21 June 2022 ASX | AIM: 'FME'



Independent JORC Mineral Resource Estimate of 6.9Moz PdEq¹ Panton PGM-Ni Project

Future Metals NL ("**Future Metals**" or the "**Company**", **ASX | AIM: FME**), is pleased to announce an updated independent JORC Code (2012) Mineral Resource Estimate ("MRE") for its 100% owned Panton PGM-Nickel Project ("Panton PGM-Ni Project") in northern Western Australia of 5.0Moz palladium, platinum and gold ("PGM_{3E}") and 238kt Ni, at a grade of 1.66g/t PdEq¹.

Highlights

- Updated MRE confirms the Panton PGM-Ni deposit to be of a global scale:
 - o 129Mt @ 1.20g/t PGM3E, 0.19% Ni, and 154ppm Co (1.66g/t PdEq¹)
 - O Containing 5.0Moz PGM3E, 239kt Ni, and 20kt Co (6.9Moz PdEq1)
- Represents a 108% increase in contained PGM_{3E} whilst the contained Nickel resource has increased by 526% during the Company's 12 months of ownership of the Panton PGM-Ni Project
- Includes the outcropping, contiguous high-grade reef, providing excellent development optionality:
 - 25Mt @ 3.57g/t PGM3ε, 0.24% Ni, and 192ppm Co (3.86g/t PdEq¹)
 - Ocontaining **2.9Moz PGM3E, 60kt Ni**, and **5kt Co (3.2Moz PdEq¹)**; remodelled to be more suitable to potential underground mining widths
- Second largest PGM deposit in Australia, only surpassed by Chalice Mining Ltd's Gonneville discovery which has an MRE of 10Moz PGM3E, 530kt Ni, 330kt Cu, 53kt Co at 1.60g/t PdEq¹
- Bulk dunite mineralisation, from surface and constrained to a vertical depth of approximately 150m
 - o Drilling confirms bulk dunite mineralisation continues well beyond current MRE with drilling to 800m
 - Over 13,500oz PGM3E and 1,100t Ni per vertical metre in top 150 vertical metres
- Updated MRE follows 6,000m of new drilling and 1,500m of historical drill core assaying to add to over 40,000m of historical drilling
- Significant further growth potential with the Panton deposit remaining 'open' at depth and along strike:
 - o MRE excludes the large 'Northern Anomaly' where drilling confirms broad widths of PGM, Ni and Cu mineralisation from surface across a strike of 2.5km
 - Contact-style disseminated mineralisation potentially similar to Platreef, and the Callisto discovery, with strong potential for zones of enhanced sulphide mineralisation along strike and at depth
 - Numerous near-surface zones within current MRE area which are limited by drilling however geological understanding supports continuity along strike and at depth
- MRE demonstrates the Panton PGM-Ni Project to be a highly strategic, large-scale PGM-Ni project in the Tier One
 jurisdiction of Western Australia on granted Mining Leases
- Test work to date on high-grade supports recoveries of 70-80% at concentrate grades of 100-200g/t PGM3E. Further test work underway, replicating flowsheets of analogous operating mines in South Africa
- Scoping development studies to commence, assessing optimal development pathways for Panton assessing both high-grade and bulk tonnage scenarios and a combination of both, leading into a planned Pre-Feasibility Study, in parallel with further exploration and metallurgical work
- Company remains well funded with cash of approximately A\$3.6m (as at 31 May 2022) to advance low-cost test work and development studies

¹ Refer page 17 for palladium equivalent (PdEq) calculation



Mr Jardee Kininmonth, Managing Director & CEO of Future Metals, commented:

"This updated JORC resource estimate of 5.0Moz of PGM3E and 239kt of nickel is a pivotal milestone for the Company, demonstrating the potential for Panton to be a PGM-Ni project of global scale outside the primary supply jurisdictions of Russia and South Africa. The inclusion of the mineralised envelope surrounding the chromite reefs has significantly increased Panton's Resource and scale potential, growing contained ounces of PGM's by over 100% and increasing the contained nickel by over 500%.

There remains significant exploration upside at Panton with potential to add both tonnes and grade across numerous targets. We intend to follow up the success of the new MRE with a drill program which will test a number of exploration targets including the impressive Northern Anomaly which is highly prospective for concentrated sulphide zones.

The Company continues to progress the metallurgy work at Panton, expanding on early exploratory sighter test work with a more systematic program where analogous projects from the PGM industry in South Africa are being utilised to determine an appropriate flow sheet configuration for the Panton mineralisation.

We are now able to move towards a scoping study to make a preliminary assessment on the best path forward for Panton."

About the Panton PGM-Ni Project

The 100% owned Panton PGM-Ni Project is located 60kms north of the town of Halls Creek in the eastern Kimberly region of Western Australia, a tier one mining jurisdiction. The project is located on three granted mining licences and situated just 1km off the Great North Highway which accesses the Port of Wyndham (refer to Figure One).

PGM-Ni mineralisation occurs within a layered, differentiated mafic-ultramafic intrusion referred to as the Panton intrusive which is a 12km long and 3km wide, south-west plunging synclinal intrusion. PGM mineralisation is hosted within a series of stratiform chromite reefs as well as a surrounding zone of mineralised dunite within the ultramafic package.





Figure One | Panton PGM Project Location



Table One | Panton Mineral Resource Estimate (JORC Code 2012)

Resource	Category	Mass				(Grade							Conta	ined Meta	l		
		(B.//4)	Pd	Pt	Au	PGM _{3E}	Ni	Cu	Co	PdEq1	Pd	Pt	Au	PGM _{3E}	Ni	Cu	Co	PdEq1
		(Mt)	(g/t)	(g/t)	(g/t)	(g/t)	(%)	(%)	(ppm)	(g/t)	(Koz)	(Koz)	(Koz)	(Koz)	(kt)	(kt)	(kt)	(Koz)
Reef	Indicated	7.9	1.99	1.87	0.31	4.16	0.24	0.07	190	4.39	508	476	78	1,062	19.1	5.2	1.5	1,120
	Inferred	17.6	1.59	1.49	0.22	3.30	0.23	0.07	193	3.63	895	842	123	1,859	41.1	13.1	3.4	2,046
	Subtotal	25.4	1.71	1.61	0.24	3.57	0.24	0.07	192	3.86	1,403	1,318	201	2,922	60.3	18.2	4.9	3,166
Dunite	Inferred	103.4	0.31	0.25	0.07	0.62	0.17	0.03	145	1.12	1,020	825	225	2,069	179.6	30.2	15.0	3,712
	Subtotal	103.4	0.31	0.25	0.07	0.62	0.17	0.03	145	1.12	1,020	825	225	2,069	179.6	30.2	15.0	3,712
All	Indicated	7.9	1.99	1.87	0.31	4.16	0.24	0.07	190	4.39	508	476	78	1,062	19.1	5.2	1.5	1,120
	Inferred	121	0.49	0.43	0.09	1.01	0.18	0.04	152	1.48	1,915	1,667	347	3,929	219.7	43.2	18.4	5,758
	Total	129	0.58	0.52	0.10	1.20	0.19	0.04	154	1.66	2,423	2,143	425	4,991	238.8	48.4	19.9	6,879

¹ Refer page 17 for palladium equivalent (PdEq) calculation
² No cut-off grade has been applied to reef mineralisation and a cut-off of 0.9g/t PdEq has been applied to the dunite mineralisation



Panton Mineral Resource Estimate Overview

The MRE at Panton has increased to **129Mt @ 1.20g/t PGM3E**, **0.19% Ni**, 0.04% Cu and 154ppm Co **(1.66g/t PdEq¹)** at a cut-off grade of 0.90g/t PdEq for contained metal of **5.0Moz PGM3E**, **239kt Ni**, 48kt Cu and 20kt Co **(6.9Moz PdEq¹)**.

