

5 February 2025

## Update of Syerston Scandium Project Mineral Resource

### Highlights:

- **The updated Mineral Resource Estimate confirms a global scandium Resource comprising 60.3Mt at 390ppm Sc (c. 23,500 tonnes of contained scandium (Sc) at a 300ppm Sc cut-off grade)**
- **Opportunity to expand the already significant high-grade zone (at a 600ppm Sc cut-off grade) with a step-out drill campaign to commence in early 2Q CY25 to target untested areas on the boundary of the intrusive**
- **Work continues on product development initiatives with US and Asian partners in both the advanced alloy and semiconductor sectors**
- **Encouraging expressions of interest received for offtake discussions, the results of which will inform the design scope for an updated Syerston Scandium Project Feasibility Study**

**MELBOURNE, Australia** – Sunrise Energy Metals Limited (**Sunrise Energy Metals** or **Company**) (ASX:SRL and OTC:SREMF) is pleased to announce an update to the Mineral Resource Estimate (**MRE**) for the Company's wholly-owned standalone Syerston Scandium Project at Fifield, New South Wales (NSW).

Sunrise Energy Metals CEO, Sam Riggall, commented: *"In mid-2024, we decided to revisit the option of building a small, integrated scandium mine and processing facility at our NSW mine site. Steady demand growth over the past decade, including the emerging importance of scandium in new 5G/6G semiconductor technologies, was the driver for that decision.*

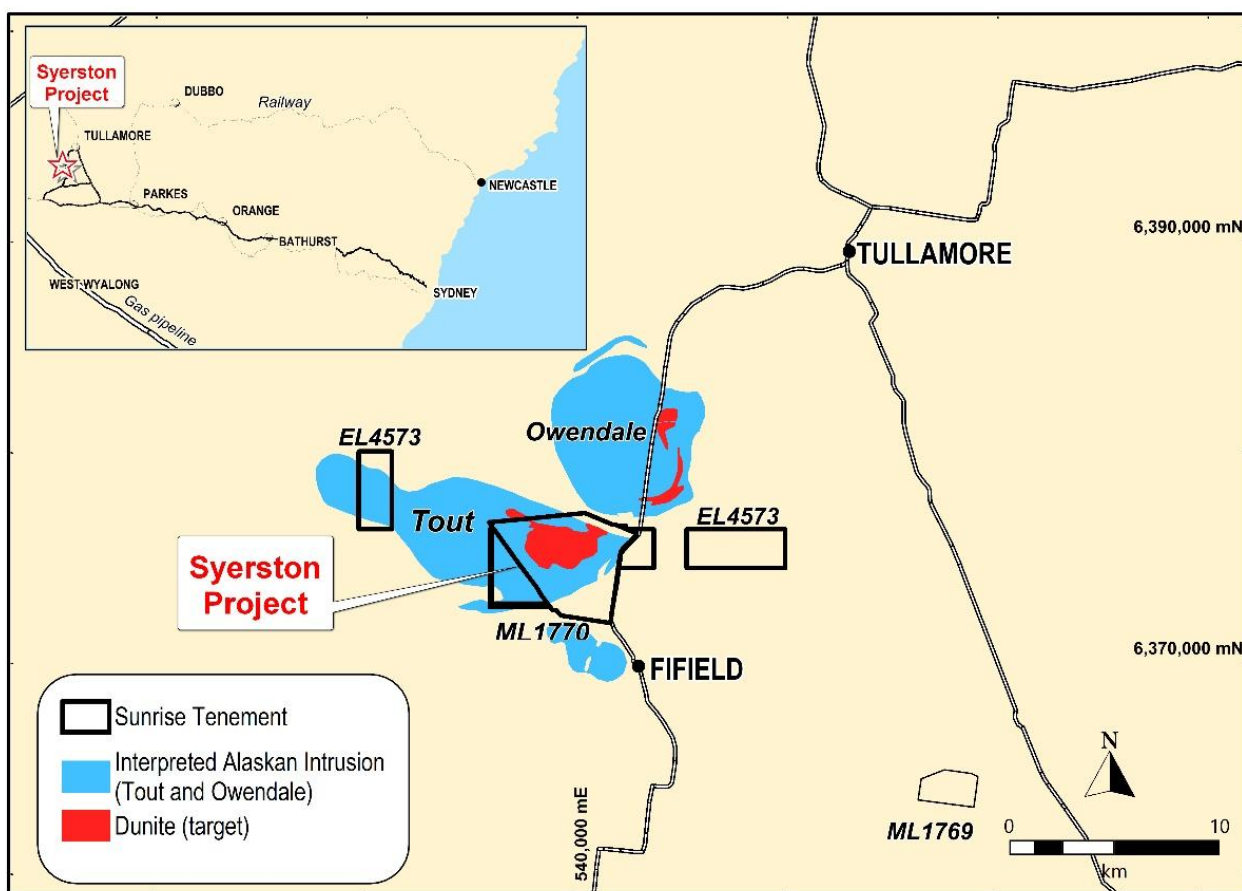
*The updated Syerston MRE highlights the scale and quality of our scandium assets, with enough grade and tonnage to support decades of future supply. It also presents a timely solution for western industry, which remains 100% dependent on Chinese scandium supply for the production of state-of-the-art defence and communication equipment.*

“Engagement with scandium end-users has been positive, as has our work with development partners, with formal expressions of interest for supply received. Our focus now turns to offtake discussions, which will inform the Project’s development scope.”

### Mineral Resource Estimate

The MRE has been completed by Mining One Pty Ltd<sup>1</sup> and confirms the presence of high-grade scandium (Sc) mineralisation at shallow depths in the laterite soils. The estimate will form the basis of the development plan and updated feasibility study for a stand-alone scandium mine and processing facility near the township of Fifield in central-west NSW (approximately 450km west of Sydney).

**Figure 1: Syerston Scandium Project Mineral Resource Area**



<sup>1</sup> For further details of historically reported Mineral Resource and Ore Reserve estimates, see the Company’s ASX announcements of 17 March 2016, 30 August 2016 and 28 September 2020.

The updated MRE (refer Table 1) comprises a total of 1,940 drill holes over 73,870 metres of drilling and includes 47,817 assays. The interpreted mineralisation covers a lateral extent of 4.5 km (north-south) by 4.2 km (east-west).

**Table 1: Syerston Scandium Project Mineral Resource Estimate (JORC 2012)**

Cut-off	Class	Mt (dry)	Sc (ppm)	Sc (t)	Sc <sub>2</sub> O <sub>3</sub> Eq (t)*
300 ppm Sc	Measured	5.3	436	2,299	3,518
	Indicated	18.2	400	7,284	11,144
	<b>M+I</b>	<b>23.5</b>	<b>408</b>	<b>9,583</b>	<b>14,662</b>
	Inferred	36.9	379	13,972	21,376
	<b>M+I+I</b>	<b>60.3</b>	<b>390</b>	<b>23,554</b>	<b>36,038</b>
600 ppm Sc	Measured	0.4	680	302	462
	Indicated	0.2	638	140	214
	<b>M+I</b>	<b>0.7</b>	<b>666</b>	<b>442</b>	<b>676</b>
	Inferred	0.1	642	59	91
	<b>M+I+I</b>	<b>0.8</b>	<b>663</b>	<b>501</b>	<b>767</b>

\* Sc tonnage multiplied by 1.53 to convert to Sc<sub>2</sub>O<sub>3</sub>. Figures may not total exactly due to rounding.

