105 ('MLs'). The MLs are held 100% by Panton Sill Pty Ltd which is a 100% owned subsidiary of Future Metals NL. The MLs were granted on 17 March 1986 and are currently valid until 16 March 2028. A 0.5% net smelter return royalty is payable to Elemental Royalties Australia Pty Ltd in respect of any future production of chrome, cobalt, copper, gold, iridium, palladium, platinum, nickel, rhodium and ruthenium. A 2.0% net smelter return royalty is payable to Maverix Metals (Australia) Pty Ltd on any PGMs produced from the MLs.</li> <li>The Panton PGM-Ni-Cr Project is located within the traditional lands of the Malarngowen with the necessary agreements in place. The tenure is within the Alice Downs Pastoral Station.</li> <li>There are no impediments to working in the area.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The Panton deposit was discovered by the Geological Survey of Western Australia from surface sampling in the mid-1960s. Pickland Mathers and Co drilled the first holes to test the intrusives in 1970, followed by Minsaco Resources Pty Ltd and completed a prefeasibility study in 1987. In 1989, Pancontinental Mining Limited and Degussa Exploration GMHB drilled 32 further holes to define a resource of 2.2 million tonnes at a grade of 5.6 g/t PGM and Au containing 387,000 ounces. By 1991 a total of 59 primary diamond core drill holes with an additional 30 daughter holes were drilled into the Panton Sill Upper and Middle Chromitite Reefs that were used to estimate the resource. Between 1991 and 2000 there was no exploration activity at Panton.</li> <li>Platinum Australia Limited (PLA) acquired the project in 2000, mining a new adit for metallurgical testing and further drilling for a new resource update. A major drilling campaign was completed with a further 325 diamond and reverse circulation holes completed. Twenty-one trenches were also completed. From the adit, 650t of material from the Upper Reef was shipped to South Africa for pilot plant test work.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>▪ In March 2012, PLA announced the results of a review of its 2003 Bankable Feasibility Study. The 2012 BFS Review assumed the resources would be mined via a combination of open and underground with annual production of 600,000tpa for ~83,000ozpa 3E (Pt+Pd+Au).</li> <li>▪ The 2004 JORC Measured, Indicated and Inferred resources for the Panton Project were 14.32Mt at 5.20g/t PGM+Au (at 2.19 g/t Pd, 0.31g/t Au, 0.27% Ni, 0.07% Cu) was reported by PLA.</li> <li>▪ In May 2012, Panton Sill Pty Ltd (a wholly owned subsidiary of Panoramic Resources Ltd) then known as Panoramic Precious Metals Pty Ltd, purchased the Panton Project, which included M80/103, M80/104 and M80/105, from PLA. In October 2012, Panoramic Precious Metals Pty Ltd changed its name to Panton Sill Pty Ltd.</li> <li>▪ While Panoramic Resources held the project, further metallurgical studies were completed but little additional work was undertaken on site. In 2021, Great Northern Palladium purchased the project from Panoramic Resources. Red Emperor Resources Limited acquired this project prior to Future Metals NL acquiring the project in 2022.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>▪ Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The Panton intrusive is a layered, differentiated mafic to ultramafic body that has been intruded into the sediments of the Proterozoic Lamboo Complex in the Kimberley Region of Western Australia. The Panton intrusion has undergone several folding and faulting events that have resulted in a south westerly plunging synclinal structure approximately 9km long, 3km wide and 1.5km depth</li> <li>▪ PGM mineralisation is associated with several thin cumulate Chromitite reefs within the ultramafic sequence. There are three chromite horizons, the Upper group Chromitite (situated within the upper gabbroic sequence), the Middle group Chromitite (situated in the upper portion of the ultramafic cumulate sequence) and the Lower group Chromitite (situated toward the base of the ultramafic cumulate sequence).</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>▪ 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: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>▪ 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.</li> <li>▪</li> </ul>	<ul style="list-style-type: none"> <li>▪ No previously unreleased exploration results are included in this announcement.</li> <li>▪ No material information has been excluded in this announcement.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	<ul style="list-style-type: none"> <li>▪ No Exploration Results are reported in this announcement.</li> <li>▪ Metal price assumptions used in the metal equivalent calculations are Palladium US\$1,500/oz, Platinum US\$1,250/oz, Gold US\$1,750/oz, Nickel US\$20,000/t and</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<p>Chromite US\$175t for chromite concentrate (40-42% Cr<sub>2</sub>O<sub>3</sub>)</p> <ul style="list-style-type: none"> <li>Metallurgical recovery assumptions used in the metal equivalent calculation are: <ul style="list-style-type: none"> <li>Reef: Palladium 80%, Platinum 80%, Gold 70%, Nickel 45% and Chromite 70%</li> <li>Dunite: Palladium 75%, Platinum 75%, Gold 85% and Nickel 40%</li> </ul> </li> <li>Pd equivalence is calculated by: <ul style="list-style-type: none"> <li>Reef: PdEq (Palladium Equivalent g/t) = Pd(g/t) + 0.833 x Pt(g/t) + 1.02083 x Au(g/t) + 2.33276 x Ni(%) + 0.07560 x Cr<sub>2</sub>O<sub>3</sub>(%)</li> <li>Dunite: PdEq (Palladium Equivalent g/t) = Pd(g/t) + 0.833 x Pt(g/t) + 1.32222 x Au(g/t) + 2.2118 x Ni(%)</li> </ul> </li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>No new Exploration Results are reported in this announcement.</li> <li>Metallurgical drill holes have been deliberately orientated at a low angle to the dip of the mineralised chromitite reefs to maximise the amount of material recovered for metallurgical test work. The drilled thickness is considerably greater than the true thickness in these drill holes as a result.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Drillhole locations and diagrams are presented in the relevant previous ASX announcements related to the exploration results.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No exploration results have been reported in this announcement.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No exploration results are being reported in this specific announcement.</li> <li>No other exploration data is relevant.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>Next stage of work will consist of additional mineralogical and metallurgical test work focusing on variability testing.</li> </ul>