The MRE includes the high-grade reef of **25Mt @ 3.57g/t PGM3E, 0.24% Ni**, 0.07% Cu and 192ppm Co **(3.86g/t PdEq¹)** for contained metal of **2.9Moz PGM3E, 60kt Ni**, 18kt Cu and 5kt Co **(3.2Moz PdEq¹)**.

Panton's previous MRE, previously reported in the Company's prospectus dated 18 May 2021, related entirely to the high-grade chromite reefs and did not include any of the mineralised dunite material which envelopes the reefs. The mineralised dunite increases the width of the mineralisation significantly, allowing for the estimation of a bulk-tonnage MRE which supports assessment of potential open-pit mining scenarios, along with a high-grade operation.

This MRE update includes the dunite portion of the mineralisation, down to an approximate depth of just ~150m (300mRL). The high-grade reef and lower-grade, bulk dunite mineralisation have been estimated separately given their geological and mineralogical differences. The individual estimates are detailed in Table One below.

The dunite mineralisation has been modelled at a 0.5g/t PdEq grade shell and reported using a PdEq lower cut-off grade of 0.9g/t. This is considered appropriate given the multi-element nature of the mineralisation. The reef has been geologically constrained rather than utilising a cut-off grade. Inputs for the PdEq calculations are set out on page 17.

Geological modelling of the new MRE has expanded the reef mineralisation to include the higher-grade mineralisation around the margins to the reefs. As such, this has resulted in a reef interpretation that is wider and less tightly constrained than in the previous MRE leading to an increase in tonnes and an increase in contained metal (more than offsetting a slight decrease in grade). This is considered a more appropriate level of granularity given the drill spacing across the Resource, particularly at depth, and models the reef in line with potential mining widths for underground mining. The strike length of the reef has also increased due to drilling intercepts not previously incorporated into the resource modelling.

The new MRE was prepared independently by International Resource Solutions Pty Ltd and reported in accordance with the JORC Code (2012).