Within the MRE:

- 9,583t (40%) of contained scandium within the global Resource, calculated at a cut-off grade of 300ppm Sc, is classified as Measured or Indicated (M&I); and
- 442t (88%) of contained scandium within the high-grade mineralisation, calculated at a cut-off grade of 600ppm Sc, is classified as Measured or Indicated (M&I).

A technical report using the Table 1 JORC 2012 format has been prepared and is attached to this announcement.

## Project tenure

The Project is covered by a granted Mining Lease (ML1770), as well as an established bore field with water rights. Pump testing of the bore fields in 2024 confirmed sufficient water capacity to meet the needs of the Syerston Scandium Project.

SRL Ops Pty Ltd, a wholly owned subsidiary of the Company, is the 100% registered owner of ML1770, as well as the freehold owner of land on which the mining lease is granted, as well as surrounding farmland.

A Development Consent covering the Sunrise Nickel-Cobalt-Scandium Project includes approval for scandium extraction and processing on site. The current Development Consent is therefore expected to allow for most components of a much smaller stand-alone scandium operation. An assessment of whether any additional approvals are required within the scope of the permits is underway.

An electrical connection application has been submitted for the Project, with the network service provider confirming that the Project load can be supplied from the existing network. On-going work will include power systems studies to model the impact of the load on the network to determine the extent of any upstream network modifications that may be required, before progressing to a formal connection agreement.

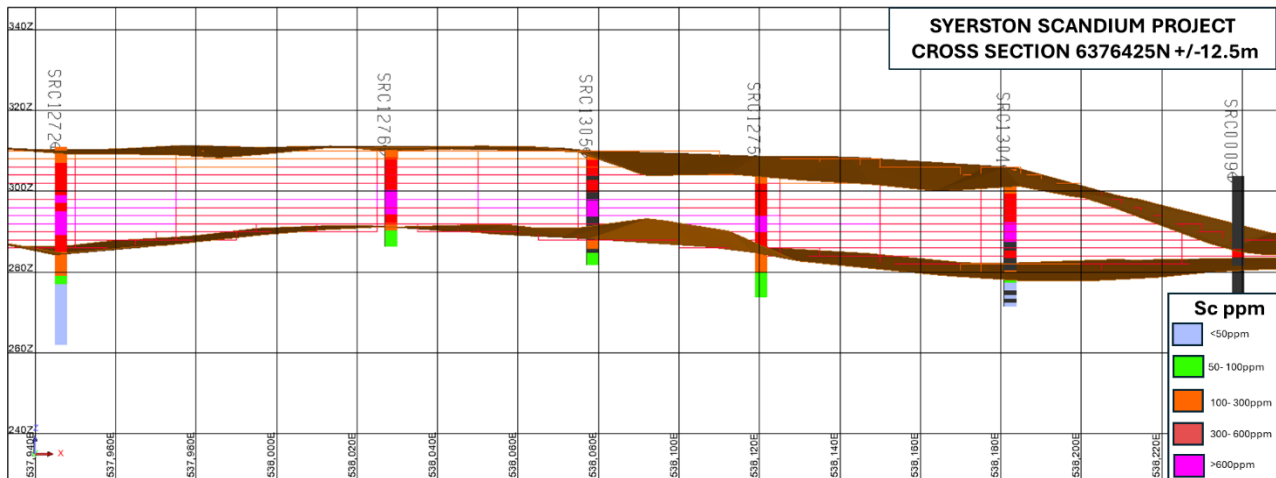
## **Geology and metallurgy**

The Syerston Scandium Project is a typical surficial deposit hosted within a Tertiary age lateritic weathered profile. Enrichment of the metals of economic interest occurred during a secondary process ascribed principally to chemical weathering of the underlying metal rich ultramafic rocks. During weathering, selective leaching of more soluble elements such as magnesium and silica occurred, leaving a highly iron-enriched laterite residue, rich in base and precious metals.

The Tout Ultramafic Complex is the intrusive body which underlies the laterite at the Syerston Scandium Project. The complex is concentrically zoned, with ultramafic rocks in the core grading to mafic material on the periphery. Accelerated preferential weathering over the ultramafic core has resulted in the laterite profile reaching its maximum thickness of 35 to 40 metres and thinning out laterally over surrounding mafic rocks.

Scandium mineralisation occurs from the transported alluvial layers in the uppermost part of the deposit to the residual goethite zones below. Due to the shallow nature of the mineralisation, it is certain that mine strip ratios will be low. Additionally, zones of high-grade scandium can be selectively mined, particularly in the early years of operation.

**Figure 2: Syerston Oblique Cross Section with Model Grade Estimates**



As highlighted in the Company's previous metallurgical test work and piloting focused on scandium recovery, reasonable prospects for economic extraction from the Mineral Resource is supported by:

- anticipated low mining costs as a result of the near-surface nature and high-grade of mineralisation;
- the amenability of the laterite ore to leaching using sulphuric acid at high-temperature and pressure, as demonstrated in metallurgical test work; and
- the scandium mineralisation containing relatively low amounts of gangue minerals, translating to relatively low acid consumption.

