**20 January 2022**

# Exploration Update

MELBOURNE, Australia – Sam Riggall, CEO and Managing Director of Sunrise Energy Metals Limited (**Sunrise Energy Metals** or **Company**) (ASX:SRL and OTC:SREMF) is pleased to provide an update on exploration drilling activities at the Sunrise East and Phoenix Platinum prospects.

**Sunrise East:**

- **The first two diamond drill holes completed at Sunrise East (SDD029 and SDD030) intersected a cobalt-bearing laterite zone in ultramafic rocks and porphyry-style alteration associated with more evolved mafic to felsic intrusions.**
- **Hole SDD029 returned 5.8m @ 1120 ppm cobalt near surface with encouraging grades of nickel, scandium and platinum in the oxide zone. Hole SDD030 intersected multiple mafic to felsic intrusive phases with encouraging minor copper mineralisation and wide intervals of porphyry-style red rock alteration.**
- **A third diamond drill hole (SDD031) is currently underway with gold, platinum and multi-element assays, petrography and age dating studies in progress on the first two holes.**
- **An application has been submitted for a follow up 53-hole RC drill program to test the extent of further cobalt and nickel mineralisation at Sunrise East.**

**Phoenix Platinum:**

- **The Phase 2 diamond drill holes completed at Phoenix Platinum Prospect intersected multiple intervals of platinum mineralisation, though platinum grades are lower than previous bonanza grades intersected in the Phase 1 drill program (for further details see ASX announcement dated 22 June 2021). Work on understanding controls to mineralisation is continuing.**

CEO, Sam Riggall stated: *"The Company's growing exploration portfolio continues to offer exciting opportunities which we will continue to progress. Our exploration activities remain focussed on expanding our understanding of the geological potential of our broader tenement package, ensuring that we can maximise the potential from our core activity which remains progressing the Sunrise Battery Materials Project into production."*

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## SUNRISE EAST (EL4753)

EL4573 is located to the east and west of the Sunrise project ML1770 (see Figure 1). Sunrise Energy Metals reprocessed and modelled airborne magnetics associated with the eastern part of EL4573 which covers a strong discrete magnetic high of dimensions 2.0x1.5km. Preliminary interpretation suggested that the magnetic feature has a high potential to be an intrusive complex with numerous crosscutting zones of magnetic destruction associated with hydrothermal alteration.

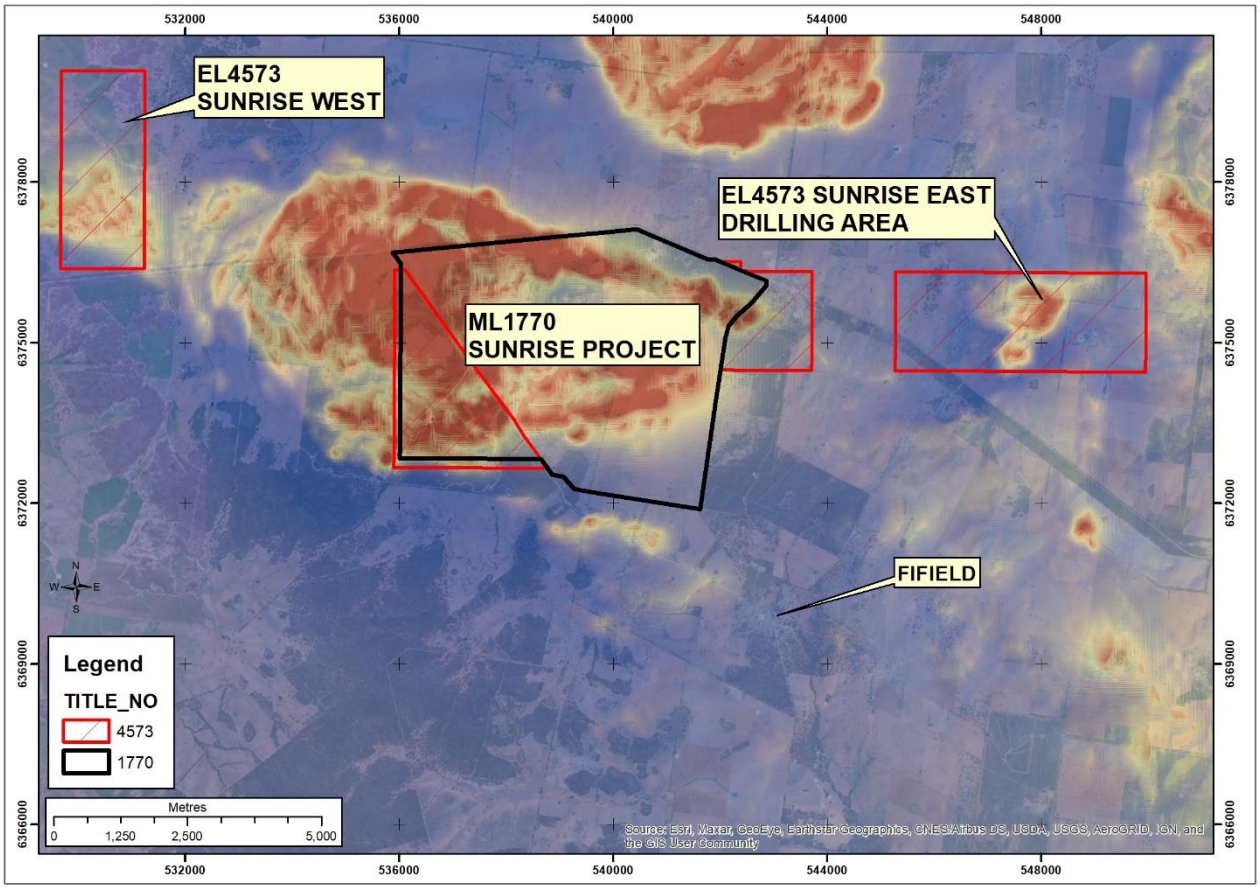


*Figure 1. Location of EL4573 Sunrise East Drill area and ML1770 Sunrise Project with magnetics TMI-RTP (source Geological Survey New South Wales).*

The first hole at Sunrise East (SDD029) targeting a magnetic anomaly intersected laterite and saprolite from surface to a depth of 12.8m before intersecting ultramafic pyroxenite and dunite lithologies (Figure 2). Assay results have been received from the oxide zone and have returned cobalt grades comparable to the Sunrise Project resource. Cobalt intercepts included 11m @829ppm from 1.8 to 12.8m, including 5.8m @ 1120ppm from 7 to 12.8m. The drill hole also intersected a thick interval of strong silica-carbonate-fuchsite-pyrite alteration on the contact of the intrusive and sedimentary country rocks. Base metal sulphides and pyrite were observed throughout this interval and the zone has characteristics typically associated with a carbonate-base metal-gold system. Assays below the oxide zone are pending.