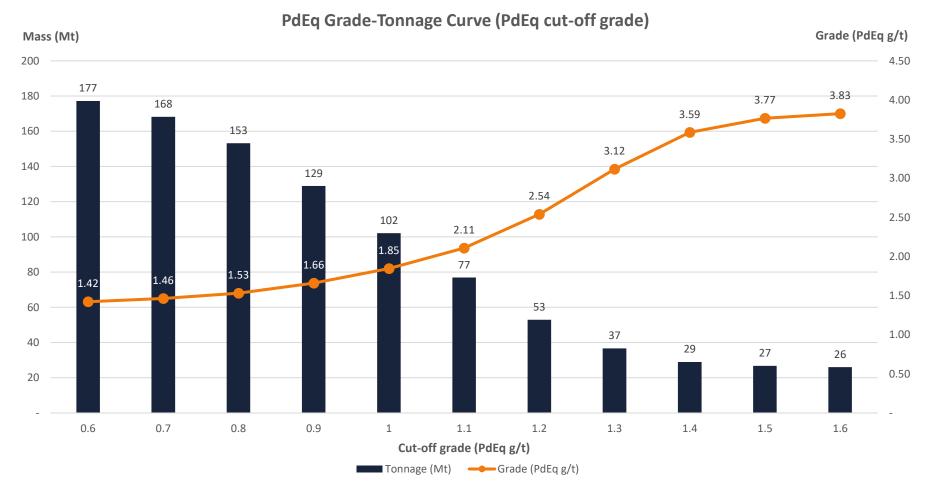


Figure Two | Panton PdEq Grade-Tonnage Curve



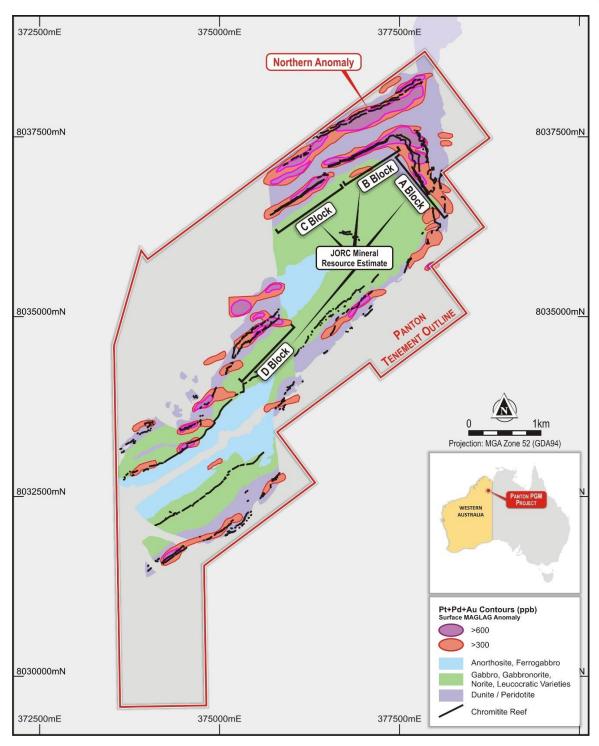


Figure Three | Panton Plan View - Resource Area



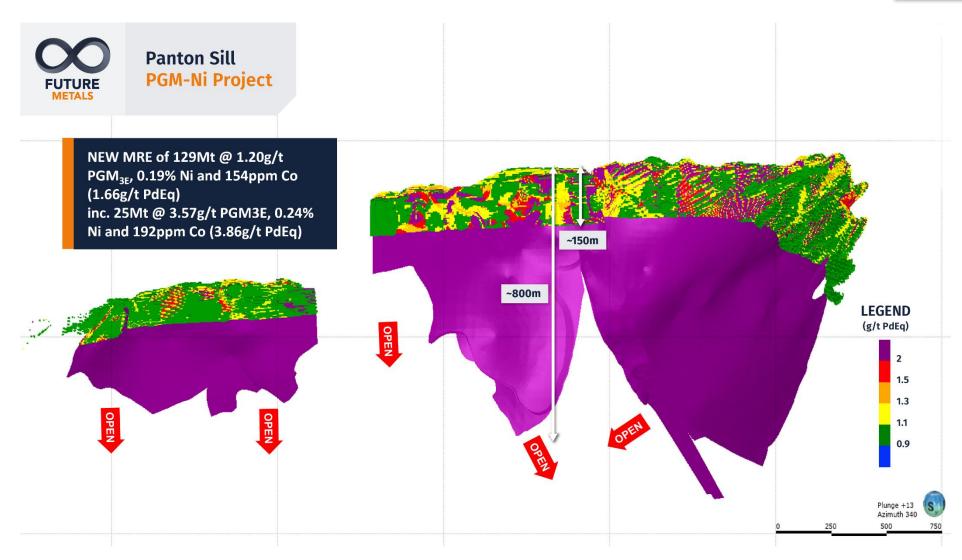


Figure Four | 3D View of Panton MRE Area Looking North-West



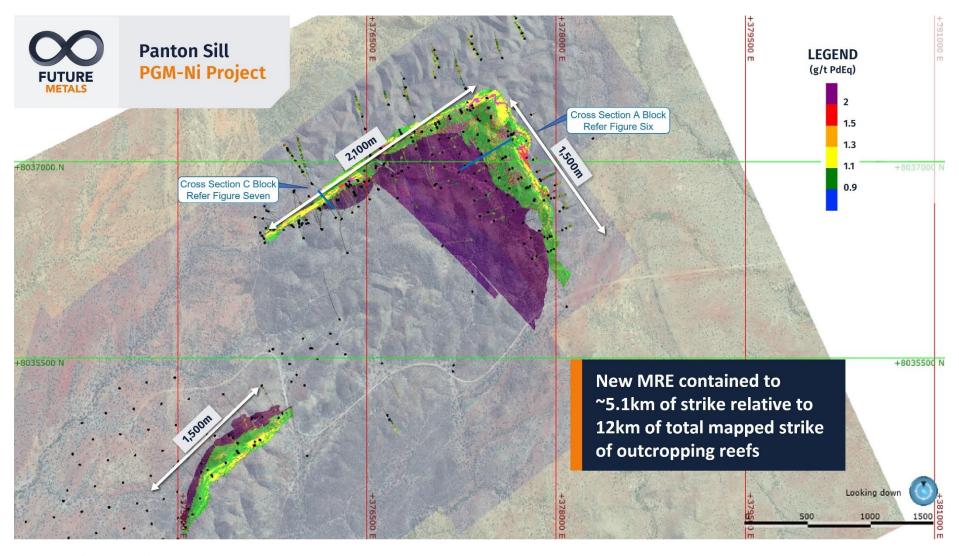


Figure Five | Plan View of Panton including MRE area



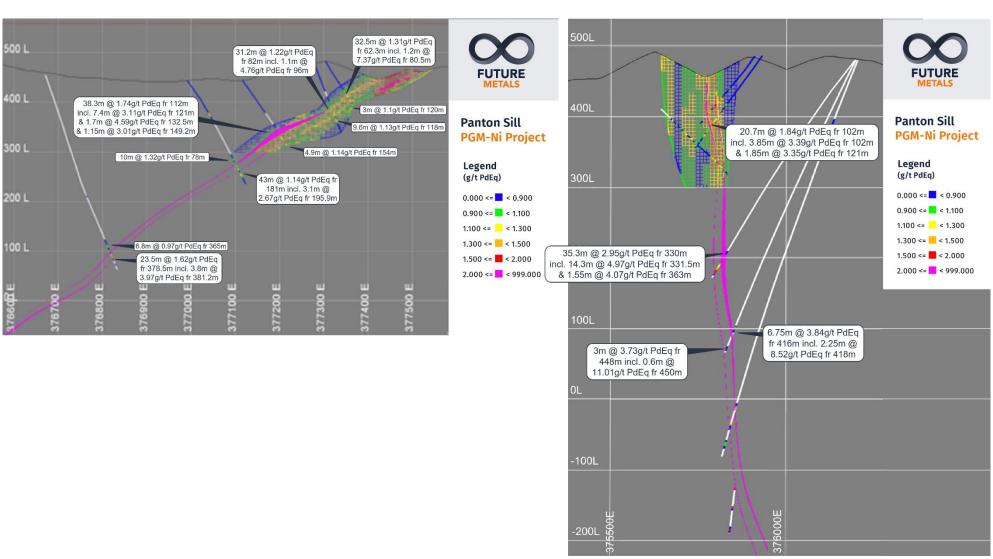


Figure Six | Cross Section of Panton Block Model – A Block

Figure Seven | Cross Section of Panton Block Model - C Block



Development Optionality | Forward Planning

The new MRE enables the Company to better assess the optimal development options available for the Panton PGM-Ni Project. The significant high-grade component of the MRE provides the Company with optionality on the potential future development path. This component of the MRE outcrops, is highly contiguous and has already been subject to extensive metallurgical flotation test work which has shown PGM recoveries to exceed 70% to a high-grade PGM concentrate grading >130g/t PGM, with testwork from Panoramic Resources demonstrating recoveries of over 80% and concentrate grading >200g/t PGM.

The Company is currently undertaking optimisation test work on the bulk PGM-Ni mineralisation. The MRE demonstrates the extent of this PGM-Ni mineralisation which may also provide scope for the Company to consider the production of high-value intermediate products.

Concurrent with this work, the Company will undertake scoping studies on the high-grade component and continue to delineate and explore for additional PGM, Ni and Cu mineralisation.

Exploration and Resource Growth

The MRE relates solely to the 5.1km of strike shown in Figure 5. There is a further ~7km of mapped outcropping reefs and associated anomalous surface geochemical samples (MAGLAG) which remain largely untested, located outside the MRE area. At depth, the deepest drill holes are approximately 800m, the majority of which intersect high-grade reef mineralisation. The high-grade reef is interpreted to be flattening as it dips to the south-west.

The Northern Anomaly & A Block North ("Lower Zone") is a significant target for follow up drilling, demonstrating potential for Resource volume growth as well as hosting zones with increased concentration of sulphides. The Lower Zone is interpreted to be a different style of mineralisation to the 'reef-style' mineralisation of the MRE area, as it is located closer to the basal contact zone, its mineralisation is more disseminated, and it demonstrates a higher base metals to PGM ratio. This 'contact-style' mineralisation is known to exhibit short-range variation in grades due to changes in the local geological structure. Examples of 'contact-style' mineralisation include Chalice Mining Ltd's recent Gonneville discovery, Ivanhoe's Flatreef project and the recent Callisto discovery by Galileo Mining Ltd.

The Company is currently planning further exploration drilling to test areas of potentially increased sulphide mineralisation along the strike and at depth at the Lower Zone. This planning includes the review of existing airborne aeromagnetic and electromagnetic data.



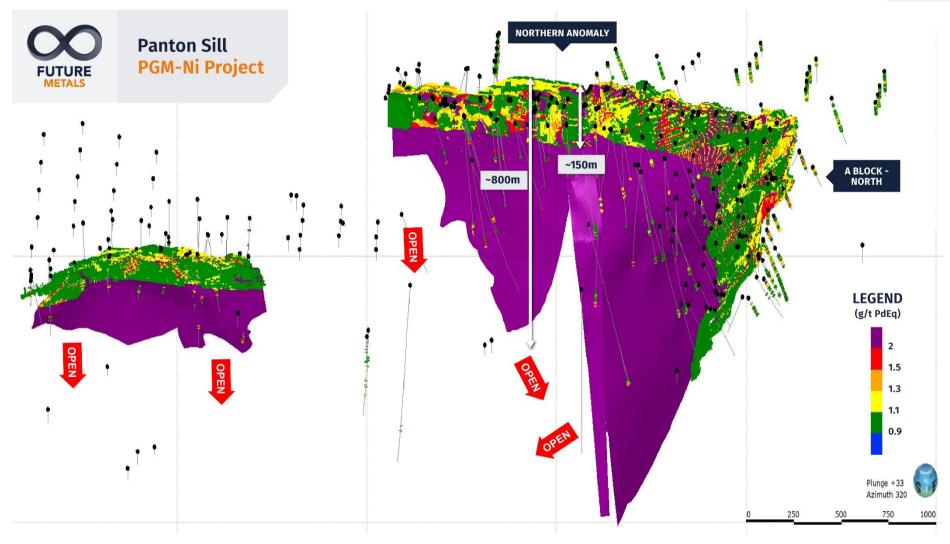


Figure Eight | 3D View of Panton MRE Area Looking North-West, including drill holes



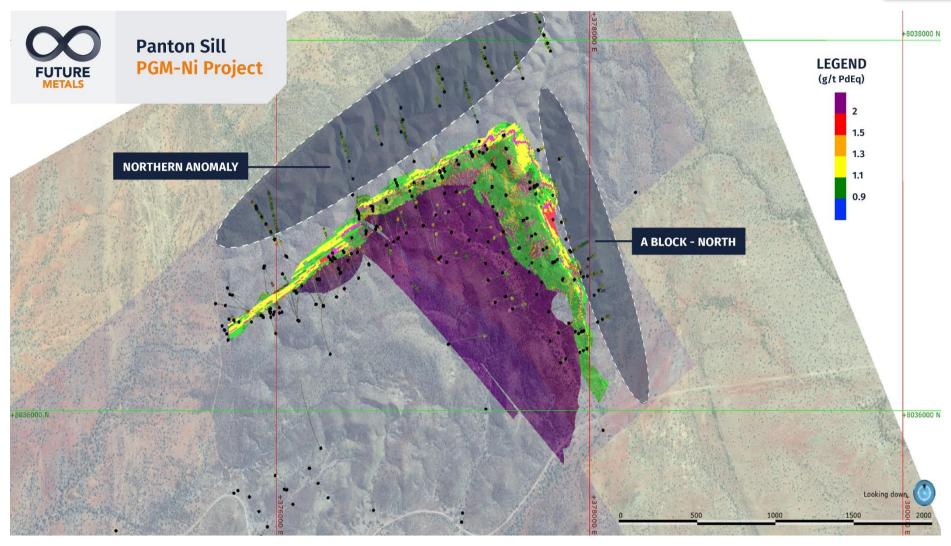


Figure Nine | Plan View of Panton including target zones for near-surface exploration



Metallurgical Update

The remodelling of the previous MRE to include shallow, bulk PGM and Ni mineralisation provides the scale to enable the Company to consider future processing of the lower grade PGM and Ni mineralisation. The Company's test work is now focussed on optimising recoveries and concentrate grades on the lower grade, bulk mineralisation.