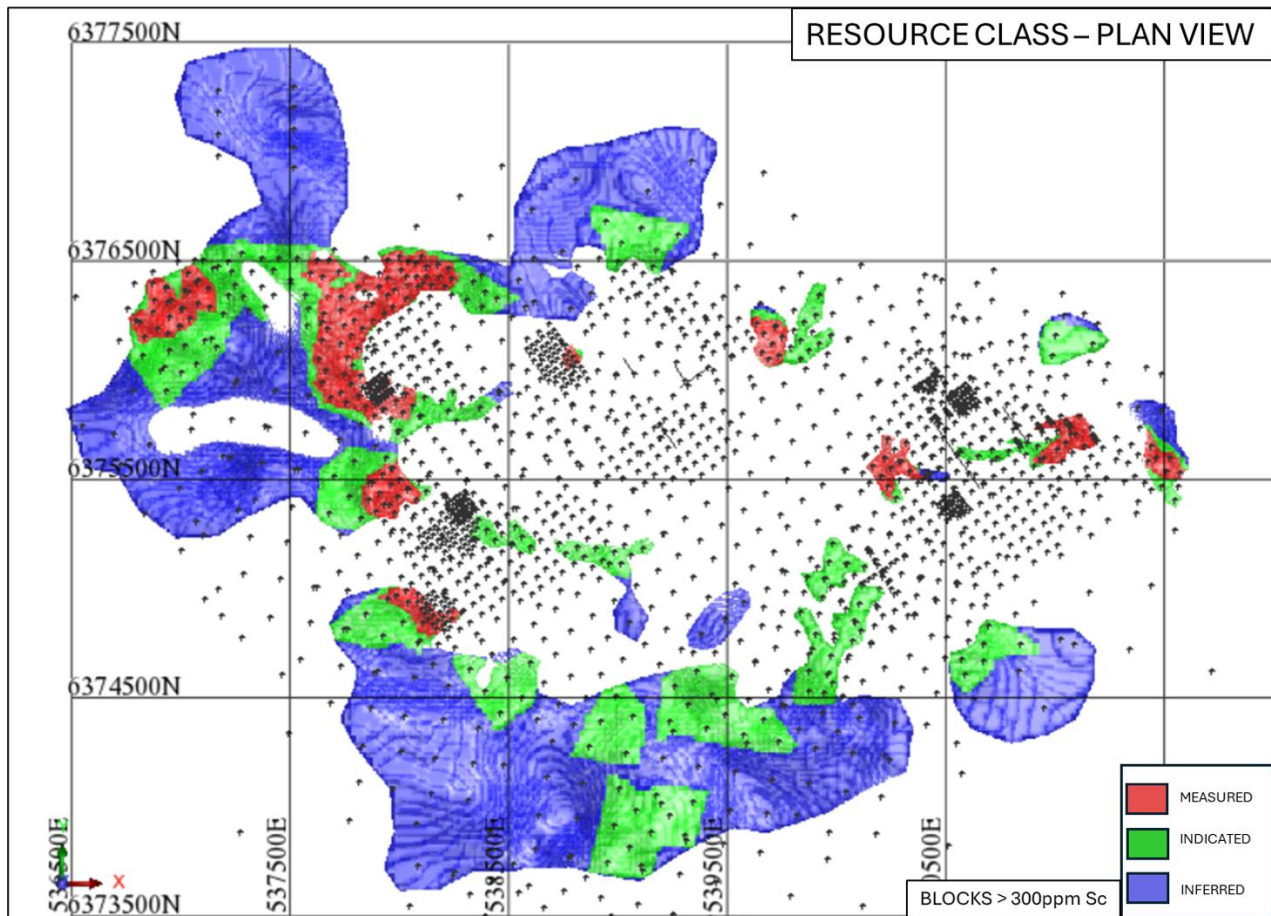
### Drilling campaign

Figure 3 shows the location of drill holes across the MRE, as well as the distribution of the resource categories. There remain areas of undrilled potential adjacent to zones of high-grade mineralisation that justify further testing via a drill campaign, scheduled to commence in 2Q CY25.

The drilling campaign will focus on expanding the tonnage and grade within the high-grade areas of the deposit. There remain a number of undrilled areas on the periphery of the dunite intrusion where the high-grade scandium appears to be concentrated.

The campaign will be relatively short in duration and involve reverse circulation (RC) and/or air core (AC) drilling to shallow depths.

**Figure 3: Syerston Drill Hole Locations and Distribution of Resource Categories**



### **Syerston Scandium Project Feasibility Study**

Based on earlier metallurgical test work results and development studies in 2016, as well as subsequent process design and engineering work on the scandium circuit in the Sunrise nickel-cobalt development, updated capital and operating cost estimates for the Syerston Scandium Project were sought and completed by GR Engineering Services in late 2024 for input into an updated Syerston Scandium Project Feasibility Study.

A key element of the new Feasibility Study for the Syerston Scandium Project will be the design scope, in particular the size of the initial development, its nameplate capacity and the final products that will need to be produced to supply diverse end markets. To better inform those design decisions, the Company is working with potential offtakers to provide greater clarity on volume, price and product specifications, before finalising the Feasibility Study scope.

The Company will update the market as this work progresses.

## Market developments

The scandium market has evolved substantially over the past decade. While demand for scandium in solid oxide fuel cells has grown steadily, and remains the largest end-use, there are excellent growth prospects across the aluminium market, where scandium delivers the stronger and lighter alloys that are increasingly required in automotive and aerospace applications. The alloy market has the ability to rapidly accelerate scandium demand growth, provided alloy customers are confident that reliable and sustainable supply options are available to meet that growth.

The Company's development work over the past 18 months with leading US research institutions has resulted in the filing of several patents for scandium-containing high-volume alloys (such as the 6-xxx series aluminium alloys).

In addition to fuel cells and alloys, a number of strategic and high-value applications for scandium have emerged in recent years. The Company's development work with industrial partners in the United States continues to be encouraging, supporting the filing of patents relevant to the use of scandium in the manufacture of aluminium-scandium alloy sputtering targets. These targets are already the key materials in the manufacture of AlScN thin films for 5G/6G semiconductors, the enabling technology for smart phones and cellular communications today. In addition, the extremely strong ferroelectric and polarisation properties of AlScN thin films make them a leading contender for a new generation of energy-efficient, low-cost memory chips in compute-intensive server applications.

On the supply side, end-users of scandium in the United States and Asia have confirmed that potential export restrictions on scandium products (and processing-related equipment) from China are presenting significant challenges across the supply chain. As a result, expressions of interest have been sought and received from customers seeking to secure new sources of scandium supply.

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

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**About Sunrise Energy Metals Limited (ASX:SRL: OTCQX:SREMF)** – Sunrise Energy Metals Limited owns the Sunrise Nickel-Cobalt Project in central-west New South Wales, one of the largest and most cobalt-rich nickel laterite deposits in the world. It is also evaluating the Syerston Scandium Project for development, with the aim of developing it as the world's first source of mineable, high-grade scandium.

**About the Syerston Scandium Project** – The Syerston Scandium Project, located near Fifield in central-west New South Wales, hosts one of the world's largest and highest-grade scandium (Sc) deposits. A feasibility study for the Syerston Project was completed in August 2016, supported by extensive piloting, metallurgical test work and engineering. The Study was subsequently superseded by a development plan for a much larger nickel-cobalt resource, which would recover scandium as by-product.

## **Competent Person Statements**

*The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Stuart Hutchin who is a Member of the Australian Institute of Geoscientists (#5285), and a full-time employee of Mining One Pty Ltd. Mr Hutchin has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Hutchin, who is a consultant to the Company, consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*This release may contain forward-looking statements. The actual results could differ materially from a conclusion, forecast or projection in the forward-looking information. Certain material factors or assumptions were applied in drawing a conclusion or making a forecast or projection as reflected in the forward-looking information.*