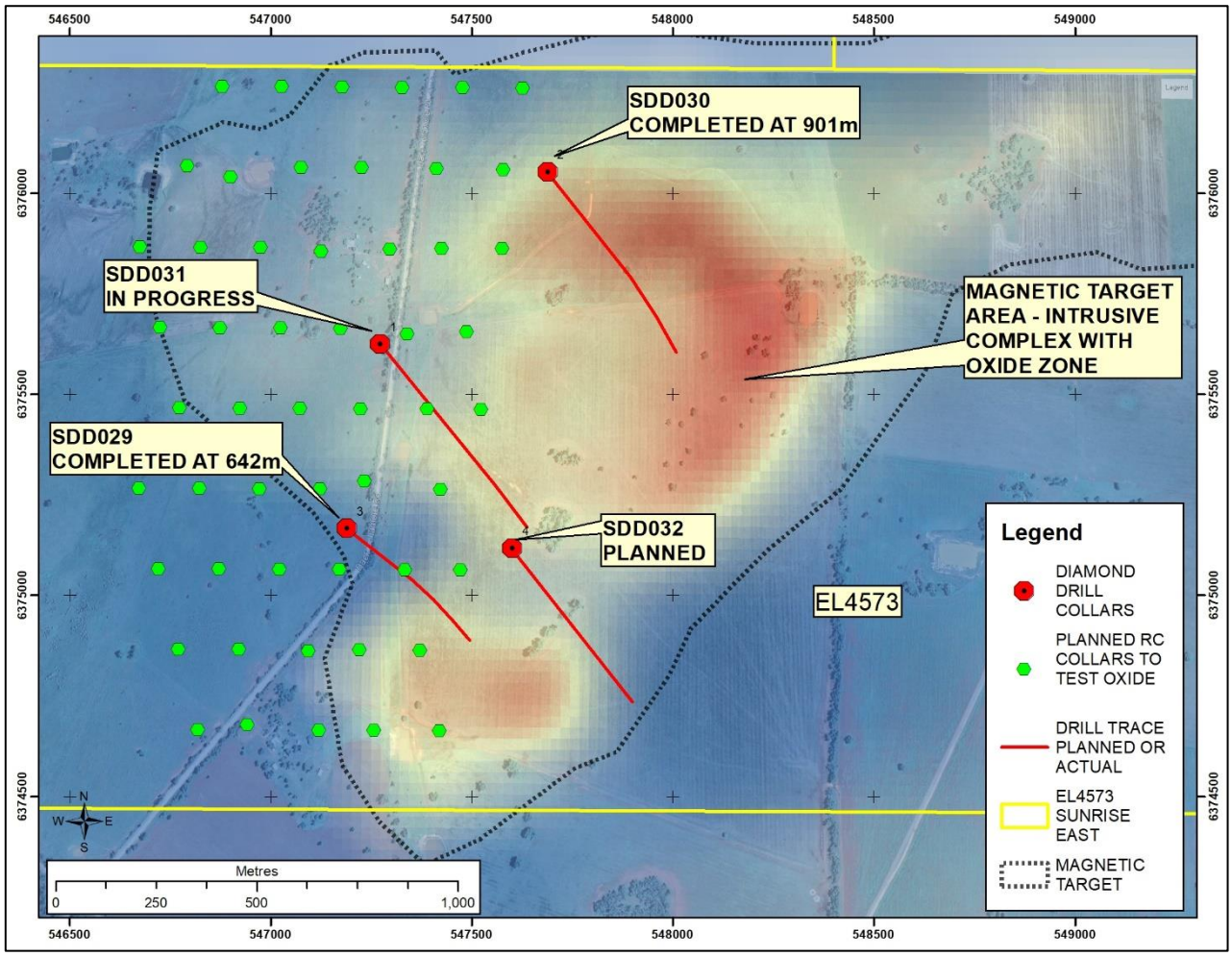


*Figure 2. Location of completed and planned collars Sunrise East EL4573.*

On the strength of the cobalt assay results from SDD029, and the extent of the intrusive complex from magnetic imagery, Sunrise Energy Metals has designed a 53-hole reverse circulation drilling program. This drilling program will test the extent and tenor of cobalt-bearing oxide mineralisation over the western half of the Sunrise East intrusive complex. The drill holes will also be extended into fresh ultramafic rock and will be assayed for platinum group elements.


*Cobalt-rich laterite core from Sunrise East SDD029.*

| Intercepts | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **PROSPECT** | **Hole** | **From (m)** | **To (m)** | **Interval (m)** | **Co ppm** | **Ni ppm** | **Sc ppm** | **Pt ppm** | **Pd ppm** | **Association** |
| Sunrise East | SDD029 | 0 | 1.35 | 1.35 | 200 | 930 | 80 | 0.0545 | 0.01 | Laterite |
| Sunrise East | SDD029 | 1.35 | 1.8 | 0.45 | 390 | 1080 | 60 | 0.0716 | 0.01 | Laterite |
| Sunrise East | SDD029 | 1.8 | 2.32 | 0.52 | 610 | 1590 | 80 | 0.0786 | 0.015 | Laterite |
| Sunrise East | SDD029 | 2.32 | 3 | 0.68 | **1100** | 1580 | 80 | 0.0829 | 0.015 | Laterite |
| Sunrise East | SDD029 | 3 | 4.5 | 1.5 | 520 | 870 | 90 | 0.0898 | 0.022 | Laterite |
| Sunrise East | SDD029 | 4.5 | 5 | 0.5 | 300 | 530 | 140 | 0.0571 | 0.029 | Laterite |
| Sunrise East | SDD029 | 5 | 6.1 | 1.1 | 230 | 330 | 150 | 0.0542 | 0.026 | Laterite |
| Sunrise East | SDD029 | 6.1 | 7 | 0.9 | 420 | 460 | 330 | 0.0483 | 0.02 | Laterite |
| Sunrise East | SDD029 | 7 | 7.7 | 0.7 | 740 | 750 | 440 | 0.0685 | 0.026 | Laterite |
| Sunrise East | SDD029 | 7.7 | 8.25 | 0.55 | 800 | 1890 | 340 | 0.0637 | 0.021 | Laterite |
| Sunrise East | SDD029 | 8.25 | 9.05 | 0.8 | **1000** | 2800 | 170 | 0.0777 | 0.017 | Laterite |
| Sunrise East | SDD029 | 9.05 | 9.9 | 0.85 | **1100** | 3110 | 80 | **0.121** | 0.02 | Laterite |
| Sunrise East | SDD029 | 9.9 | 10.72 | 0.82 | **1120** | 3220 | 90 | **0.121** | 0.025 | Laterite |
| Sunrise East | SDD029 | 10.72 | 11.4 | 0.68 | **1430** | 3560 | 110 | 0.0873 | 0.023 | Laterite |
| Sunrise East | SDD029 | 11.4 | 12.12 | 0.72 | **1350** | 4830 | 90 | **0.13** | 0.021 | Laterite |
| Sunrise East | SDD029 | 12.12 | 12.8 | 0.68 | **1380** | 4790 | 140 | 0.0956 | 0.028 | Laterite |

*Sunrise East SDD029 Oxide zone assay results from 0-12.8m.*

The second diamond drill hole (SDD030) targeted a deeper magnetic anomaly and intersected a multi-phase mafic to felsic intrusive complex with numerous wide intervals of red rock alteration and narrow reddened monzonite and tonalite dykes with minor disseminated and blebby chalcopyrite (see images below). The more evolved characteristics of the rocks intersected in SDD030 indicate that the Sunrise East magnetic feature reflects a zoned Alaskan-style intrusion with the age of rocks likely to be Ordovician and similar to that of the nearby Tout Intrusive Complex which hosts the Sunrise Project. It is interpreted that the numerous reddened dykes, associated with copper mineralisation, are associated with a proximal porphyry phase located at depth or proximal to the drill hole. A strong silica-pyrite alteration zone was intersected at depth within SDD030 and is interpreted to be a deeper intersection of the same alteration zone intersected in SDD029. Initial surface mapping and surface sampling suggests that this alteration zone has a strike extent of over 1000m.

*Sunrise East drill core from SDD030 – highlighting pyrite and minor disseminated chalcopyrite associated with monzonite dyke.*


*Porphyry-style red rock alteration intersected in Sunrise East Drill Hole SDD030.*

## PHOENIX PLATINUM ML1770

Phase 2 of the planned diamond drilling program at the Phoenix Platinum Prospect comprised four diamond holes (totalling 1605 metres) targeting platinum mineralisation intersected in Phase 1. The four holes targeted potential down dip, up dip and along strike platinum mineralisation intersected in hole SDD022 drilled in late 2020. SDD022 returned a bonanza grade intersection of 0.6m @ 129g/t platinum at 255.9m downhole as well as a 0.3m interval of 9g/t platinum from 124.3-124.6m. The intersection also includes significant grades of palladium, rhodium, iridium, osmium and ruthenium (for further details see ASX announcement dated 3 May 2021).

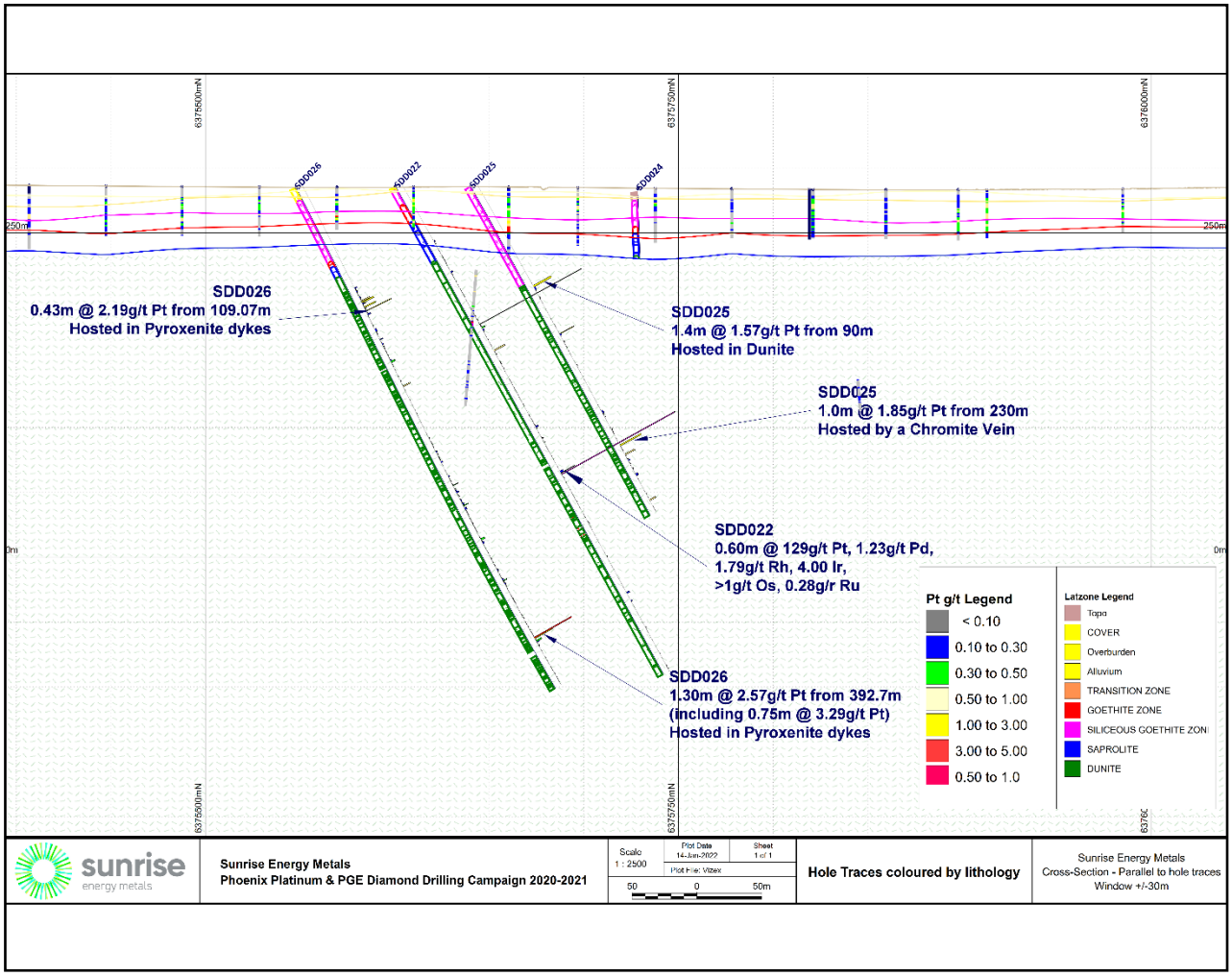


*Figure 3. Cross section showing SDD022 and Phase 2 diamond drill holes SDD026 and SDD025. Platinum results appear as a bar down the right side of the drill trace. Lithologies are dominated by dunite (green).*