Initial sighter test work on both low-grade composites (~2.3g/t PGM3E) and high-grade composites (~7.6g/t PGM3E), using a single stage rougher-scavenger test, yielded PGM3E recoveries of up to 68% and 71% respectively (with higher Pd recovery relative to the Pt recovery) with concentrate grades of up to 17g/t PGM3E for the low-grade composite and ~130g/t PGM3E for the high-grade composite. No cleaning stages were completed during these tests. Previous test work by Panoramic Resources on high-grade composites achieved recoveries of more than 80% and concentrate grades over 200g/t PGM3E. Recoveries for Ni ranged from 45 – 52% from a calculated head grade of 0.25% Ni across both the reef and dunite mineralisation.

These initial tests were exploratory in nature and the Company expects to achieve enhanced results as part of a more systematic programme as set out below.

Physical Separation

The Company has commenced physical separation test work utilising processing techniques which pre-concentrate or separate material feed based on its physical characteristics such as size, density or colour. Panton mineralisation is suitable given the difference in colour and density between chromite-rich ore, dunite, magnesite and talc. The Company is currently completing an ore sorting test work programme on a composite comprising the anticipated material feed from a bulk tonnage operation, supported by the new MRE. This may allow for the removal of gangue minerals ahead of the milling circuit. Prior test work has also demonstrated the amenability of extracting chromite from flotation tails to produce a chromite concentrate for sale as a by-product.

Flotation

The Company is undertaking flotation test work which seeks to replicate the unit operations common to South African PGM operations. This campaign will focus on the mineral deportment at each stage across a 3-stage mill-float flow sheet involving an initial coarse grind and float, primary grind and float, and regrind and float with cleaning. The majority of the previous test work on Panton high-grade mineralisation utilised a single-stage grind followed by a rougher float and scavenging stage. Initial sighter test work indicates that a single-stage grind generates slimes and liberates free-floating gangue materials which inhibit the flotation of the base metal and PGM-bearing minerals. A multi-staged approach avoids the issues associated with overgrinding, allows reagent regime to be adjusted through the flow sheet based on targeted outcomes at each stage, and reduces the mass pull and improve the PGM concentrate grade.

Given the mineralogical differences between the chromite reef and dunite mineralisation it is likely that two separate flow sheets will be developed for processing Panton mineralisation. This is common in South African operations which process Merensky (silicate) ores and UG2 (chromite) ores. The Sedibelo PGM project has been operating for over a decade and is particularly analogous to Panton given it is an open-pit operation mining a lower-grade silicate ore and a higher-grade chromite ore.

Hydrometallurgy

Prior test work has shown the potential for Panton to produce high value intermediate products with the Panton concentrate having good amenability to hydrometallurgical processing which provides several potential benefits over smelting¹, including:

- producing a refined product, allowing the producer to market directly to end customers, thereby improving payabilities and margins;
- less capital intensive;
- faster relative processing times leading to working capital position improvement;
- significantly less electricity consumption and reduction in SO2 and CO2 emissions; and
- increased flexibility for integrated upstream production.

A hydrometallurgy test work programme and scoping review will be initiated in H2 2022.

¹ 'Kell hydrometallurgical extraction of precious and base metals from flotation concentrates – Piloting, engineering, and implementation advances.' K.S. Liddell, M.D. Adams, L.A. Smith, and B. Muller



Summary of Resource Estimate and Reporting Criteria

Geology and mineralisation

The Panton Intrusion is a layered mafic-ultramafic intrusion situated within the structurally complex Central Zone of the Halls Creek Orogen ("**HCO**"), in the Kimberley region of Western Australia. The HCO consists of three north-north-easterly trending, highly deformed, medium to high-grade metamorphic zones comprising sedimentary, volcanic and intrusive rock suites. The HCO separates the Paleoproterozoic Kimberley Basin to the northwest, and the late Archaean Granites-Tanami Region to the southeast.

In outcrop the Panton intrusion is a 12km long, 3km wide and 1.7km thick layered, differentiated ultramafic-mafic body.

The Panton intrusion comprises a basal ultramafic zone of chromite rich olivine cumulate rocks; dunites, peridotites and transitional rocks, with an overlying mafic zone of similar thickness made up of leucogabbro, gabbro, ferrogabbro, gabbronorites, norites, pyroxenites, and anorthosite units.

The Panton intrusion has undergone a number of structural deformation events. These various events have 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 at the southwest end. Other dominant structural features include the numerous small scale and lesser large-scale faulting. The main orientation of faults strike north-south and nearly all have a sinistral movement sense; with displacements from cm scale to in the order of 1,000m for the large fault separating the C and D sub Blocks. Faulting orthogonal to this set is present but less pronounced.

The interpreted weathering profile for Panton is relatively simple, showing a resemblance to the topographic profile. There is a thin veneer of highly weathered material, consisting of predominantly red-brown soil, alluvium and colluvium that covers much of the project area. Its depth ranges from a few centimetres to up to 10m but is largely confined to less than 1m.

In all there are three mineralised horizons, the Upper group chromitites (situated within the upper gabbroic sequence), the Middle group chromitites (situated in the upper portion of the ultramafic cumulate sequence) and the Lower group chromitites (situated toward the base of the ultramafic cumulate sequence). The primary PGM resource is contained within the upper portion of the ultramafic sequence, which in turn has been divided into five zones:

- 1. Top Reef Mineralised Zone: a sheared chromitite/talc-carbonate-chromitite rock zone (average 1.5m true thickness)
- 2. Upper Dunite: comprising all rocks between the top and middle reef mineralised zones
- 3. Middle Reef Mineralised Zone: a thin (average 0.5m true thickness) chromitite reef with an associated talc-carbonate alteration halo
- 4. Lower Dunite: comprising all rocks between the middle and lower reef mineralised zones
- 5. Lower reef Mineralised Zone



Drilling techniques and hole spacing

Pancontinental Mining Ltd ("**Pancontinental**") and Minsarco Resources ("**Minsarco**") drill holes (PS001 to PS058) were drilled by diamond core drilling, either HQ or NQ2. A number of drill holes have daughter drill holes that were drilled BQ in size. Platinum Australia Limited ("PLA") drill holes, PS059 to PS379 were drilled using reverse circulation ("RC") and diamond coring, either PQ3, HQ3 or NQ3 in size. RC drilling employed a face sampling bit. A number of drill holes had RC pre-collars drilled in advance of a diamond core tail, but a number of drill holes were drilled completely with RC.

All of Future Metals drill holes were diamond core holes, either PQ3, HQ3 or NQ3 in size. The top 50m (approximately) of the drill holes were often drilled in PQ3 until competent rock was encountered. The drill hole was then cased off and continued in HQ3 size core drilling. Where there was a need to case off the HQ3 core drilling if the hole has difficulties, it was then continued in NQ3 size core drilling. PQ3 core diameter is 83.0mm, HQ3 core diameter is 61.1mm, NQ3 core diameter is 45.0mm, BQ core diameter is 36.5m. RC drilling bits have a diameter of 15.9cm.

Future Metals drill holes HQ3 and NQ3 core was orientated using a BLY TruCore UPIX Orientation Tool. PLA drill holes HQ3 and NQ3 core was orientated using a Reflex Orientation Tool. Pancontinental drill holes HQ3, NQ3 and BQ core was not orientated. Triple tubes are utilised in the weathered horizon (less than 10m) and standard tubes for the remainder of the drill hole.