# ANNEXURE: JORC 2012 Table 1 Criteria Assessment

CRITERIA	JORC CODE EXPLANATION	COMMENTARY																																				
<p><i>Sampling techniques</i></p>	<p><i>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.</i></p> <p><i>Include reference to measures taken to ensure sample representation and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg 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 (eg submarine nodules) may warrant disclosure of detailed information.</i></p>	<p><b>Drillhole Summary</b></p> <table border="1" data-bbox="699 421 1347 667"> <thead> <tr> <th>Period</th> <th>Hole Type</th> <th>No. of Holes</th> <th>Hole Prefix ID</th> <th>Total Meters</th> <th>Avg. Meters</th> </tr> </thead> <tbody> <tr> <td>1997-1998, 2018</td> <td>DD</td> <td>37</td> <td>SCWX, SDDXXX</td> <td>2,806</td> <td>75.8</td> </tr> <tr> <td>1992-2018</td> <td>RC</td> <td>1548</td> <td>SRCXXX, FPDX, PXX, SRBXX</td> <td>59,898</td> <td>38.7</td> </tr> <tr> <td>1988, 1994</td> <td>RAB</td> <td>207</td> <td>CMDX, FRXXX,</td> <td>6,891</td> <td>33.3</td> </tr> <tr> <td>1994, 1997</td> <td>AC</td> <td>148</td> <td>SACXX</td> <td>4,275</td> <td>28.9</td> </tr> <tr> <td colspan="2">Total</td> <td>1940</td> <td></td> <td>73,870</td> <td>38.1</td> </tr> </tbody> </table> <p><b>2016 – 2018 Drilling</b></p> <p>Additional phases of reverse circulation (RC) drilling were undertaken between February 2016 and February 2018. These programs further delineated the Scandium Resource, sterilised the mineral resource southern extents, provided twin hole RC data for evaluation.</p> <ul style="list-style-type: none"> <li>• SRC1369 to SRC1383 - 23 February 2016 to 27 February 2016</li> <li>• 34 RC sterilisation drill holes. SRC1384 to SRC1417 - 4 July 2017 to 11 July 2017</li> <li>• 10 x RC twin holes. SRC1418 to SRC1427 - 1 September 2017 to 4 September 2017</li> <li>• 8 diamond holes. SDD014 to SDD021 (Diamond core holes drilled adjacent to twin holes) - 6 October 2017 to 7 November 2017 (not sampled).</li> <li>• 124 RC drill holes on 20m x 20m spacing. SRC1428 to SRC1551. Tested four separate locations in the proposed mining area: Area A (southeast), Area B (northeast), Area C (southwest), Area D (northwest). – 18 January 2018 to 22 February 2018.</li> <li>• 1 x metallurgical test hole. SRC1552 drilled on 22 February 2018 adjacent to existing twin holes.</li> </ul> <p>2017 holes SRC1418-SRC1427 drilling were sampled with Riffle splitter located underneath the cyclone. Duplicates were taken through a second riffle splitter to produce a duplicate sample. 2 duplicates were produced for each hole.</p> <p>2018 RC holes SRC1428-SRC1552 were sampled with a Riffle splitter located underneath the cyclone after trialling a rotary splitter on the first 3 holes. The last hole, SRC1552, was used for metallurgical studies. Drilling duplicates were taken for every sample ending in 5 (1:10) and weighed to ensure appropriate splitting was occurring.</p> <p>Approximately 2-4kg field samples were obtained by riffing and submitted to independent commercial laboratories for sample preparation and assaying.</p> <p>Sample preparation at all the laboratories used reportedly involved pulverising the total received sample to nominal minus 75µm.</p> <p><b>2015 Drilling</b></p> <p>Ninety-two (92) RC drillholes were drilled in 2015 (34 in May and 58 in November), all of which were considered in the 2016 resource modelling study. Initially, in the May programme, two-metre (2m) composite samples were collected from a riffle splitter attached to a cyclone on the drill rig. The 2m composites were collected into individual numbered calico bags which delivered directly from site to ALS labs in Orange, NSW for preparation and geochemical analysis. Every 1m of material expelled by the drill rig was collected via a cyclone and placed in large plastic sample bags also individually</p>	Period	Hole Type	No. of Holes	Hole Prefix ID	Total Meters	Avg. Meters	1997-1998, 2018	DD	37	SCWX, SDDXXX	2,806	75.8	1992-2018	RC	1548	SRCXXX, FPDX, PXX, SRBXX	59,898	38.7	1988, 1994	RAB	207	CMDX, FRXXX,	6,891	33.3	1994, 1997	AC	148	SACXX	4,275	28.9	Total		1940		73,870	38.1
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		<p>numbered. While most sample bags have been removed, some pulp samples are currently stored onsite for future use/reference. Two duplicate samples were collected from bagged one metre intervals.</p> <p>Samples from 4–5m and 5–6m were sampled using a spear and then combined to form a composite matching that collected from the riffle splitter for the same combined interval. Two duplicates were collected to ensure consistency of spearing the material. In addition, a (one) Certified Standard was also added to the samples for each hole. The standard was sourced from Ore Research Exploration (ORE) based in Melbourne. The standard is coded as ORES45e and a complete certified analysis of the standard is available from OREs web site. <a href="http://www.ore.com.au/">http://www.ore.com.au/</a> In the November programme, one metre samples were taken from the riffle splitter and processed in the same manner as the May 2015 2m samples.</p> <p>Between May and November 2015, a resampling programme was undertaken to obtain 1m samples from the May 2015 drilling programme. These one metre resamples were taken from the plastic bags and processed in the same manner as the May 2015 2m samples.</p> <p><b><u>2014 Drilling</u></b></p> <p>Fourteen RC drillholes were drilled in 2014, all of which were considered in the 2016 resource modelling study. Two-metre (2m) composite samples were collected from a riffle splitter attached to a cyclone on the drill rig.</p> <p>The 2m composites were collected into individual numbered calico bags which delivered directly from site to ALS labs in Orange for preparation and geochemical analysis. Every 1m of material expelled by the drill rig was collected via a cyclone and placed in large plastic sample bags also individually numbered. While most sample bags have been removed, some pulp samples are currently stored onsite for future use/reference. Two duplicate samples were collected from bagged one metre intervals. Samples from 4–5m and 5–6m were sampled using a spear and then combined to form a composite matching that collected from the riffle splitter for the same combined interval. Two duplicates were collected to ensure consistency of spearing the material. In addition a (one) Certified Standard was also added to the samples for each hole. The standard was sourced from Ore Research Exploration (ORE) based in Melbourne. The standard is coded as ORES45e and a complete certified analysis of the standard is available from OREAs web site. <a href="http://www.ore.com.au/">http://www.ore.com.au/</a></p> <p><b><u>Pre-2014 Drilling</u></b></p> <p>A total of 1,228 drillholes from pre-2014 drilling campaigns were considered in the 2016 resource modelling study. Historic aircore (AC) drillholes (prefixed ‘SAC’) were eliminated from grade estimation if they have a more-recent RC drillhole collared within approximately 10m of their location. The pre-2014 holes represent the same drillhole dataset accepted for inclusion in previous resource estimation work (primary interest in Ni-Co).</p> <p>The pre-2014 drillhole dataset comprises 1,183 RC holes and 45 aircore holes. The 45 aircore (AC) holes were commissioned by Uranium Australia and drilled between Aug’95–Aug’96 (series SAC120–SAC267). In the same 1995–96 drilling campaign, Uranium Australia commissioned 341 RC drillholes (SRC001–SRC340, incl. SRC052A). Black Range Minerals commissioned 725 of the RC drillholes (series SRC341–SRC1076) between Aug’98–Oct’00. The remaining 117 RC drillholes (series SRC1077–SRC1193) were commissioned by Ivanplats and drilled in Feb/Mar’05. All drillholes were drilled vertically, with an average depth of 37.2m.</p> <p>Aircore samples were taken over a nominal 2m interval. The samples were split in the field to approximately 2kg. RC samples were generally collected over a nominal 1m length. The samples were collected from a rig-mounted cyclone, weighed, and split to a tertiary sample using a 3-tier multi-stage riffle splitter. The assay sample was collected in a small plastic bag that was stapled and wrapped with tape for security, while the reject was retained in a large plastic bag. Procedure dictated that the cyclone be cleaned at the end of each</p>