SDD025 tested the up dip extension of platinum mineralisation intersected in SDD022, however platinum grades were lower compared to SDD022, with several other shallower and deeper narrow intervals. SDD026 tested the down dip extension of platinum mineralisation in SDD022 and intersected multiple intervals of platinum mineralisation including 109.07-109.5m @ 2.19g/t platinum and 392.7-393.45m @ 3.29g/t platinum. Several intervals of +1 g/t platinum were also

intersected. SDD027 and SDD028 intersected multiple intervals with platinum grades of 0.2-0.7g/t. Several wide intervals of low-grade platinum mineralisation associated with +1g/t intervals were intersected in SDD026, which suggests mineralisation may broaden to the south and at depth (see Figure 3).

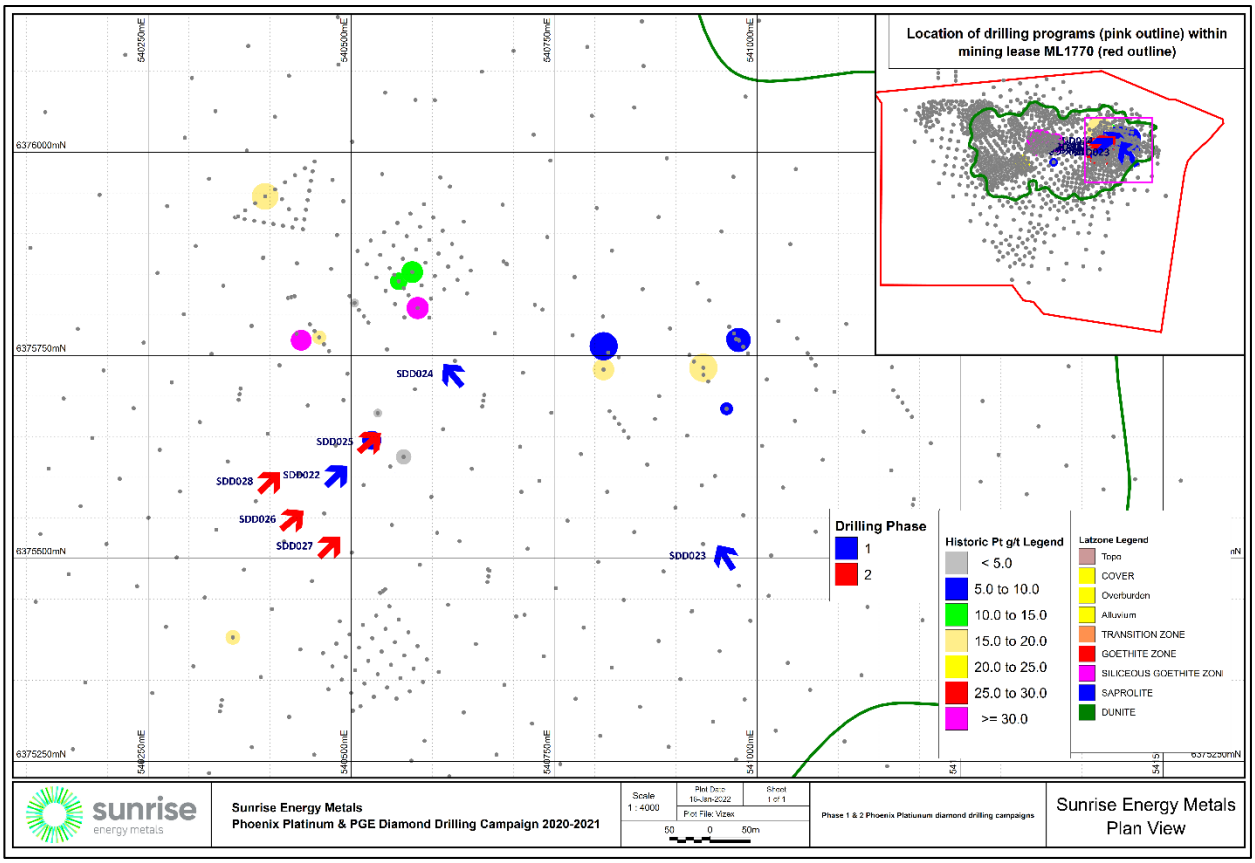


*Figure 4. Phase 1 and 2 diamond drilling at Phoenix located within the Sunrise resource – east pit, showing hole direction and significant platinum results in historic RC drilling. Historic RC drilling was designed to test the laterite resource at Sunrise with some holes returning significant platinum results.*

The Phase 2 diamond drilling program intersected many wide zones of coarse-grained pyroxenite dykes associated with strong serpentinization and platinum intercepts. Platinum was also found to be associated with chromite veins and shear zones. It is interpreted that platinum is remobilised into permeable zones within the dunite core and potentially along its contacts with surrounding pyroxenite. Research is continuing on the timing and controls to platinum mineralisation. Results so far strongly suggest that the platinum is magmatic in origin.

Intercepts greater than 1.0g/t platinum are tabled below and samples from these high-grade platinum intercepts have been sent to Intertek in Perth for specialist analysis for other platinum group elements (PGE) including ruthenium, rhodium, palladium, osmium and iridium in order to assess the full mineralisation potential of these intersections. Micro XRF analysis has been completed and suggests that platinum is coarse grained and amenable to gravity separation.

| Intercepts | | | | | | |
|---|---|---|---|---|---|---|
| **PROSPECT** | **Hole** | **From (m)** | **To (m)** | **Interval (m)** | **Pt ppm** | **Association** |
| Phoenix ML1770 | SDD025 | 90 | 91.4 | 1.4 | 1.57 | dunite |
| Phoenix ML1770 | SDD025 | 132.45 | 132.87 | 0.42 | 1.28 | dunite |
| Phoenix ML1770 | SDD025 | 230 | 231 | 1 | 1.85 | chromite vein |
| Phoenix ML1770 | SDD026 | 101.57 | 102.53 | 0.96 | 1.05 | pyroxenite dykes |
| Phoenix ML1770 | SDD026 | 105.65 | 106.42 | 0.77 | 1.02 | pyroxenite dykes |
| Phoenix ML1770 | SDD026 | 109.07 | 109.5 | 0.43 | **2.19** | pyroxenite dykes |
| Phoenix ML1770 | SDD026 | 342.4 | 342.7 | 0.3 | 1.35 | chromite vein |
| Phoenix ML1770 | SDD026 | 392.7 | 393.45 | 0.75 | **3.29** | pyroxenite dykes |
| Phoenix ML1770 | SDD026 | 393.45 | 394 | 0.55 | 1.58 | pyroxenite dykes |
| Phoenix ML1770 | SDD027 | 148.5 | 149.35 | 0.85 | 1.24 | pyroxenite dykes |

*Details of significant platinum intercepts from the Phase 2 Phoenix diamond drilling program.*

Sunrise Energy Metals has remodelled magnetic data and delineated several prospective magnetic dunite-pyroxenite contacts for drill testing and surface sampling campaigns. It is postulated that magnetite and chromite-bearing coarse grained pyroxenites located around the margins of the dunite core at Sunrise are an attractive exploration target for PGEs (see Figure 5).