Each core run was measured and checked against drillers core blocks. Any core loss was noted. To date core recoveries have been excellent with very little core loss reported. All RC drill hole samples were weighed in the field as a method of recording sample quality and recovery.

Drilling is planned to be as close to orthogonal to the mineralisation as practicable to get representative samples of the mineralisation. Data spacing down hole is considered appropriate at between 0.25m and 1m intervals.

Sampling and analysis methodology

All drill core and RC samples have been logged onsite by geologists to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. The logging is qualitative and records lithology, grain size, texture, weathering, structure, alteration, veining and sulphides. The core was digitally photographed, and all holes are logged in full.

All core that is sampled is cut using a diamond saw. HQ3, NQ2 and BQ core is cut in half with one half submitted for assaying and the other retained for reference. PQ3 core is cut in half, and then one half cut again into quarters. One quarter core is sent to the laboratory for assay and the remainder is kept for reference.

RC drilling was sampled from a rig mounted riffle splitter in 1m, or 0.5m intervals. Virtually all of the RC samples were dry, a small percentage were damp or wet, which was recorded in the logs. Sections of drill holes logged as unmineralised were samples of 4m composites using a PVC spear.

Generally, core samples are 1m in length, with a minimum sample length of 25cms. Sample lengths are altered from the usual 1m due to geological contacts, particularly around the chromitite reefs.

Future Metals sent assays for all drill holes to Bureau Veritas in Perth for Au, Pt and Pd analysis by lead collection fire assay (FA003) and As, Co, Cr, Cu, Ni and S by Mixed Acid Digest ICP-AES (MA101). PLA had samples outside of the upper reef assayed by Ultratrace, with Au, Pt and Pd determined by lead collection fire assay with ICPMS (method code FA003) and Co, Cr, Cu, Ni and S determined by Peroxide Fusion with (ICPAES), PLA also sent mineralised reef samples to Genalysis Laboratory Services in Perth and submitted them for nickel sulphide collection fire assay with ICPMS finish. As, Co, Cr, Cu, Ni and S were analysed by method code DX/OES, a sodium peroxide fusion and hydrochloric digest (nickel cruicibles) with ICPOES.



Quality assurance and quality control (QA-QC)

PLA and Future Metals submitted standards (Certified Reference Material) at a rate of 1 in 25 samples, and blanks were inserted at a similar rate, Blanks and standards were placed in the sample run to fall within the mineralized material as it was analyzed at the laboratory. Laboratory repeat analysis is completed on 10% of the samples submitted for assay.

Estimation methodology

Geological and mineralisation constraints were generated on the basis of logged chromitite reef lithology and 1.5g/t PGM_{3E}. The constraints were subsequently used in geostatistics, variography, block model domain coding and grade interpolation. Ordinary kriging was used for estimating Pd, Pt, Au, Cu, Ni, and Co.

The constraints were coded to the drillhole database and samples were composited in two ways. In the chromite reefs a single composite interval of varying length was generated which encompassed the downhole thickness of the entire interpreted interval. Outside the reefs, in the encompassing dunite material, 3m downhole length composites were generated.

A parent block size of 50mE by 50mN by 20mRL was selected with sub-celling to 1mE by 1mN by 1mRL to account for the extreme thickness variability of the chromite reefs. Comparison checks between the block models and wireframes indicate an adequate volume resolution at the selected level of sub celling.

Variography was generated for the various A Block lodes to enable estimation via ordinary kriging. Variography for the A Block lodes generally demonstrated the best structure and were adopted for the other lodes. Hard boundaries were used for the estimation throughout.

Input composite counts for the estimates were variable and set at a minimum of between 4 and a maximum of 6 and this was dependent on domain sample numbers and geometry. An selective mining unit ("**SMU**") dimension of 10m E by 10m N by 5m RL was selected for the estimation. Any blocks not estimated in the first estimation pass were estimated in a second pass with an expanded search neighbourhood and relaxed condition to allow the domains to be fully estimated. Extrapolation of the drillhole composite data is commonly approximately 200m to 300m beyond the edges of the drillhole data, however, may be considered appropriate given the overall style and occurrence of mineralisation in continuous chromite reef structures and the classification of such extended grade estimates as Inferred.

Density has been assigned to the block model via a combination of ordinary kriging and in the case of the dunites, direct assignment. Densities have been reduced within the dunites in the top 25m to reflect the partially weathered nature of this horizon. Prior to estimation, the reef intercepts without a directly measured density value were assigned a value by regression against Cr using the following formula:

density = 2.7 + (Cr% x 0.0508)

Mineral Resource classification and reporting

The MRE has been classified based on consideration of key criteria outlined in Section 1, 2 and 3 of the JORC Code Table 1. The Mineral Resource has been classified as either Indicated and Inferred. The classification is based on the relative confidence in the mineralised domain continuity countered by variable drill spacing. The classification of Indicated is only considered in areas where the drill spacing is better than approximately 100m strike by 100m down dip. The classification of Indicated applies to the chromite reefs only based on the more complete degree of sampling and better knowledge of the metallurgical parameters. Sampling in the dunite material was not completed for every drillhole and the sample spacing is therefore more irregular and incomplete. Metallurgical parameters are also so far unknown as testing is not yet complete. The Resource classification applies to the estimated block grade items of Pt, Pd, Au, Ni, Cr, Cu and Co only.

Reasonable Prospects for Eventual Economic Extraction ("RPEEE")

The MRE is considered to have RPEEE based on the following:

- Stable tenement status with no known impediments to land access
- Positive metallurgical characteristics indicated by test work to date
- The deposit geometry and size lend amenability to the proposed open pit mining methods.

Cut-off grades

A cutoff grade of 0.9g/t PdEq has been applied to the mineralised dunite estimate. No differentiation between oxide and fresh rock has been made. No cutoff grade has been applied to the chromitite reefs.



Palladium metal equivalents

Based on metallurgical test work completed on Panton samples, all quoted elements included in the metal equivalent calculation (palladium, platinum, gold, nickel, copper and cobalt) have a reasonable potential of being ultimately recovered and sold.

Metal recoveries used in the palladium equivalent (PdEq) calculations are in the midpoint of the range of recoveries for each element based on metallurgical test work undertaken to date at Panton. It should be noted that palladium and platinum grades reported in this announcement are lower than the palladium and platinum grades of samples that were subject to metallurgical test work (grades of other elements are similar).

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

- Reef: Palladium 80%, Platinum 80%, Gold 70%, Nickel 45%, Copper 67.5% and Cobalt 60%
- Dunite: Palladium 70%, Platinum 70%, Gold 70%, Nickel 45%, Copper 67.5% and Cobalt 60%

Assumed metal prices used are also shown below:

Palladium US\$1,700/oz, Platinum US\$1,300/oz, Gold US\$1,700/oz, Nickel US\$18,500/t, Copper US\$9,000/t and Cobalt US\$60,000/t

Metal equivalents were calculated according to the follow formulae:

- Reef: PdEq (Palladium Equivalent g/t) = Pd(g/t) + $0.76471 \times Pt(g/t) + 0.875 \times Au(g/t) + 1.90394 \times Ni(\%) + 1.38936 \times Cu(\%) + 8.23 \times Co(\%)$
- Dunite: PdEq (Palladium Equivalent g/t) = Pd(g/t) + $0.76471 \times Pt(g/t) + 0.933 \times Au(g/t) + 2.03087 \times Ni(%) + 1.481990 \times Cu(%) + 8.80 \times Co(%)$

Metallurgical methods and parameters

Initial sighter test work on both low-grade composites (~2.3g/t PGM3E) and high-grade composites (~7.6g/t PGM3E), using a single stage flotation rougher-scavenger test, yielded PGM3E recoveries of up to 68% and 71% respectively (with higher Pd recovery relative to the Pt recovery) with concentrate grades of up to 17g/t PGM3E for the low-grade and ~130g/t PGM3E for the high-grade composite. No cleaning stages were completed during these tests. Previous test work by Panoramic Resources Ltd on high-grade composites achieved recoveries of more than 80% and concentrate grades over 200g/t PGM3E. Recoveries for Ni ranged from 45 – 52% from a calculated head grade of 0.25% Ni across both the reef and dunite mineralisation.