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		<p>6m rod, and the riffle splitter cleaned after each sample by shaking and blowing with compressed air.</p> <p>Sub-sampling of wet samples was undertaken using a spear or grab sample. Samples not expected to be mineralised (for Ni-Co) were subsequently composited for assaying or not assayed at all. A significant number of un-sampled intercepts (470) are present in the database. Of these 470 intercepts, a large proportion (337) start at the collar. Some 240 of these un-sampled from-collar intercepts extend the entire hole length (up to hole length of 64m).</p> <p>The remaining 97 un-sampled from-collar intervals are the top sample of an otherwise-sampled hole; these have an average length of 17.88m and a maximum length of 42m.</p>
<p><i>Drilling techniques</i></p>	<p><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>	<p><b><u>2018 Drilling</u></b></p> <p>A truck-mounted UDR1000 Multi-Purpose Rig was used. Samples were collected using a cyclone and riffle splitter connection to the cyclone. 1m samples were collected. Diamond drilling was undertaken using a diamond rig of PQ and HQ sized coring.</p> <p><b><u>2015 Drilling</u></b></p> <p>A Halco 650 Reverse Circulation drill rig was used to conduct the drilling in May and a UDR 65 RC rig was used in November. A nominal 5.5" diameter sampling hammer was used. Samples were collected using a cyclone and riffle splitter connected directly to the drill rig. A resampling programme using spearing from 1 m keepsake bags was undertaken for the May 2015 programme. The same rig was used for the sterilisation drill holes in 2017.</p> <p><b><u>2014 Drilling</u></b></p> <p>A Halco 1200 Reverse Circulation drill rig was used to conduct the drilling. A nominal 5.5" diameter sampling hammer was used. Samples were collected using a cyclone and riffle splitter connected directly to the drill rig.</p> <p><b><u>Pre 2014 Drilling</u></b></p> <p>Aircore from the 1995–96 campaign was drilled using low-powered drag bits that had difficulty penetrating the Siliceous Goethite zone but were otherwise considered suitable. RC drilling was conducted using 5 ½" (c.140 mm) diameter rods with a face-sampling downhole hammer bit. The drill rig was fitted with an on-board compressor rated at 950 cfm / 350 psi, and a support truck provided booster and auxiliary compressors rated together at 1,800 cfm / 900 psi.</p>
<p><i>Drill sample recovery</i></p>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>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.</i></p>	<p><b><u>2018 Drilling</u></b></p> <p>8 diamond holes were also drilled within the mineral resource project areas but were not sampled</p> <p>2018 RC drilling recoveries were recorded and generally found to have reasonable recoveries with insignificant sample splitter bias.</p> <p><b><u>2014 and 2015 Drilling</u></b></p> <p>Sample recovery was constantly monitored; no samples were weighed however consistent size/volume of material was monitored from the cyclone and the riffle splitter. The only hole which indicated problems with recovery was SRC1274, where the drill rods become stuck in the hole and took some effort to dislodge, unfortunately this hole was abandoned before hitting</p>

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		<p>basement. Recoveries in the November 2015 programme were generally slightly more variable.</p> <p><b><u>Pre-2014 Drilling</u></b></p> <p>Sample recovery was monitored by weighing the samples prior to splitting. Recovery was considered to be generally satisfactory for drilling in a lateritic profile, although generally lower sample weights were recorded in the 1998–1999 RC programme. An independent sample recovery study into this issue was commissioned in 1999, with the conclusion that there was an observable bias in the Ni grade however the magnitude of the bias was considered within acceptable margins of error for resource estimation.</p> <p>No recovery information has been located for the aircore drillholes.</p>
<p><i>Logging</i></p>	<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p><b><u>2018 Drilling</u></b></p> <p>2018 geological logging was performed under strict, documented logging protocols. Revised geological domain criteria relied on primarily on elemental ratios rather than logged interpretations. This provided a more consistent and reliable interpretation for subsequent mineral resource estimation.</p> <p><b><u>2014 and 2015 Drilling</u></b></p> <p>Logging took place by taking a speared sample from each 1 m bag of drill chips collected from the cyclone. This material was then placed in a sieve and washed to remove dust and fine particles, leaving residual coarse chips for logging. A sample of these chips was then collected to represent each one meter and placed in a chip tray. Visual logging of the material employed a method focused on identifying laterite lithology and basement geology where intersected: lithology, weathering, alteration, veining and structure were all recorded.</p> <p><b><u>Pre-2014 Drilling</u></b></p> <p>Logging included lithcode and weathering, as well as minerals present with accompanying percentage estimates, texture, and colour. Moisture was also logged.</p>
<p><i>Sub- sampling techniques and sample preparation</i></p>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representation of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p><b><u>2017 and 2018 Drilling</u></b></p> <p>2017 holes SRC1418-SRC1427 drilling was sampled with Riffle splitter located underneath the cyclone. Duplicates were taken through a second riffle splitter to produce a duplicate sample. 2 duplicates were produced for each hole.</p> <p>2018 RC holes SRC1428-SRC1552 were sampled with a Riffle splitter located underneath the cyclone after trialling a rotary splitter on the first 3 holes. The last hole, SRC1552, was used for metallurgical studies. Drilling duplicates were taken for every sample ending in 5 (1:10) and weighed to ensure appropriate splitting was occurring.</p> <p>No diamond core samples were used for resource grade estimation.</p> <p>RC holes were usually dry and field samples of approximately 2-4kg were collected by riffling, consistent with common industry practice. Some damp or wet intervals were sampled by spear or grab sampling. The proportion of wet intervals was reported to have been very small, but they were not identified in the drill hole database, so they could not be quantified.</p> <p>2018 drilling wet intervals were air dried before manually riffing. Sample preparation at all the laboratories used reportedly involved pulverising the total received sample to nominal minus 75µm.</p>