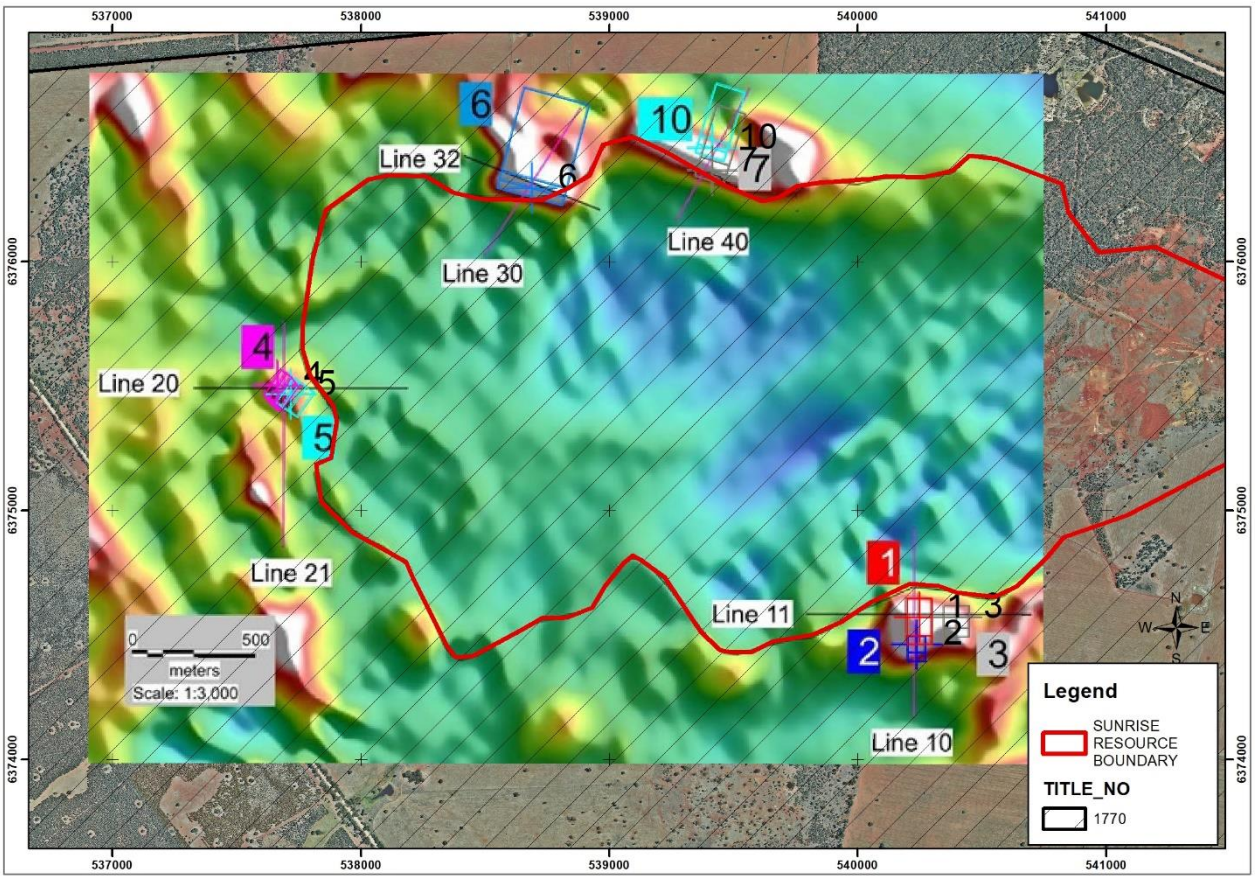


*Figure 5. Plan view of modelled dunite-pyroxenite contacts and PGE target areas. Magnetic targets associated with the contact are located around the dunite body which hosts the Sunrise laterite resource.*

This announcement is authorised for release to the market by the Directors of Sunrise Energy Metals.

## For more information, please contact:


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**About Sunrise Energy Metals Limited**

Sunrise Energy Metals Limited (ASX:SRL) is progressing its world-class Sunrise Battery Materials Complex in New South Wales. The Sunrise Project is one of the largest and most cobalt-rich nickel laterite deposits in the world and is development-ready, with all key permits and approvals in place. Sunrise is also one of the largest and highest-grade scandium deposits globally.

**Forward Looking Statements**

Certain statements in this news release may constitute "forward-looking statements or "forward- looking information" within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of the Company or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as "may", "would", "could", "will", "intend", "expect", "believe", "plan", "anticipate", "estimate", "scheduled", "forecast", "predict" and other similar terminology, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. These statements reflect the Company's current expectations regarding future events, performance and results, and speak only as of the date of this new release. Readers are cautioned not to place undue reliance on forward-looking information or statements.

Although the forward-looking statements contained in this news release are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this news release and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this news release. For more information about Sunrise Energy Metals please visit the Company's website www.sunriseem.com

**Competent Persons Statement**

The information in this announcement that relates to Exploration Results in this announcement is based on, and fairly represents, information and supporting documentation compiled by John Winterbottom BSc (Geology), a Competent Person, who is a Member of the Australian Institute of Geoscientists. Mr Winterbottom is a consultant engaged by the Company and has sufficient experience that is relevant to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. The Qualified Person has verified the data disclosed in this release, including sampling, analytical and test data underlying the information contained in this release. Mr Winterbottom consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

## APPENDIX A – JORC TABLE

# Section 1: Sampling Techniques and Data

**(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)**

| 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.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g 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.* | • Historic drilling on the Sunrise lease ML1770 has been exclusively focussed on the laterite and the weathered portion of the dunite and pyroxenite units and have been described in detail in the 2018 and 2020 DFS updates by Sunrise Energy Metals (previously named Clean TeQ Holdings Limited).<br>• 11 historic Ivanplats reverse circulation holes were drilled to varying depths below the laterite into the underlying dunite complex seeking the platinum source. No historic drilling was undertaken on the eastern units of EL4537.<br>• Sunrise Energy Metals has drilled 1,605m from four diamond holes during Phase 2 drilling at Phoenix Platinum ML1770. A total of 1,543m has been drilled so far at Sunrise East EL4573. Rotary mud drilling pre collars were completed for three of the diamond holes through the oxide zone at Phoenix. PQ3 diameter core (83.0mm) was drilled through the laterite in the fourth diamond drill hole at Phoenix and all diamond drill holes at Sunrise East to ensure maximum sample recovery before HQ casing of the hole and reduction to HQ diameter holes (63.5mm core diameter) into the fresh rock which was continued to end of hole depth. HQ core was ½ cored down the apex of the core stick using an automatic diamond saw. PQ core was cut in half and then cut in quarters before sampling. The right-hand half of the core looking downhole was sampled for test work. Sample intervals were nominally 1m lengths broken at geological boundaries with a minimum length of 0.3m and maximum of 1.5m. Each sample was crushed in its entirety to -6mm, spilt using a riffle splitter if the sample was greater than 3kg, ½ |