These initial tests were exploratory in nature and highlighted the differences in mineralogy between the dunite and chromite reef. The Company expects to achieve enhanced results as part of a more systematic programme as previously set out.

Further metallurgical test work is in progress on both high-grade chromite composites and low-grade dunite composites to determine and optimise potential flow sheet configurations.

This announcement has been approved for release by the Board of Future Metals NL and lifts the trading halt requested by the Company on Friday 17 June 2022, effective immediately.

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Competent Person's Statement:

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information compiled by Mr Shane Hibbird, who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Hibbird is the Company's Exploration Manager and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a competent person as defined in the 2012 Edition of the "Australasian Code for reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves" (JORC Code). Mr Hibbird consents to the inclusion in this announcement of the matters based upon his information in the form and context in which it appears.

The information in this announcement that relates to Mineral Resources is based on, and fairly represents, information compiled by Mr Brian Wolfe, who is a Member of the Australian Institute of Geoscientists. Mr Wolfe an external consultant to the Company and is a full time employee of International Resource Solutions Pty Ltd, a specialist geoscience consultancy. Mr Wolfe has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a competent person as defined in the 2012 Edition of the "Australasian Code for reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves" (JORC Code). Mr Wolfe consents to the inclusion in this announcement of the matters based upon his information in the form and context in which it appears.

The information in this announcement that relates to Metallurgical Results is based on, and fairly represents, information compiled by Mr Brian Talbot, a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy. Mr Talbot is a full-time employee of R-Tek Group Pty Ltd (R-Tek) a specialist metallurgical consultancy. Mr Talbot has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a competent person as defined in the 2012 Edition of the "Australasian Code for reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves" (JORC Code). Mr Talbot consents to the inclusion in this announcement of the matters based upon his information in the form and context in which it appears.

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulation (EU) No. 596/2014 as is forms part of United Kingdom domestic law pursuant to the European Union (Withdrawal) Act 2018, as amended.



Appendix Three | JORC Code (2012) Edition Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 	 HQ3, NQ2 and BQ core was cut in half, one half retained in the core tray for reference, the other sent to the laboratory for analysis. Reverse circulation ("RC") sampling by Platinum Australia Limited ("PLA") was by a combination of 4m composites produced by spearing 1m bulk samples and 1m split samples taken from the rig mounted sample splitter. All sampling was either supervised by, or undertaken by, qualified geologists. To ensure representative sampling, for cored drill holes, when looking down hole, the left-hand
	 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 (e.g. 'reverse 	side of the core was always sent for assay. At the laboratory the entire half core sample was crushed, a 300g split was pulverised to provide material for fire assay, ICP-MS and/or XRF analysis.
	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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Not all core or sections drilled with RC (in particular pre-collars) were sampled. Intervals of rock that were not recognized as potentially mineralised from the geological logging were not always sampled.
Drilling techniques	 Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.). 	■ Drill holes PS001 to PS058 completed by Pancontinental Mining Ltd ("Pancontinental") and Minsarco Resources NL ("Minsarco") were drilled by diamond core drilling, either HQ and NQ2. A number of drill holes have daughter drill holes that were drilled BQ in size.
		 Drill holes PS059 to PS379 completed by PLA were drilled using RC and diamond coring, either PQ3, HQ3 or NQ3 in size. RC drilling employed a face sampling bit. A number of drill holes had RC pre- collars drilled in advance of a diamond core tail, but a number of drill holes were drilled completely with RC.
		All Future Metals drill holes were diamond core holes, either PQ3, HQ3 or NQ3 in size. Generally, the top 50m (approximately) of the other drill holes were drilled in PQ3 until competent rock was encountered. The drill hole was then cased off and continued in HQ3 size core drilling. Where there was a need to case off the HQ3 core drilling if the hole had difficulties, it was then continued in NQ3 size core drilling.
		 PQ3 core diameter is 83.0mm, HQ3 core diameter is 61.1mm, NQ3 core diameter is 45.0mm, BQ core diameter is 36.5m. RC drilling bits have a diameter of 15.9cm.
		Future Metals' drill holes were orientated using a BLY TruCore UPIX Orientation Tool.
		■ PLA drill holes were orientated using a Reflex Orientation Tool.
		Pancontinental drill holes were not orientated.
		 Triple tubes are utilised in the weathered horizon (less than 10m) and standard tubes for the remainder of the drill hole.



Criteria	JORC Code explanation	Commentary
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 Each core run is measured and checked against drillers' core blocks. Any core loss is noted. Core recoveries have been excellent with very little core loss reported. All RC drill hole samples were weighed in the field as a method of recording sample quality and recovery Drilling was planned to be as close to orthogonal to the mineralisation as practicable to get representative samples of the mineralisation.
		No relationship between recovery and grade has been identified.
Logging	 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	 All drill core and RC samples have been logged onsite by geologists to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Logging is qualitative and records lithology, grain size, texture, weathering, structure, alteration, veining and sulphides. Core is digitally photographed. All holes are logged in full.
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 All core that is sampled is cut using a diamond saw. HQ3, NQ2 and BQ core is cut in half with one half submitted for assaying and the other retained for reference. PQ3 core is cut in half, and then one half cut again into quarters. One quarter core is kept as reference, one quarter core is sent to the laboratory for assay and the remaining half core is sent for metallurgical test work. RC drilling by PLA was sampled from a rig mounted riffle splitter in 1m, or half metre intervals. Virtually all of the RC samples were dry, a small percentage were damp or wet, this was recorded in the logs. All RC samples were weighed on site to monitor sample recovery. Sections of drill holes logged as unmineralised were sampled as 4m composites using a PVC spear. Generally, core samples are 1m in length, with a minimum sample length of 25cm. Sample lengths are altered from the usual 1m due to geological contacts, particularly around the chromitite reefs. RC drill holes had field duplicate samples taken at the rate of 1 in 25 samples. In the case of 1m samples, a second split was taken from the riffle splitter or the bulk sample was passed through a 50/50 riffle splitter several times to produce a sample of about 1kg in size. Composite samples were duplicated by spearing the original bags twice. PLA took occasional ¼ core samples and assayed them as a check against the original ½ core sample assayed. The sample size is considered appropriate for the material being sampled.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. 	 Future Metals sent samples for all resource and exploration drill holes to Bureau Veritas in Perth for Au, Pt and Pd analysis by lead collection fire assay (FA003) and As, Co, Cr, Cu, Ni and S by Mixed Acid Digest ICP-AES (MA101). PLA had samples outside of the upper reef assayed by Ultratrace, with Au, Pt and Pd determined by lead collection fire assay with ICPMS (method code FA003) and Co, Cr, Cu, Ni and S determined by Peroxide Fusion with (ICPAES).