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
		<p><b><u>2014 and 2015 Drilling</u></b></p> <p>Samples were delivered to ALS in Orange, NSW for sample preparation/ grinding/pulverisation to produce homogeneous material/subsamples for transfer to ALS in Brisbane, QLD for analysis.</p> <p><b><u>Pre-2014 Drilling</u></b></p> <p>Prior to 1999, ALS in Orange was the primary laboratory for sample preparation and assaying. Subsequently Ultratrace (WA) became the primary laboratory, with Genalysis (WA) used as a check laboratory. All samples were pulverised to –75µm in Labtech-ESSA LM5 mills. Samples sent to ALS were routinely assayed for Ni and Co by perchloric acid digest of an 0.25g pulp with an AAS finish. ICP_OES was used for other elements. Ultratrace routinely assayed by 4-acid digestion of a 0.3g pulp with an ICP_OES finish.</p>
<p>Quality of assay data and laboratory tests</p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>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.</i></p> <p><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></p>	<p><b><u>2017 and 2018 Drilling</u></b></p> <p>In 2014-2017 samples were reportedly assayed at Australian Laboratory Services Pty Ltd (ALS), Brisbane, Queensland, after sample preparation at their Orange, New South Wales, facility. An aliquot of 0.25gm was digested in a mixture of Perchloric, Nitric, Hydrofluoric and Hydrochloric acids, and analysed for Sc and 32 other elements, including Ni and Co, by Inductively Coupled Plasma – Atomic Emission Spectroscopy (ICP-AES). ·</p> <p>In 2018, samples were assayed at Australian Laboratory Services Pty Ltd (ALS), Perth, Western Australia or Adelaide, South Australia, after sample preparation at their Orange, NSW, facility.</p> <p>2017 drilling of holes SRC1418-1427 used 1 standard and 1 blank type. 2 duplicates were taken per hole collected at static hole depths of 5-6m and 21-21m.</p> <p>2018 drilling campaigns had comprehensive QAQC protocols utilising 6 certified standards placed at regular intervals in the drilling sequence Umpire checks were also made using an independent laboratory. All samples were processed by ALS Orange and tested by ALS Brisbane or Adelaide. A small number of batches contained outlier standard results against certified values and require re-analysing. The re-checks were not available at the time of the revised Mineral Resource update, but the errors were not considered material to the overall resource. Approximately 10% (2,178 samples) of the 2018 drill samples were randomly selected for re-testing by ITS (Intertek) laboratories. Umpire checks were independently reviewed by Portal Spectral Services Geochemist who concluded that there were no precision or bias issues with the ALS results for all elements tested.</p> <p>The mineralised material is predominantly fine to very fine grained. Sizing analysis of typical RC cuttings showed that on average approximately 60-75% by weight was minus 0.1mm. Sample sizes were appropriate.</p> <p>All assaying methods were appropriate for Ni, Co and Pt, and were regarded as total determinations.</p> <p><b><u>2014 and 2015 Drilling</u></b></p> <p>Quality of assay data has been assessed by examining both results from Standard ORES45e and duplicates. ALS Laboratories also has its own internal QA/QC procedures. All ALS geochemistry laboratories in Australia are certified to ISO 9001:2008 and the Brisbane laboratory holds NATA technical accreditation to ISO 17025:2005. In addition, assessment of the principal target mineral was done via two different analytical methods. Both borate fusion and 4-acid digest ICP-MS techniques were used. This has also provided additional comparative data to assess the performance of the Laboratories. Only 4-acid digest ICP-MS data was used in resource estimation.</p>

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		<p><b><u>Pre-2014 Drilling</u></b></p> <p>Extensive QA/QC work was undertaken in all pre-2014 drilling campaigns. Certified reference material (CRM) standards were inserted at a rate of two per 100 samples. Five in-house CRMs were developed from aircore rejects by Gannett Holdings Pty Ltd and used routinely, in addition to five commercial Ni laterite standards sourced from Geostats Pty Ltd.</p> <p>A programme of re-assaying of pre-1999 ALS samples at Ultratrace was undertaken at the time of changing laboratories.</p> <p>Field duplicate samples were routinely taken at the rate of 1 per 35 samples.</p>
<p><i>Verification of sampling and assaying</i></p>	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p><b><u>2017 and 2018 Drilling</u></b></p> <p>In 2017, a new Micromine Geobank (CLQGB) database was created with hole details from historic database and other sources; collars imported from original surveyor's report (60% identified in either AMG84 or MGA coordinates); and assay from original sif or csv lab assay report files with full metadata (67%) with balance from csv assay report files with metadata added. 35,135 records were imported for SAC and SRC hole series.</p> <p>All 2018 drilling data was added directly to the Geobank database from source and reviewed by CleanteQ geologists for consistency. Assay results were downloaded directly from ALS's secure webtrieve website and uploaded directly into the Geobase database and QAQC performance verified against certified values.</p> <p><b><u>2014 and 2015 Drilling</u></b></p> <p>Use of an independent standard and duplicates enable verification of both analysis and sample acquisition via a riffle splitter. By offering known accurate geochemical results to compare to ALS/Laboratory results. And alternative sampling method to compare sample collected from Riffle splitter on the drill rig.</p> <p>Nine 2015 RC drillholes were collared within approximately 10m of old aircore (SAC-prefixed) holes. Comparison of the mineralised intercepts in these holes was made less reliable due to differing sample intervals and un-sampled intervals in the aircore holes, however, in general, there was reasonable agreement in the downhole location and tenor of mineralisation. These nine aircore holes were subsequently dropped from the dataset in favour of the more recent RC data.</p> <p><b><u>Pre-2014 Drilling</u></b></p> <p>Check assaying at a second laboratory was introduced after 1999.</p> <p>A programme of 26 twinned drillholes was undertaken in 2005 for verification. A detailed paired hole analysis was also completed based on 34 close-spaced drillholes (i.e. within 6 m), comparing aircore, RC and diamond drillhole results. While results were within acceptable limits for Ni, Co, and Pt, no specific analysis of scandium has been located.</p>
<p><i>Location of data points</i></p>	<p><i>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.</i></p>	<p><b><u>2016 – 2018 drilling</u></b></p> <p>In 2017, all available surveyor's reports were identified with majority of holes surveyed in AMG84 grid with 2014-2016 holes surveyed in MGA grid and imported into Geobank database. The AAM geospatial services company provided additional geodetic survey control in 2017 for proposed Lidar Survey. This also provided an independent check against former licensed surveyor (Geolyse Pty Ltd) survey control points. In 2018 all drill collars were surveyed by Geolyse Pty Ltd in MGA grid and the coordinates retained in the Geobase database.</p>