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| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | the split was then pulverised using an LM5 pulverising mill reducing the sample particle size to 75um before it was subsampled and placed in to 200g paper sachet. The pulp was tested for platinum, palladium and gold using a 50gram fire assay charge and also tested for multi-elements. |
| *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).* | • All diamond drill holes at Sunrise East one at Phoenix Platinum were drilled by Resolution Drilling based in Condobolin NSW. Three of the diamond drill holes at Phoenix Platinum were drilled by Durock drilling based in Dubbo NSW.<br>• The initial 3 diamond drill holes completed at Phoenix in Phase 2 were pre collared using rotary mud drilling down to the commencement of fresh rock. The final drill hole at Phoenix was diamond cored the entire length of the hole. All diamond drill holes at Sunrise East were drilled with PQ3 in the weathered zone. At Sunrise East. weathered zones towards the top of the hole was drilled PQ3 triple tube (83.1mm core diameter) to preserve the core integrity and maximise recovery. Once competent fresh rock was intersected the hole reduced to standard tube HQ diameter core (63.5mm core diameter).<br>• All core was orientated using a Boart Longyear Tru Core / Tru Shot. |
| *Drill sample recovery* | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | • Core was extracted from the core barrel through a wireline extraction and immediately placed into core trays. The core trays were then labelled with the hole number and with 'from' and 'to' depths. The drilling crew placed core blocks marked with downhole depths and core losses at the end of each 3m core run in the each of the diamond core trays.<br>• Rotary mud and PQ3 configuration was used through the laterite and highly weathered portion of the holes. Rotary mud was used for three of the Phoenix diamond drill holes due to difficult drilling conditions in the oxide zone. PQ3 was used for the final drill hole at Phoenix and all of the Sunrise East drill holes in an attempt to maximise core recovery.<br>• All core was measured, and metre marked downhole using a standard metric tape by Sunrise Energy Metals Geologists and technicians. Core block depths were checked against measured core lengths by the geologists for correctness. All depths were found to be correct and correlated with measured core lengths allowing for estimated core losses. Recovery was calculated as a percentage of the length of core measured versus the core run interval. All hole recoveries within the fresh rock were greater than 99% on average. Core recovery was excellent through the majority of intervals with Pt assays greater than 1ppm.<br>• No relationships have been established between grade and recoveries. |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| *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.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • 100% of the diamond drilled hole lengths were geologically logged including but not limited to; weathering, rock type, texture, alteration and presence of key minerals, along with geotechnical logs noting RQD's and structural descriptive logs. Significant structures were described, and measurements were made noting the alpha / beta angles from the bottom of the hole for veins, joints and faults/shears. Rotary mud drill chips were logged for oxide lithology only.<br>• Logging would be classified as qualitative.<br>• All PQ and HQ core was photographed both wet and dry with downhole depths displayed in each photograph.<br>• Logging and structural measurements were of sufficient level of detail as to form part of any future mineral resource estimate.<br>• Detailed downhole geophysical-electrical surveying was conducted by Groundsearch Pty Ltd on Phoenix diamond drill holes SDD025,026 and 027. Downhole surveying collected density, magnetic susceptibility, surveyed by north seeking gyro, imagery and other data useful in determining the orientation of structures. Due to ground conditions some sections of drill holes were not surveyed by Groundsearch. |
| *Sub-sampling techniques and sample preparation* | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *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.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • PQ and HQ core size was selected as it provides the largest practical sized and representative in situ primary sample for logging and testing purposes available to SEM.<br>• PQ core was cut into quarter core using the same cutting technique. All HQ diamond core was cut in half along the apex of the core ellipse using an automatic diamond saw. Rotary mud drill cuttings were not collected or sampled.<br>• The left-hand side of the core looking downhole, was sampled with the remainder left in the core tray in its correct position downhole.<br>• Sampling downhole intervals were nominally 1m lengths broken at geological boundaries with a minimum length 0.3m to ensure sufficient sample for subsequent test work, yielding an averaging sample weight of 3.4kg.<br>• Sampling yielded 1,514 samples from Phoenix for test work. Sample submission for Sunrise East is still in progress.<br>• Drill sample sizes are considered appropriate for the style of mineralisation being tested. |
| *Quality of assay data and* | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *For geophysical tools, spectrometers, handheld XRF* | • Blank samples and certified platinum OREAS standards OREAS681, 683, 684 , were inserted into each sample submission at a rate of 1:20. OREAS8, OREAS606, OREAS501D, OREAS197, OREAS198, OREAS199, OREAS45E, OREAS234, OREAS239, |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| *laboratory tests* | *instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*<br>• *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.* | OREAS460, OREAS464, OREAS70B and OREAS72b have been inserted at a rate of 1:20 with Sunrise East samples.<br>• Quarter PQ and half HQ core samples were despatched to Intertek Maddington WA and ALS Orange NSW for preparation.<br>• All samples from Phoenix were processed at Intertek's Maddington laboratory set up for fibrous material.<br>All samples from Sunrise East are non fibrous and sent to ALS Orange.<br>• Dry at <110 degrees (oven currently set at 90 degrees due to predominance of high sulphide samples received in Orange).<br>• Crushed at 2mm ALS (CRU-31) INTERTEK (SP15 and SP96), 4 of these samples (1 in 50) underwent crush QC screening checks to make sure that the sample was better than 70% passing -2mm. Asbestos preparation Intertek (APO2)<br>• If a sample was greater than 3kg it was rotary split ALS (SPL-22Y) during the same process to produce a 3kg sample for pulverising. The remainder of the sample was retained as a coarse crush reserve.<br>• The pulverising task was. Pulverising was performed using an LM5 pulverising mill ALS ( PUL-23a) INTERTEK (SP15 and SP96) with a capacity up to 3kg of raw sample. Pulverising was up to 85% passing 75 µm. QC pulverising checks by wet-screening were performed on 1 in 50 samples.<br>Fibrous:<br>• All potentially fibrous samples were submitted and processed through Intertek's Maddington laboratory specifically set up to handle and process fibrous material. Asbestos preparation Intertek (APO2)<br>• Samples were dried at <110 degrees<br>• Crushed to -6mm INTERTEK (SP15 and SP96) no QC performed on this crush task<br>• If the sample weight was greater than 3kg it was riffle split INTERTEK (SP 15 and SP6) to produce a 3kg sample for pulverising<br>• INTERTEK (SP15). An LM5 pulverising mill with a capacity of up to 3kg of raw sample was used to crush the sample to 85% passing 75µm. QC checks by wet-screening 1 in 50 samples was performed.<br>• Once pulverised samples were then further subsampled to produce a 200 or 400gram pulp packet. The remainder of the sample was retained as a pulp reserve.<br>• All samples from Phoenix Platinum were tested for Au, Pd and Pt at Intertek using fire assay method FA25/MS using a 50g charge. Selected intervals from Sunrise |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | East were tested by ALS for platinum, palladium and gold using a 50gram charge for fire assay and ICP detection (PGM-ICP24). Overrange samples were despatched to ALS Vancouver for further platinum test work using a 10gram fire assay charge and AAS finish (Pt-AA23).<br>• ALS Orange and Intertek Maddington also tested each for multielement ALS (ME-MS61) INTERTEK (4A/MS48) with a four acid digest followed by ICP-MS finish and included elements: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr.<br>• Oxide samples from Sunrise East were submitted to ALS Orange and tested by method ME_XRF12n (Determination of major and minor elements in Nickel Laterite ores by Fusion XRF. LOI is included by furnace or TGA when this method is selected. Final results are normalized) including the following in results Al2O3, CaO, Co, Cr2O3, Cu, Fe2O3, K20, MgO, MnO, Na2O3, Ni, P2O5, Pb, Sc, SiO2, TiO2, Zn, Total, Loss on Ignition.<br>• To date, all 1,514 assay results have been returned from the 4 diamond holes drilled at Phoenix. A total of 39 assay results have been received from the oxide zone in the first diamond drill hole completed at Sunrise East. A total of QAQC entailed reviewing laboratory grind checks, Sunrise Energy Metals inserted control (Blanks and Standard) as well as the laboratories own internal QAQC checks for each batch. Controls were examined from Pt, Pd and Au against certified values and recommended elemental ranges for each of the standards.<br>• All control samples returned values within acceptable ranges except sample where all three elements returned values below acceptable ranges.<br>• The QAQC test work suggests that no significant bias or precision issues exist in the data and it is fit for public reporting. |
| *i* | • *The verification of significant intersections by either independent or alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | • Significant intercepts are cross-checked against the logged intervals and wet and dry core photographs.<br>• No pulp samples have been re-split for umpire test work.<br>• Geological logs were input directly into excel templates for uploaded directly into Micromine' Geobank SQL database.<br>• Assay results were received from the laboratory as both PDF and Comma Separated Files. Results were uploaded by Sunrise Energy Metals directly into their Geobank SQL database a Micromine Pty Ltd product.<br>• No adjustments were made to the primary sample data provided by the testing |

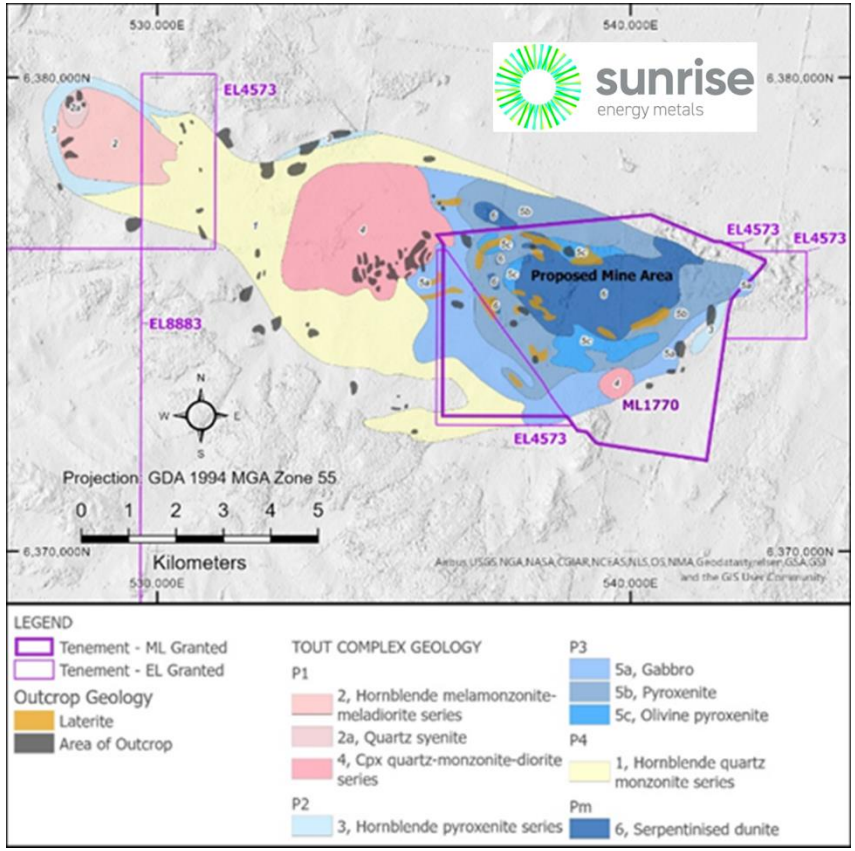
| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | laboratory. |
| *Location of data points* | • *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • Collars were set-out by hand held GPS +/- 2m. Collar RL used the Lidar survey RL +/- 0.2m<br>• Collar locations were recorded in Datum: GDA94 with Projection: MGA Zone 55 and input into the Geobank database.<br>• Topographic survey control is adequate, based on a Lidar survey flown in 2017 by AAM geospatial services.<br>• The rig was aligned to the hole design using a north seeking gyroscope upon hole setup.<br>• At Phoenix the downhole survey was taken using the north seeking gyroscope (Axis Mining Technology/Champ Gyro (calibrated 14 Oct 2020)) (+/- 0.02 degrees), taking readings at 15m intervals downhole as the hole was extended with the initial reading assumed to be the same as the collar location. Sunrise East drill holes are surveyed using a Boart Longyear Trushot downhole camera at 30m intervals. |
| *Data spacing and distribution* | • *Data spacing for reporting of Exploration Results.*<br>• *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.*<br>• *Whether sample compositing has been applied.* | • The four diamond holes at Phoenix focused on platinum and PGE's within the fresh rock beneath the Sunrise laterite deposit. The holes were attempting to identify major Pt and PGE bearing structures and are too broadly spaced to provide any degree of certainty regarding geological and grade continuity and by themselves are not suitable for Mineral Resource estimates or classification.<br>• The drill holes at Sunrise East aimed to test geophysical anomalies associated with a moderate sized magnetic anomaly.<br>• No compositing has been applied to the reported results. |
| *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.*<br>• *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.* | • Holes were drilled at approximately 60 degrees dip and orientated tangentially from the targeted sub vertical structures within the dunite complex at Phoenix. At Sunrise East drill holes were orientated at variable dips to adequately test geophysical anomalies. |
| *Sample security* | • *The measures taken to ensure sample security.* | • For Phoenix drilling samples were placed in labelled calico bags and were then placed in large plastic green bags in groups of 5. Green bags were labelled with the sample range they contained and sealed by the supervising geologist. At Sunrise East cut core samples were placed in calico bags that were then air dried and transferred into 1 tonne sealable plastic bins that are security sealed for transport to the laboratory. |