Criteria	IODC Code evaluation	Commontony
Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	 PLA also sent mineralised reef samples to Genalysis Laboratory Services in Perth and submitted them for nickel sulphide collection fire assay with ICPMS finish. As, Co, Cr, Cu, Ni and S were analysed by method code DX/OES, a sodium peroxide fusion and hydrochloric digest (nickel crucibles) with ICPOES.PLA and Future Metals submitted standards (Certified Reference Material) at a rate of 1 in 25 samples, and blanks were inserted at a similar rate. Blanks and standards were placed in the sample run to fall within the mineralised material as it was analysed at the laboratory. All analytical methods employed are considered total.
		No geophysical tools were used.
		 Laboratory repeat analysis was completed on 10% of the samples submitted for assay.
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. 	 Primary data: drill hole data, geological logging, sample intervals etc. are all recorded initially on hard copy in the field and then entered digitally. Maps and cross sections are produced and the digital data verified.
	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	 Future Metals has established a Datashed SQL database and appropriate protocols, to manage and store drilling data.
	Discuss any adjustment to assay data.	 All significant intercepts are calculated by the Company's Exploration Manager and checked by management.
		PLA and Future Metals twinned several drill holes.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. 	 All drill holes were located initially with handheld GPS but then re-surveyed with a differential GPS system to get locational accuracy's to <0.1m.
	 Specification of the grid system used. Quality and adequacy of topographic control. 	 Down hole surveys are taken with a north seeking gyroscope at regular intervals of 30m down hole in drill holes completed by Future Metals. All drill holes completed by PLA were surveyed with a single shot Eastman down hole camera with a number re-surveyed with a north seeking gyroscope as a comparison and a check against interference of the down hole camera surveys against the local magnetism within the host ultramafic rocks. PLA found that in general the down hole camera surveys were acceptable, with the rare individual surveys required to be rejected due to obvious spurious readings from local bands of magnetite within the ultra-mafic host rocks. Survey methods for the drill holes completed by Pancontinental was by down hole camera, and the drill holes completed by Minsarco were surveyed with a combination of down hole cameras and acid bottle methods. Minsarco, Pancontinental and PLA drilling was initially located on a local grid system which was reinstalled by PLA using metal survey stakes by Whelan's surveyors in Kununurra. The local grid has survived and is in good condition in the field today. Location data was then converted to the Australian Map Grid 1966, Zone 52. Future Metals has then converted this location data to Map Grid of Australia 1994, Zone 52.
		 Future Metals drilling is located using Map Grid of Australia 1994, Zone 52. The topographic control is considered better than <3m and is considered adequate.



Criteria	JORC Code explanation	Commentary
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	No new Exploration Results reported in this announcement.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	Drilling is designed to be as close to orthogonal as practicable to the dip and strike of the mineralised chromitite reefs within the Panton Intrusion.
Sample security	■ The measures taken to ensure sample security.	 Drillhole samples are delivered to the Company's transport contractor's yard in Halls Creek directly by Company personnel. Samples are then delivered to the laboratory by the Company's transport contractor.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No independent audit has been conducted.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	 The Panton PGM-NI Project is located on 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. 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. There are no impediments to working in the area.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 The Panton deposit was discovered by the Geological Survey of Western Australia from surface mapping conducted in the early 1960s. Pickland Mather and Co. drilled the first hole to test the mafic-ultramafic complex in 1970, followed by Minsarco which drilled 30 diamond holes between 1976 and 1987. In 1989, Pancontinental drilled a further 32 drill holes and defined a non-JORC compliant resource. PLA acquired the project in 2000 and conducted the majority of the drilling, comprising 166 holes for 34,410m, leading to the delineation of a maiden JORC Mineral Resource Estimate.



Criteria	JORC Code explanation	Commentary
		 Panoramic Resources Ltd ("Panoramic") subsequently purchased the Panton PGM-Ni Project from PLA in May 2012 and conducted a wide range of metallurgical test work programmes on the Panton mineralisation.
Geology	Deposit type, geological setting and style of mineralisation.	 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 some 12km long and 3km wide. PGM mineralisation is associated with several thin cumulate Chromitite reefs and the surrounding dunite within the ultramafic sequence. In all 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). The top reef mineralised zone has been mapped over approximately 12km.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	■ No exploration results reported in this announcement. ■ No new Exploration Results are reported in this announcement. ■ Where palladium equivalents (PdEq) are reported, these values are based on the following assumptions: ■ Prices in USD \$/(t or oz) Cu % 9,000 Pt ppm 1,300 Au ppm 1,700 Pd ppm 1,700 Ni % 18,500 Co ppm 60,000 ■ Metallurgical recoveries are based on test work undertaken by Platinum Australia Ltd, Panoramic Resources Ltd and Future Metals NL and are as follows: Recovery Reef Dunite % % % Cu % 67.5% 67.5% Pt ppm 80.0% 70.0% Au ppm 70.0% 70.0% Au ppm 70.0% 70.0% Pd ppm 80.0% 70.0% Ni pct 45.0% 45.0% Co ppm 60.0% 60.0%



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	No new Exploration Results are reported in this announcement.
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 Appropriate map sections are included in the body of this announcement.
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	No new Exploration Results reported in this announcement.
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	 All material exploration data is included in this announcement including geology and mineralisation, drilling techniques, sampling and analysis methodology, QC-QC, Mineral Resource estimation methodology, Mineral Resource classification and reporting, cut-off grades, metallurgical parameters.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Further metallurgical test work is being undertaken. Further infill drilling will be undertaken to improve confidence in the MRE. There are numerous areas along the strike of the MRE area where geological interpretation suggests a continuation of mineralisation however drilling is limited. These areas will be followed up to confirm continuity of the mineralisation near surface. Further exploration work and drilling is being planned to test the most prospective areas along strike, at depth, and the 'Northern Anomaly' zone.



Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	 Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	• All data is stored in a Datashed SQL database. Future Metals employs a Database Manager who is responsible for the integrity and efficient use of the system. Only the Database Manager has permission to modify the data. It has been thoroughly checked for consistency. For example, sampling and geological logging data is initially collected in the field on hard copy logs then entered digitally by the Geologist into Microsoft Excel. The data is checked by plotting sections and maps in MapInfo Discover GIS software and once verified by the Geologist it is uploaded digitally into Datashed by the Database Manager. The software utilises lookup tables, fixed formatting and validation routines to ensure data integrity prior to upload to the central database. Sampling data is sent to, and received from, the assay laboratory in digital format. Drill hole collars are picked up by differential GPS (DGPS) and delivered to the database in digital format. Down hole surveys are delivered to the database in digital format.
		■ DataShed software has validation procedures that include constraints, library tables, triggers and stored procedures. Data that does not pass validation tests must be corrected before upload. Geological logging data is checked visually in three dimensions against the existing data and geological interpretation. Assay data must pass laboratory QAQC before database upload. Sample grades are checked visually in three dimensions against the logged geology and geological interpretation. Drill hole collar pickups are checked against planned and/or actual collar locations. A hierarchical system is used to identify the most reliable down hole survey data. Drill hole traces are checked visually in three dimensions. The Exploration Manager is responsible for interpreting the down hole surveys to produce accurate drill hole traces.
		■ The historical PLA data was uploaded from a Microsoft Access relational database into the current version of Maxwell Geoservices Datashed. Most of the sample assay data was re-loaded from the original assay files supplied form the various laboratories to ensure OAQC protocols were honoured.
Site visits	 Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	■ The CP has not yet conducted a site visit and has relied on information provided by Future Metals' technical personnel, some of whom have been involved with the project since 2001. A site visit has not been deemed necessary at this point as the geological interpretation of the mineralised system is not substantially different to that of the previous MRE. A site visit is nevertheless considered necessary for any future updates.



Criteria	JORC Code explanation	Commentary		
Geological interpretation	 Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. 	The confidence in the interpretation is high as a result of a predominance of core logging and underground mapping information from surface sampling, drilling and exploration mining activity.		
	 Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. 	 Wireframe models of the mineralised volumes have been made by independent consultants RTEK Group and provided to the CP. 		
		The current geological interpretation is based on the logged and assayed chromite content within the host dunite sequence. Significant sulphide percentage was also used in the criteria to identify reef mineralisation defined by a PdEq cut off of 1.5g/t.		
		 Alternative interpretations have not been considered for the purpose of Mineral Resource Estimation as the current interpretation is thought to represent the best fit based on the current level of data. 		
		The mineralised dunite is interpreted to be a south plunging synclinal feature, this geol interpretation is based on geological logging of drill hole data. A series of four major shear interpreted to cut-off or offset the mineralisation and separate the mineralisation into a series discrete blocks.		
		 In the CP's opinion there is sufficient information available from drilling to build a plausible geological interpretation that is of appropriate confidence for the classification of the Mineral Resource Estimate. 		
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource	■ The Mineral Resource Estimate area has overall dimensions of approximately 5,100m of strike length and has been intercepted in drillholes to 800m depth below surface.		
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer	 Geological and mineralisation constraints were generated on the above basis by RTEK Group. The constraints were subsequently used in geostatistics, variography, block model domain coding and grade interpolation. Ordinary kriging was used for estimating Pd, Pt, Au, Cu, Ni, Cr and Co. 		
	assisted estimation method was chosen include a description of computer software and parameters used.	Based on the OK estimates for the above elements, a series of regression formulae have been used to assign grades for the rare PGE's Os, Ir, Rh and Ru. The regression formulae themselves have been historically developed based on work completed by PLA prior to 2003 and have not been checked by the CP. The assigned grade values for the above rare PGE's are an indication of the expected grades and should not be used in any economic evaluation.		
		■ The constraints were coded to the drillhole database and samples were composited in two ways. In the chromite reefs a single composite interval of varying length was generated which encompassed the downhole thickness of the entire interpreted interval. Outside the reefs, in the encompassing dunite material, 3m downhole length composites were generated.		
		A parent block size of 50mE by 50mN by 20mRL was selected with sub-celling to 1mE by 1mN by 1mRL to account for the extreme thickness variability of the chromite reefs. Comparison checks between the block models and wireframes indicate an adequate volume resolution at the selected level of sub celling.		