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
	<p><i>Specification of the grid system used. Quality and adequacy of topographic control.</i></p>	<p><b><u>2014 Drilling</u></b></p> <p>Collar surveys were obtained by Geolyse licensed surveyors of Orange, NSW using total station instruments referencing local concreted control marks. Coordinates were supplied in MGA zone 55 with AHD heights and also in local grid.</p> <p><b><u>Pre-2014 Drilling</u></b></p> <p>Holes drilled after 1998 were surveyed by licensed surveyors using total station instruments referencing local concreted control marks. Collar positions were reported in AGD84 and local grid. Survey control prior to 1998 is not well documented, however the number of holes from this campaign is not high therefore the risk is considered within acceptable limits. Surveyed collar RL's were compared to a photogrammetric topographic survey in 1999, providing satisfactory results. No downhole surveying has been located, however the risk of significant deviation is considered low due to the vertical dip and short lengths of the holes.</p>
<p><i>Data spacing and distribution</i></p>	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>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.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p><b><u>2016 – 2018 drilling</u></b></p> <p>Most of the deposit area has been covered by vertical RC drilling on a 120m x 120m pattern. A substantial proportion of the more strongly mineralised areas have been covered by vertical RC drilling on a 60m x 60m pattern and some limited areas have been infilled to 30m x 30m. This is sufficient to establish geological and grade continuity appropriate for the resource estimation procedures used and resource classifications applied. · 4 small areas (100x100m) were drilled at a close spacing of nominally 20 x 20m spacing · For resource estimation purposes drill hole samples were composited over 1m down hole intervals to reflect block model parameters and likely open pit working bench heights.</p> <p>The 2018 program provided close spaced RC data on a nominal 20x20m grid pattern in 4 selected areas of the mineral resource (Areas A-D) to provide detailed information on mineralisation variability.</p> <p><b><u>2015 Drilling</u></b></p> <p>The location and distribution of the 2015 RC drill programs was targeted to infill gaps in drilling in and around two northern high-grade scandium pods on EL 4573. Drill collars were targeted to confirm the presence of interpreted mineralised zones and were staggered on an alternating orthogonal grid bringing collar distances to generally 60–70 m apart.</p> <p><b><u>2014 Drilling</u></b></p> <p>The location and distribution of the August 2014 RC drill program was largely orientated along the northern boundary of EL 4573 at a spacing of 75 m in the east west direction. The location of the drillholes was restricted to known farm tracks and positioned directly south (200m) of a known scandium Resource defined by in 2013.</p> <p><b><u>Pre-2014 Drilling</u></b></p> <p>RAB drilling on 240 m centres was initially used to scope out the extent of the Ni-Co resource. Subsequent infilling to 120 x 120 m using aircore and RC drilling was completed over most of the area, with further RC infilling to 60 x 60 m over an area of approximately one third of the total extent. Drill spacing is not consistent over the entire area, and drilling of the scandium resource is generally less closely-spaced than the Ni-Co resource drilling.</p>

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<p><i>Orientation of data in relation to geological structure</i></p>	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>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.</i></p>	<p>Vertical drill holes were appropriate for delineation of the broadly sub-horizontal laterite hosted Ni-Co mineralisation. There was no definitive evidence of the Co mineralisation being structurally controlled in the revised geological interpretation</p> <p>The laterite soil being targeted has developed over an ultramafic intrusion. This intrusion has intruded into the surround geology as a pipe/plug like body. The orientation of the drilling is approximately along an east west axis in the vicinity of the northern boundary of the ultramafic body.</p>
<p><i>Sample security</i></p>	<p><i>The measures taken to ensure sample security.</i></p>	<p>In 2014-2018 the drilling program was under the supervision of a site geologist to ensure that sample protocols including sample custody were monitored.</p> <p>Sample were collected and then immediately delivered to ALS Laboratories in Orange by Ivanplats supervising geologist. Submission forms and accurate labelling of sampling bag should ensure no errors are introduced into the analysis of samples. Residual pulps from preparation of samples at ALS have been retained by at ALS so to enable further QA/QC to take place if required.</p>
<p><i>Audits or reviews</i></p>	<p><i>The results of any audits or reviews of sampling techniques and data.</i></p>	<p>No audits or reviews have taken place. The geological modelling and resource estimation has been undertaken by an independent geologist.</p>



## Section 2: Reporting of Exploration Results

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<p><i>Mineral tenement and land tenure status</i></p>	<p><i>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.</i></p> <p><i>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.</i></p>	<p>The Syerston Scandium Project (Project) is covered by a granted Mining Lease (ML1770).</p> <p>SRL Ops Pty Ltd, a wholly owned subsidiary of the Company, has 100% ownership of the Mining Lease that comprises the Project, as well as extensive freehold ownership of the land comprising the Project site and surrounding farmland.</p>
<p><i>Exploration done by other parties</i></p>	<p><i>Acknowledgment and appraisal of exploration by other parties.</i></p>	<p>Local platinum group mineralisation (PGM) has been known about for many years, with pioneers mining alluvial PGMs at nearby Fifield as early as 1920's. At Syerston, exploration began in 1986 for PGMs, however drilling showed considerable Ni-Co mineralisation. Which became the focus of exploration and development for the next 25 years. Extensive drilling and development to date:</p> <p>– 2000: Black Range Minerals completed a feasibility study for Ni-Co, including 732 RC drillholes and 9 bulk metallurgical samples.</p> <p>2004: Ivanplats Syerston completed another feasibility study for Ni-Co after acquiring the project from Black Range, including an additional 175 RC drillholes for 6,748m.</p> <p>Sunrise Energy Metals (SEM) has access to all the historic data, and in addition has access to original samples collected from drilling by Ivanplats and Black Range.</p>
<p><i>Geology</i></p>	<p><i>Deposit type, geological setting and style of mineralisation.</i></p>	<p>The scandium mineralisation is hosted within a lateritic soil profile developed from weathering and seasonal water table movements over the Tout Ultramafic Complex.</p> <p>The Complex has a dunite core at the centre with outer more mafic units including pyroxenite surrounding.</p> <p>Historically, little focus was given to scandium at the Project, however work since 2015 has shown the scandium grades are very high by global standards. Neighbouring EL's also covering the Tout Ultramafics have delivered laterite scandium resources with grades of approximately 200-400 ppm Sc.</p>

<p><i>Drill hole Information</i></p>	<p><i>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:</i></p> <ul style="list-style-type: none"> <li>• <i>easting and northing of the drill hole collar</i></li> <li>• <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li>• <i>dip and azimuth of the hole</i></li> <li>• <i>down hole length and interception depth</i></li> <li>• <i>hole length.</i></li> </ul> <p><i>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.</i></p>	<p>Results from the 2014 drilling campaign were announced on 8 December 2014. Results from the 2015 drilling campaign were announced on 21 December 2015.</p> <p>Drillhole location information has been provided in previous ASX announcements, a summary plan of the drillhole locations is shown in this ASX announcement.</p>
<p><i>Data aggregation methods</i></p>	<p><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i></p> <p><i>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.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	<p>Weighted averages are used for reporting all assay intervals from all drillholes.</p>
<p><i>Relationship between mineralisation widths and intercept lengths</i></p>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>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').</i></p>	<p>Shallow vertical drilling was undertaken at the Project. Little or no deviation from vertical is expected when drilling soft laterite soils, particularly when using a powerful drill rig. In addition, laterites are generally horizontal in nature.</p> <p>Therefore, it is assumed that the intersections from the drilling are representative of the true width of the mineralisation.</p>

<p><i>Diagrams</i></p>	<p><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported.</i></p> <p><i>These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></p>	<p>Maps are provided in previous ASX announcements that show the distribution of drilling across the deposit.</p>
<p><i>Balanced reporting</i></p>	<p><i>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.</i></p>	<p>Sunrise Energy Metals (SEM) has released balanced reports that reflect and accurately report the results obtained from exploration carried out. Any external information included in reports will be adequately referenced to allow scrutiny.</p>
<p><i>Other substantive exploration data</i></p>	<p><i>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.</i></p>	<p>Detailed geophysical data (magnetic and gravity) detailed satellite data, detailed topography data, detailed 3D geochemical database from historical drilling, and detailed surface geology is available for the Project in line with a project that had been through two feasibility studies, an EIS and has been granted its Development Consent. This collective information/data is available to exploit and is independently validated and certified.</p>
<p><i>Further work</i></p>	<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>Future work will include:</p> <ul style="list-style-type: none"> <li>Continued drilling with the aim to expand and upgrade the currently defined scandium Mineral Resource</li> </ul>