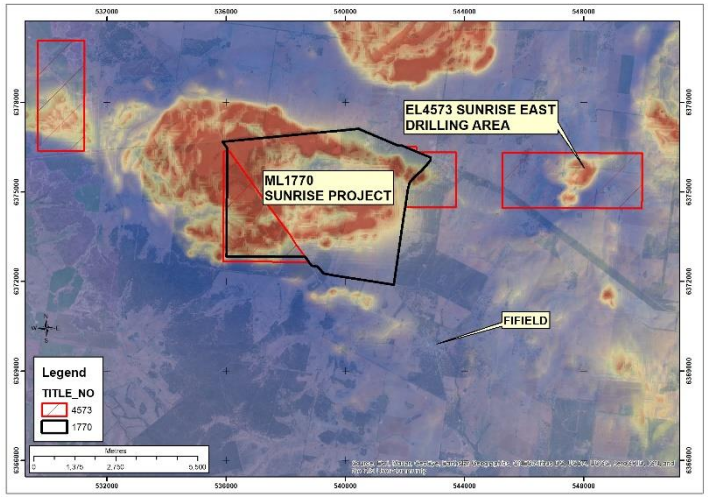
| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | • Samples were delivered to ALS Orange or Intertek Maddington using secure transport by Parkes Courier Services.<br>• ALS Orange and Intertek Maddington provided a sample receipt manifest that was then correlated with the submission form provided to the laboratory. |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | • No external reviews of sampling techniques or data has been performed. |

## 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.*<br>• *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 Sunrise Ni-Co deposit Mineral Resource/Reserve area is covered entirely by Mining Lease ML 1770 (2,195.0 ha). This Mining Lease is held 100% by Sunrise Energy Metals Pty Holdings Limited. It was granted on 16 February 2018, has an initial validity period of 21 years and may be extended by future applications for renewal.<br>• The boundaries of Mining Lease Application MLA 113 were approved by NSW department of Planning and Environments in February 2018 and now forms part of Sunrise mining leases.<br>• Mining Leases ML 1769 and ML 1770 were granted on 15 and 16 February 2018 and cover the main project area (ML 1770) and the Westella limestone deposit (ML 1669)<br>• Mining Lease ML 1770 includes all the area previously covered by Mining Lease Applications MLA 132, MLA 139, MLA 140, MLA 141, as well as MLA 113.<br>• EL4573 was originally granted to Black Range Minerals on the 17th of August 1993. Since grant date EL4573 has been renewed several times under Black Range Minerals, Clean Teq Holdings and SRL OPS, a fully owned subsidiary of Sunrise Energy Metals Pty Ltd.EL4573 is in the name of SRL OPS Pty Ltd and was last renewed on 16 October 2018 and now consists of 12 units and permits exploration for Group 1 minerals<br>• Conditions that apply to the licences are normal conditions that would apply to any similar tenements in New South Wales.<br>• The Sunrise Project was granted Development Consent under the NSW Environmental Protection and Assessment Act in May 2001. A notice of |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | modification to include scandium oxide as a product, in addition to nickel and cobalt sulphates, was approved on 12 May 2017.<br>• The exploration program was drilled within the ML1770 lease boundaries but was focused on the platinum and PGE potential beneath the Ni-Co laterite deposit for which the ML was originally granted.<br>• At Sunrise East EL4573 drilling focussed on a magnetic anomaly.<br>• Sunrise Energy Metals also holds title to a number of freehold farming properties in and around the area of the Sunrise deposit.<br>• There are no impediments to obtaining a licence to operate. |
| *Exploration done by other parties* | • *Acknowledgment and appraisal of exploration by other parties.* | • The deposit has been subjected to multiple drilling programmes by 5 different owners since 1988.<br>• 1998 Helix Resources NL aeromagnetic surveys flown over the then Syerston project area (now Sunrise project area).<br>• 11 historic reverse circulation holes for 1,283 samples were drilled by Ivanplats into fresh dunite below the laterite deposit in 2006 with some notable platinum intercepts:<br>○ SRC1253 - 1m @ 6.48 g/t Pt from 127m<br>○ SRC1257 - 4m @ 7.35 g/t Pt from 119m<br>○ SRC1260 - 2m @ 0.91 g/t Pt from 180m.<br>○ SRC1261 - 1m @ 4.16 g/t Pt from 137m<br>• All other drilling within the ML was targeting shallow alluvium Pt, Sc or lateritic Ni-Co using combinations of RAB, AC, RC and DD drilling.<br>• Sunrise Energy Metals have generated a significant Ni-Co laterite resource over the ML and generated a DFS in 2017 which was further updated in 2020. |
| *Geology* | • *Deposit type, geological setting and style of mineralisation.* | • Sunrise is an iron-rich 'oxide type' nickel laterite deposit with higher than normal levels of associated Co and local elevated Pt and Sc values. It has developed over an ultramafic intrusive complex.<br>• The laterite profile is best developed over a Dunite core and thins over peripheral Pyroxenites.<br>• The laterite profile is partly overlain by transported alluvium.<br>• The igneous rocks within the ML form part of the Tout complex, an Alaskan-style differentiated ultramafic suite of rocks. Dunite forms the core of the complex and is thought to host most of the Pt mineralisation as well as the overlying laterite Ni mineral resource. The dunite ultramafic core is surrounded, concentrically, by |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | pyroxenite, monzonite, gabbro and monzodiorite.<br>• Limited knowledge is known about the rock types within the eastern units of EL4573 due to limited prior exploration work. Alluvial cover sequences were thought to be widespread and relatively thick over the eastern units of EL4573. The regionally extensive Looney Intrusive Complex and Gobonderry Granite occurs just to the east of EL4573. These intrusive rocks are interpreted to be of Ordovician to Devonian age.<br>  <br><br>• The dunite is a largely serpentinised cumulate Olivine rich rock now with abundant Lizardite, Brucite with Magnetite and Chromite occurring as disseminated grains |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | and veins.<br>• The dunite has been fractured by a number of steeply dipping conjugate faults trending northeast and north west approximately.<br>• The precise origins of the mineralisation are yet to be determined however the platinum and other PGE's are coincident with chromite and ferric spinels. Early micro XRF work suggests a magmatic origin. The mineralisation appears different to the Owendale complex, immediately north of the Sunrise ML, which hosts PGE's in pyroxene pegmatoids (P units). Further microXRF work may help better understand genesis and PGE deportment within the Chromites and host rocks.<br>  <br>• The Sunrise East drilling area is located wholly within EL4573 and targets a magnetic anomaly.<br>• Southern Geoscience Consultants remodelled airborne magnetic data. Inversion modelling was completed on the remodelled magnetic data that resulted in a number of drill targets generated. The drill targets include zones of possible magnetic destruction and hydrothermal alteration as well as magnetic highs and structures within a potential intrusive complex.<br>• Knowledge of the area previously was limited. |
| *Drill hole Information* | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*<br>○ *easting and northing of the drill hole collar* | • All diamond holes drilled to date from Phoenix have returned assays from the laboratory. Assay results from Sunrise East have only been received from the oxide zone in SDD029. Downhole intercepts above 1g/t are tabulated below. All intercepts are uncut: |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>○ *dip and azimuth of the hole*<br>○ *down hole length and interception depth*<br>○ *hole length.*<br>• *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.* | |

| Dataset | Hole | Prospect | Grid Name | Collar Grid East | Collar Grid North | Collar Grid RL | Collar Mag Az | Collar Dip | Depth |
|---|---|---|---|---|---|---|---|---|---|
| Sunrise | SDD022 | ML1770 | MGA94_55 | 540484 | 6375603 | 285.75 | 34.8 | -60.8 | 429 |
| Sunrise | SDD023 | ML1770 | MGA94_55 | 540960 | 6375504 | 288.2812 | 316.0 | -55.2 | 393.3 |
| Sunrise | SDD024 | ML1770 | MGA94_55 | 540624 | 6375728 | 284.0736 | 309.2 | -60.2 | 529.8 |
| Sunrise | SDD025 | ML1770 | MGA94_55 | 540525 | 6375644 | 285.671 | 38.8 | -60.7 | 288.9 |
| Sunrise | SDD026 | ML1770 | MGA94_55 | 540476 | 6375516 | 285.524 | 34.3 | -62.3 | 445.7 |
| Sunrise | SDD027 | ML1770 | MGA94_55 | 540430 | 6375549 | 284.891 | 38.8 | -55.7 | 425.5 |
| Sunrise | SDD028 | ML1770 | MGA94_55 | 540402 | 6375595 | 284.033 | 37.0 | -58.9 | 444.5 |
| Sunrise East | SDD029 | EL4573 | MGA94_55 | 547190 | 6375167 | | 117.2 | -65.0 | 642 |
| Sunrise East | SDD030 | EL4573 | MGA94_55 | 547689 | 6376054 | | 136.2 | -63.0 | 901 |
| Sunrise East | SDD031 | EL4573 | MGA94_55 | 547398 | 6375539 | | 132.0 | -57.0 | in progress |
| Sunrise East | SDD032 | EL4573 | MGA94_55 | 547601 | 6375118 | | 142.2 | -61.0 | planned |