Criteria	JORC Code explanation	Commentary
		 Variography was generated for the various A Block lodes to enable estimation via ordinary kriging Variography for the A Block lodes generally demonstrated the best structure and were adopted fo the other lodes. Hard boundaries were used for the estimation throughout.
		Input composite counts for the estimates were variable and set at a minimum of between 4 and maximum of 6 and this was dependent on domain sample numbers and geometry. Any blocks no estimated in the first estimation pass were estimated in a second pass with an expanded search neighbourhood and relaxed condition to allow the domains to be fully estimated. Extrapolation of the drillhole composite data is commonly approximately 200m to 300m beyond the edges of the drillhole data, however, may be considered appropriate given the overall style and occurrence of mineralisation in continuous chromite reef structures and the classification of such extended graduestimates as Inferred.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	Previous Resource estimates are >20 years old and were re-stated in 2015 under JORC 2012 Current estimated grades and tonnages are approximately in line with the historical resource estimates for the chromite reefs only. Resource estimates for the mineralised dunite were no estimated at this time.
1	The assumptions made regarding recovery of by-products.	No by-products are currently assumed.
1	 Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). 	No other elements have been assayed.
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The parent block estimation was selected to be 10mN x10mE x 10mRL throughout, with sub-celling for domain volume resolution. The parent block size was chosen based on mineralised bodie dimension and orientation, estimation methodology and relates to a highly variable drill section spacing and likely method of a mixture of future underground production. The search ellipse was oriented in line with the interpreted mineralised bodies. Search ellipse dimensions were chosen to encompass adjacent drillholes on sections and adjacent lines of drilling along strike and designed to fully estimate the mineralised domains. Overall, the estimation parent block dimension may be considered small, however coupled with the low numbers of input samples, it is considered unlikely that this will have resulted in significant distortion of the grade tonnage curve.
	 Any assumptions behind modelling of selective mining units. 	 Selective mining assumptions of a 10m by 10m by 5m RL SMU for open pit mining were made. Fo underground mining, it has been assumed that full seam width mining will be undertaken
	 Any assumptions about correlation between variables. 	■ The following variables are strongly correlated within the chromite reefs only- Pd, Pt and Cr.
	Description of how the geological interpretation was used to control the Resource estimates.	 The geological model domained the mineralized lode material and were used as hard boundarie for the estimation.



Criteria	JORC Code explanation	Commentary
	Discussion of basis for using or not using grade cutting or capping.	■ To limit the effects of extreme grades the following high-grade limits were applied to the composited grade values prior to the OK estimations; in the case of the reefs gold was cut to 1.5g/t; copper 0.3%. For the dunite domains, Au was cut to 1ppm, Co was cut to 0.2%, Cr was cut to 5%, Cu was cut to 0.2%, Pd was cut to 2g/t and Pd to 1.5g/t.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	The block model estimates were validated by visual comparison of block grades to drillhole composites, comparison of composite and block model statistics and swath plots of composite versus whole block model grades.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	■ The tonnages are estimated on a dry basis.
Cutoff parameters	■ The basis of the adopted cutoff grade(s) or quality parameters applied	 A 0.9g/t Pd Eq cutoff grade was used to report the Mineral Resources in the Dunite domains. No cutoff was applied to the reporting of the chromite reefs. This cutoff grade is estimated to be the minimum grade required for economic extraction.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	A mixture of open pit and underground mining is assumed however no rigorous application has been made of minimum mining width, internal or external dilution.
Metallurgical factors or assumptions	■ The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	 Metallurgical testwork is considered to be at an early stage. Bench scale flotation testwork has demonstrated the following: Initial sighter test work on both low-grade composites (~2.3g/t PGM3E) and high-grade composites (~7.6g/t PGM3E), using a single stage rougher-scavenger test, yielded PGM3E recoveries of up to 68% and 71% respectively (with higher Pd recovery relative to the Pt recovery) with concentrate grades of up to 17g/t PGM3E for the low-grade and ~130g/t PGM3E for the high-grade composite. No cleaning stages were completed during these tests. Previous test work by Panoramic Resources on high-grade composites achieved recoveries of more than 80% and concentrate grades over 200g/t PGM3E. Recoveries for Ni ranged from 45 – 52% from a calculated head grade of 0.25% Ni across both the reef and dunite mineralisation.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status	No consideration has yet been given to environmental matters such as waste and process residue disposal options or the environmental impacts of a mining and processing operation. The Resource estimate assumes that the Company will be able to obtain all required environmental permitting in a manner that does not adversely affect the Resource estimate.



Criteria	JORC Code explanation	Commentary
	of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made	
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	 Direct measurements of Dry Bulk Densities have been taken for all domains. Typically, a 10cm billet has been determined on a representative basis in the mineralised portion. A total of 689 measurements were available for estimation.
	 The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit, Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	Density measurements were undertaken using a core cylinder measurement technique, with 10% being determined by water immersion methods. Given the shallow weathering profile of the project area these density measurements on competent core are considered representative of the mineralised material.
		 Densities have been estimated into blocks within the reef domains using identical parameters as the Pd OK estimates and this is appropriate given the high degree of correlation between the two variables.
		■ In the case of the mineralised dunite, where there is no evidence for a strong correlation between densities and degree of mineralisation, densities have been applied as a single value of 2.9 t/m³ and this has been reduced to 2.5 t/m³ for the upper weathered 25m below the surface.
Classification	 The basis for the classification of the Mineral Resources into varying confidence categories Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit. 	■ The Mineral Resource has been classified as Indicated and Inferred. The classification is based on the relative confidence in the mineralised domain continuity countered by variable drill spacing. The classification of Indicated is only considered in areas where the drill spacing is better than approximately 100m strike by 100m down dip. The classification of Indicated applies to the chromite reefs only based on the more complete degree of sampling and better knowledge of the metallurgical parameters. Sampling in the dunite material was not completed for every drillhole and the sample spacing is therefore more irregular and incomplete. Metallurgical parameters are also so far unknown as testing is not yet complete.
		Additionally, the Resource classification applies to the estimated block grade items of Pt, Pd, Au, Ni, Cr, Cu and Co only. The regressed grades for rare PGE's Os, Ir, Rh and Ru are only an indication of the grade as they are based on relatively few assayed samples in comparison to the block grade items estimated via OK. The regressed grades for rare PGE's should not be used in definitive economic analysis.
		■ The validation of the block model shows moderately good correlation of the input data to the estimated grades.
		The Mineral Resource Estimate appropriately reflects the view of the Competent Persons.



Criteria	JORC Code explanation	Commentary
Audits or reviews	 The results of any audits or reviews of Mineral Resource estimates. Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the Resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic 	 No external audits or reviews have been undertaken The relative accuracy of the Mineral Resource Estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. The statement relates to global estimates of tonnes and grade. Mining activity has not taken place apart from minor underground activity by PLA which was intended to bulk sample the reefs at depth only
	 evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available 	