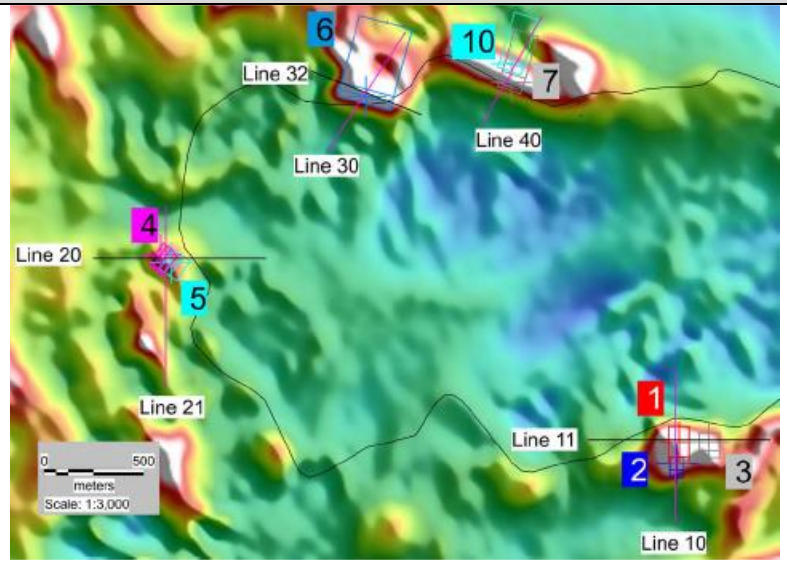
- All samples from Phoenix Platinum were tested for Au, Pd and Pt at Intertek using fire assay method FA25/MS using a 50g charge. Selected intervals from Sunrise East were tested by ALS for platinum, palladium and gold using a 50gram charge for fire assay and ICP detection (PGM-ICP24). Overrange samples were despatched to ALS Vancouver for further platinum test work using a 10gram fire assay charge and AAS finish (Pt-AA23).

| Intercepts | | | | | | |
|---|---|---|---|---|---|---|
| **PROSPECT** | **Hole** | **From (m)** | **To (m)** | **Interval (m)** | **Pt ppm** | **Association** |
| Phoenix ML1770 | SDD025 | 90 | 91.4 | 1.4 | 1.57 | dunite |
| Phoenix ML1770 | SDD025 | 132.45 | 132.87 | 0.42 | 1.28 | dunite |
| Phoenix ML1770 | SDD025 | 230 | 231 | 1 | 1.85 | chromite vein |
| Phoenix ML1770 | SDD026 | 101.57 | 102.53 | 0.96 | 1.05 | Pyroxenite dykes |
| Phoenix ML1770 | SDD026 | 105.65 | 106.42 | 0.77 | 1.02 | Pyroxenite dykes |
| Phoenix ML1770 | SDD026 | 109.07 | 109.5 | 0.43 | **2.19** | Pyroxenite dykes |
| Phoenix ML1770 | SDD026 | 342.4 | 342.7 | 0.3 | 1.35 | chromite vein |
| Phoenix ML1770 | SDD026 | 392.7 | 393.45 | 0.75 | **3.29** | Pyroxenite dykes |
| Phoenix ML1770 | SDD026 | 393.45 | 394 | 0.55 | 1.58 | Pyroxenite dykes |
| Phoenix ML1770 | SDD027 | 148.5 | 149.35 | 0.85 | 1.24 | Pyroxenite dykes |

<table>
<tr><th>Criteria</th><th>JORC Code Explanation</th><th>Commentary</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><th colspan="11">Intercepts</th></tr>
<tr><th>PROSPECT</th><th>Hole</th><th>From (m)</th><th>To (m)</th><th>Interval (m)</th><th>Co ppm</th><th>Ni ppm</th><th>Sc ppm</th><th>Pt ppm</th><th>Pd ppm</th><th>Association</th></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>0</td><td>1.35</td><td>1.35</td><td>200</td><td>930</td><td>80</td><td>0.0545</td><td>0.01</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>1.35</td><td>1.8</td><td>0.45</td><td>390</td><td>1080</td><td>60</td><td>0.0716</td><td>0.01</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>1.8</td><td>2.32</td><td>0.52</td><td>610</td><td>1590</td><td>80</td><td>0.0786</td><td>0.015</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>2.32</td><td>3</td><td>0.68</td><td>1100</td><td>1580</td><td>80</td><td>0.0829</td><td>0.015</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>3</td><td>4.5</td><td>1.5</td><td>520</td><td>870</td><td>90</td><td>0.0898</td><td>0.022</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>4.5</td><td>5</td><td>0.5</td><td>300</td><td>530</td><td>140</td><td>0.0571</td><td>0.029</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>5</td><td>6.1</td><td>1.1</td><td>230</td><td>330</td><td>150</td><td>0.0542</td><td>0.026</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>6.1</td><td>7</td><td>0.9</td><td>420</td><td>460</td><td>330</td><td>0.0483</td><td>0.02</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>7</td><td>7.7</td><td>0.7</td><td>740</td><td>750</td><td>440</td><td>0.0685</td><td>0.026</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>7.7</td><td>8.25</td><td>0.55</td><td>800</td><td>1890</td><td>340</td><td>0.0637</td><td>0.021</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>8.25</td><td>9.05</td><td>0.8</td><td>1000</td><td>2800</td><td>170</td><td>0.0777</td><td>0.017</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>9.05</td><td>9.9</td><td>0.85</td><td>1100</td><td>3110</td><td>80</td><td>0.121</td><td>0.02</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>9.9</td><td>10.72</td><td>0.82</td><td>1120</td><td>3220</td><td>90</td><td>0.121</td><td>0.025</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>10.72</td><td>11.4</td><td>0.68</td><td>1430</td><td>3560</td><td>110</td><td>0.0873</td><td>0.023</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>11.4</td><td>12.12</td><td>0.72</td><td>1350</td><td>4830</td><td>90</td><td>0.13</td><td>0.021</td><td>Laterite</td></tr>
<tr><td>Sunrise East</td><td>SDD029</td><td>12.12</td><td>12.8</td><td>0.68</td><td>1380</td><td>4790</td><td>140</td><td>0.0956</td><td>0.028</td><td>Laterite</td></tr>
</table>
</td></tr>
<tr><td>Data aggregation methods</td><td>• 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.<br>• 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.<br>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</td><td>• Drill downhole intercepts above 1g/t and grades are uncut. Intercepts have not been converted to true widths due to uncertainty around mineralisation orientation. Sunrise EM considers that the downhole intercepts approximate the true width.<br>• Not dilution assumptions have been used.<br>• Metal equivalent values are not reported.</td></tr>
<tr><td>Relationship between mineralisation widths and intercept lengths</td><td>• These relationships are particularly important in the reporting of Exploration Results.<br>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.<br>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’).</td><td>PHOENIX PLATINUM DRILL HOLES<br>• Hole SDD022 was targeting a NW (320 azimuth) steeply dipping trending structure and the hole has been designed to intercept this structural trend as tangentially as possible.<br>• Holes SDD023 and SDD024 were targeting NE (050 azimuth) steeply dipping trending structures and these holes have also been designed to intercept the structural trend as tangentially as possible.<br>• Hole SDD026 was designed to test possible down dip extensions of Pt intercepts in SDD022.<br>• SDD025 was designed to test possible up dip extensions of Pt intercepts in SDD022.</td></tr>
</table>

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | • SDD027 AND 28 were designed to test potential along strike extensions of Pt intercepts in SDD022.<br>• Precise orientation of the structures was not possible due to the high variability of the Cr veins and poor ground conditions preventing accurate core orientation measurements or orientation measurement continuity.<br>SUNRISE EAST DRILL HOLES<br>• SDD029, 30, 31 and 32 were designed to test zones of magnetic destruction, magnetic highs and interpreted structures associated with a magnetic high interpreted to be a possible porphyry or intrusive stock-like body. |
| *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.* | • Refer to figures in the body of text. |
| *Balanced reporting* | • *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | • All significant intercepts have been reported.<br>• All results are expressed as downhole intervals.<br>• All results are expressed on a dry basis.<br>• All samples from Phoenix Platinum were tested for Au, Pd and Pt at Intertek using fire assay method FA25/MS using a 50g charge. Selected intervals from Sunrise East were tested by ALS for platinum, palladium and gold using a 50gram charge for fire assay and ICP detection (PGM-ICP24). Overrange samples were despatched to ALS Vancouver for further platinum test work using a 10gram fire assay charge and AAS finish (Pt-AA23). |
| *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.* | • In 2018 AND 2020 SEM, the Clean Holdings Pty Ltd, instructed Southern Geoscience Consultants Pty Ltd (SGC) Perth Western Australia to re-process and re-interpret a historic 1998 Helix Resources NL aeromagnetic surveys flown over the then Syerston project area (now Sunrise project area) as well as Sunrise East EL4573. The survey details are as follows:<br>○ Survey Name Syerston Project<br>○ Contractor UTS Geophysics<br>○ Client Uranium Australia NL<br>○ Survey Year 1998<br>○ Status Confidential<br>○ Job Number A280 |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | ○ Methods MAG DEM<br>○ Flight Line Spacing 50 metres<br>○ Flight Line Direction 090-270 degrees<br>○ Mean Terrain Clearance 25 metres<br>• Data was inverted using the UBC code to produce 3D models of magnetic susceptibility.<br>• SGC produced as 1:10,000 scale interpretation and structural framework focussed on providing a magnetic zonation map of the dunite for future PGE exploration within the intrusion bedrock.<br>• SGC modelled magnetic data in 2021 to define pyroxenite-dunite contacts. AMAG data is from the open file survey Syerston (NSW), acquired in July 1998 by UTS Geophysics. This was a MAG-RAD survey, with east-west (090° - 270°) lines at 50 m separation and a mean terrain clearance of 25 m. The TMI data was gridded, followed by further processing to derive RTP, TMI-1VD (first vertical derivate) and AS (analytic signal) grids. The latter two were added into the database to aid in modelling of anomalies. New transect lines were created over the modelled anomalies to better constrain the existing models. In modelling there is a known range of ambiguity with apparent robust fits given various parameters, especially between thickness and susceptibility. Several of the anomalies needed two or more bodies to better match the observations across transect lines. The multiple short-wavelength anomalies in the TMI1VD and AS indicate there are multiple sources contributing to the magnetic response. |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | |  <br>• Similar scale interpretation was completed for Sunrise East focussing on zones of magnetic variability within a likely intrusive complex.<br>• Southern Geoscience later reviewed and modelled ground magnetic data<br>• The magnetic interpretation map provided useful information on potential structural trends that help guide exploration drilling designs.<br>• Bulk density test work was completed by the use of downhole geophysical-electrical surveying using Groundsearch Pty Ltd.<br>• Minor chrysotile veins and veinlets were observed in the core and samples containing chrysotile veining were prepared along with all samples at Intertek Maddington laboratory Perth for all Phoenix drill samples. Chrysotile minerals are common in ultramafic settings. |
| *Further work* | • *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • 12 samples have been selected through Pt mineralised intervals for further exploratory microXRF work to determine the nature of the Pt and PGE distribution and association within the host rock and chromite veins. An evaluation has been undertaken to detect the presence of Platinum Group Minerals (PGMs) within the drill core samples provided by Sunrise Energy Metals. This study utilises micro-XRF technology that rapidly scans drill core at a resolution to detect PGM grains <100 um and provide contextual geological information on the PGM deportment. Once detected, PGM grains are |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | | rescanned at higher resolutions to confirm deportment, provide PGE association and an approximation of grain size.<br>• A total of 12 samples were scanned of which, PGM's were detected in 5 samples. Within the 5 samples that PGM's were detected, 11 grains were identified all containing Pt associated with Ir and Ir/Os. All PGMs are associated with chromite typically within chromite veins. Mean PGM grain size is 73 x 86 um (0.073 x 0.086 mm)<br>• A 3D seismic survey over the Sunrise dunite is planned to aid in resolving the extent and orientation of interpreted faults from aeromagnetic interpretations and allow more targeted drilling programs in the future.<br>• Additional diamond drilling to test targets highlighted through the 3D seismic survey work.<br>• An 53 hole RC drilling program is planned to test the extent of laterite developed over the western half of the newly discovered intrusive complex. |

## Section 3 Estimation and Reporting of Mineral Resources

**(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)**

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| *Database integrity* | • *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.*<br>• *Data validation procedures used.* | • All data was entered into excel templates and checked by Sunrise Energy Metals Exploration Geologists.<br>• Excel templates were loaded directly into Geobank using dedicated load protocols.<br>• Outputs from Geobank were further checked by Sunrise EM geologists for accuracy both spatially and using MicromineTM software database validation tools. |
| *Site visits* | • *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>• *If no site visits have been undertaken indicate why this is the case.* | • Sunrise EM competent persons have visited the site numerous times prior to the drilling campaign and again in 13-16 April 2021 after COVID-19 travel restrictions had eased. Drill sites, diamond core and core storage were reviewed on the most recent site visit. Sunrise EM has a dedicated NSW Exploration Manager and team managing all exploration work. |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| *Geological interpretation* | • *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*<br>• *Nature of the data used and of any assumptions made.*<br>• *The effect, if any, of alternative interpretations on Mineral Resource estimation.*<br>• *The use of geology in guiding and controlling Mineral Resource estimation.*<br>• *The factors affecting continuity both of grade and geology.* | • Insufficient data has been gathered to date to provide a robust geological interpretation of the deposit below the lateritic zone.<br>• Work at Sunrise East is preliminary, however the first two diamond drill holes have intersected lithologies consistent with belonging to an Alaskan-style intrusive complex. |
| *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.* | • A mineral resource of the Pt within the dunite host has not been estimated. Therefore, this section is not applicable. |
| *Estimation and modelling techniques* | • *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*<br>• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*<br>• *The assumptions made regarding recovery of by-products.* | • A mineral resource of the Pt within the dunite host has not been estimated. Therefore, this section is not applicable. |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).*<br>• *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*<br>• *Any assumptions behind modelling of selective mining units.*<br>• *Any assumptions about correlation between variables.*<br>• *Description of how the geological interpretation was used to control the resource estimates.*<br>• *Discussion of basis for using or not using grade cutting or capping.*<br>• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.* | |
| *Moisture* | • *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.* | • No moisture determination on the diamond core were made |
| *Cut-off parameters* | • *The basis of the adopted cut-off grade(s) or quality parameters applied.* | • A mineral resource of the Pt within the dunite host has not been estimated. Therefore, this section is not applicable. |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| *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 mineral resource of the Pt within the dunite host has not been estimated. Therefore, this section is not applicable. |
| *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.* | • No metallurgical test work has been undertaken at this stage within the fresh dunite rock.<br>• Early microXRF analysis of the Pt suggest it is closely associated with disseminated chromite and chromite veins with Pt and PGE's forming interstitially to the chromite grains.<br>• Pt grains examined ranged in size from 100-400um in diameter.<br>• No sulphides appeared to be related to the Pt and PGE's in the sample examined. |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| *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 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.* | • No environmental test work has been performed on the diamond core at this stage within the fresh dunite rock. |
| *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.*<br>• *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.*<br>• *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.* | • During Phase 1 drilling, bulk density test work was carried out on 1194, 15-30cm billets taken every metre downhole for all diamond holes drilled to date. The average bulk density of the dunite was determined to be 2.58. This is low for a typical olivine rich ultramafic, thought to be due to the pervasive serpentinization alteration. During Phase 2 drilling at Phoenix, rock density data was collected by downhole electrical-geophysical methods. |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| *Classification* | • *The basis for the classification of the Mineral Resources into varying confidence categories.*<br>• *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).*<br>• *Whether the result appropriately reflects the Competent Person's view of the deposit.* | • A mineral resource of the Pt within the dunite host has not been estimated. Therefore, this section is not applicable. |
| *Audits or reviews* | • *The results of any audits or reviews of Mineral Resource estimates.* | • A mineral resource of the Pt within the dunite host has not been estimated. Therefore, this section is not applicable. |
| *Discussion of relative accuracy/ confidence* | • *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*<br>• *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* | • A mineral resource of the Pt within the dunite host has not been estimated. Therefore, this section is not applicable. |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | *evaluation. Documentation should include assumptions made and the procedures used.*<br>• *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | |

## Section 4 Estimation and Reporting of Ore Reserves

**A mineral resource of the Pt within the dunite host has not been estimated. Therefore, this section is not applicable.**

**(Criteria listed in section 1, and where relevant in section 2 and 3, also apply to this section.)**

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| *Mineral Resource estimate for conversion to Ore Reserves* | • *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.*<br>• *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.* | |
| *Site visits* | • *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*<br>• *If no site visits have been undertaken indicate why this is the case.* | |
| *Study status* | • *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.*<br>• *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been* | |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | *carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.* | |
| *Cut-off parameters* | • *The basis of the cut-off grade(s) or quality parameters applied.* | |
| *Mining factors or assumptions* | • *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).*<br>• *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.*<br>• *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.*<br>• *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).*<br>• *The mining dilution factors used.*<br>• *The mining recovery factors used.*<br>• *Any minimum mining widths used.*<br>• *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.*<br>• *The infrastructure requirements of the selected mining methods.* | |
| *Metallurgical factors or assumptions* | • *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.*<br>• *Whether the metallurgical process is well-tested technology or novel in nature.*<br>• *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.*<br>• *Any assumptions or allowances made for deleterious elements.*<br>• *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.*<br>• *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?* | |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| *Environmental* | • *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.* | |
| *Infrastructure* | • *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.* | |
| *Costs* | • *The derivation of, or assumptions made, regarding projected capital costs in the study.*<br>• *The methodology used to estimate operating costs.*<br>• *Allowances made for the content of deleterious elements.*<br>• *The source of exchange rates used in the study.*<br>• *Derivation of transportation charges.*<br>• *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.*<br>• *The allowances made for royalties payable, both Government and private.* | |
| *Revenue factors* | • *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.*<br>• *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.* | |
| *Market assessment* | • *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.*<br>• *A customer and competitor analysis along with the identification of likely market windows for the product.*<br>• *Price and volume forecasts and the basis for these forecasts.*<br>• *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.* | |
| *Economic* | • *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.*<br>• *NPV ranges and sensitivity to variations in the significant* | |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | *assumptions and inputs.* | |
| *Social* | • *The status of agreements with key stakeholders and matters leading to social licence to operate.* | |
| *Other* | • *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:*<br>• *Any identified material naturally occurring risks.*<br>• *The status of material legal agreements and marketing arrangements.*<br>• *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.* | |
| *Classification* | • The basis for the classification of the Ore Reserves into varying confidence categories.<br>• Whether the result appropriately reflects the Competent Person's view of the deposit.<br>• The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any). | |
| *Audits or reviews* | • The results of any audits or reviews of Ore Reserve estimates. | |
| *Discussion of relative accuracy/ confidence* | • *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.*<br>• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.*<br>• *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for* | |

| Criteria | JORC Code Explanation | Commentary |
|---|---|---|
| | *which there are remaining areas of uncertainty at the current study stage.*<br>• *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.* | |