## Section 3: Estimation of Mineral Resources

CRITERIA	JORC CODE EXPLANATION	COMMENTARY
<i>Database integrity</i>	<p><i>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.</i></p> <ul style="list-style-type: none"> <li>• <i>Data validation procedures used.</i></li> </ul>	<p>In 2017, a new Micromine Geobank (CLQGB) database was created with hole details from historic database and other sources; collars imported from original surveyor's report (60% identified in either AMG84 or MGA coordinates); and assay from original sif or csv lab assay report files with full metadata (67%) with balance from csv assay report files with metadata added. 35,135 records were imported for SAC and SRC hole series. All 2018 drilling data was added directly to the Geobank database from source and reviewed by Clean TeQ (now SEM) geologists for consistency. Assay results were downloaded directly from ALS's secure webtrieve website and uploaded directly into the Geobase database and QAQC performance verified against certified values.</p> <p>Raw data was imported from comma delimited text format into Datamine software. Statistical comparison between the raw database and the imported and de-surveyed database was completed.</p> <p>Routine validation of the imported data was undertaken to check for overlapping intervals, gaps downhole, and drillholes that do not commence at zero metres.</p>
<i>Site visits</i>	<ul style="list-style-type: none"> <li>• <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li>• <i>If no site visits have been undertaken indicate why this is the case</i></li> </ul>	<p>Given the pre-development status of the Project, a site visit is planned to be conducted once drilling recommences at the Project.</p>
<i>Geological interpretation</i>	<ul style="list-style-type: none"> <li>• <i>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</i></li> <li>• <i>Nature of the data used and of any assumptions made.</i></li> <li>• <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li>• <i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li>• <i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<p>The regolith layers were modelled initially to represent the CVR, TZ, GZ, SGZ and SAP domains.</p> <p>A Scandium domain using a 180ppm Sc cut-off was then created to constrain the areas of elevated Sc ppm.</p> <p>All domains were constructed based on geological logging contained and the Sc ppm assays contained within the drillhole database.</p>
<i>Dimensions</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<p>The interpreted mineralisation covers a lateral extent of 4.5km (NS) x 4.2km (EW). The depth extent of the high-grade pods is approximately 70m below surface, but variable across the area dependent upon the lateritic profile.</p>

<p><i>Estimation and modelling techniques</i></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li>• <i>The assumptions made regarding recovery of by-products.</i></li> <li>• <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li>• <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li>• <i>Any assumptions behind modelling of selective mining units.</i></li> <li>• <i>Any assumptions about correlation between variables.</i></li> <li>• <i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li>• <i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li>• <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<p>Modelling and grade estimation were undertaken in Datamine. A 3-dimensional block model was developed to cover the full extent of the deposit.</p> <p>The model cells were oriented in alignment to the local grid and were 25m x 25m x 2m (E x N x RL). Sub-celling was permitted so as to honour the interpreted boundaries, with the smallest permitted sub-cell being 5m x 5m x 2m. Scandium and all other element grades was estimated into the parent cells.</p> <p>An assessment of outlying grades was made and no grade cutting was considered necessary.</p> <p>Estimates were constrained by flagged MINDOM grade and lithology domain codes such that drillhole data from a particular domain were not permitted to contribute to grade estimates in any domains other than the domain in which the drillhole data is located.</p> <p>Grades were assigned to sub-cells according to the domain flag. Grade interpolation was completed using ordinary kriging. Check estimates were simultaneously developed using inversed distance weighting to the power of two (ID2) and simple kriging methods.</p> <p>Variogram parameters were derived from scandium assays contained within the 180ppm domain. Search ellipse orientation was achieved using Dynamic Anisotropy, which involves interpretation of the local orientation of the domains, estimation of the dip and dip-direction parameters, then application of those estimated dip and dip-directions to the orientation of the search ellipse.</p> <p>A three-pass search method was used whereby cells that do not receive a grade estimate in the first (smallest) search pass, move to the subsequent larger search pass(es) for a second (then third) attempt. In this case, the first search ellipse was 100m x 100m x 10m (E x N x RL) in diameter, the second search pass was 200m x 200m x 20m and the third search pass was 500m x 500m x 50m.</p> <p>The minimum and maximum numbers of samples permitted to inform an estimate was 8–24 (first pass), 8–24 (second pass), and 4–16 (third pass). A maximum of six samples were permitted from any drillhole.</p>
<p><i>Moisture</i></p>	<ul style="list-style-type: none"> <li>• <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content..</i></li> </ul>	<p>Tonnages are estimated based on dry in situ tonnages.</p>
<p><i>Cut-off parameters</i></p>	<ul style="list-style-type: none"> <li>• <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<p>Resources were reported above a 300ppm Sc and 600ppm Sc cut-off grade. The cut-offs used deliver an average global Resource grade between 390ppm Sc and 663ppm Sc.</p>

<p><i>Mining factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p>The potential mining method will be open pit. The block model has been constructed with parent and sub cell sizes to account for this. The deposit occurs from surface down to a maximum depth of 50m. Given the shallow nature of the reported mineral resources and the value per tonne ascribed to the blocks the criteria of the reasonable prospects for eventual economic extraction are met.</p>																		
<p><i>Metallurgical factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p>The block model contains grade estimation of nickel and cobalt and all elements (compounds) that effect the metallurgical processing of the nickel laterite ore. The resources are therefore reported to enable assessment of the processing amenability of the material.</p>																		
<p><i>Environmental factors or assumptions</i></p>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p>Environmental baseline monitoring is undertaken on the mining lease as part of the Development Consent requirements. The Project will likely comprise a series of shallow open pits where waste material will be stored in surface waste dumps and/or backfilled into the mined pits in a staged process.</p>																		
<p><i>Bulk density</i></p>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	<p>Bulk density measurements have been derived from the pre-2014 drilling. The bulk density database, which comprised 5,199 records from 148 drillholes, was obtained from downhole gamma logs, physical measurements on diamond core, and weighing material recovered from purpose-drilled Calweld (770 mm) drillholes. Bulk densities assigned within the Mineral Resource block model are as follows;</p> <table border="1" data-bbox="1007 1574 1353 1787"> <thead> <tr> <th>Domain</th> <th>Litho</th> <th>Mean</th> </tr> </thead> <tbody> <tr> <td>100</td> <td>CVR</td> <td>1.80</td> </tr> <tr> <td>200</td> <td>TZ</td> <td>1.70</td> </tr> <tr> <td>300</td> <td>GZ</td> <td>1.20</td> </tr> <tr> <td>400</td> <td>SGZ</td> <td>1.25</td> </tr> <tr> <td>500</td> <td>SAP</td> <td>2.00</td> </tr> </tbody> </table>	Domain	Litho	Mean	100	CVR	1.80	200	TZ	1.70	300	GZ	1.20	400	SGZ	1.25	500	SAP	2.00
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<p><i>Classification</i></p>	<ul style="list-style-type: none"> <li>• <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li>• <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li>• <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<p>The Mineral Resource is classified based on the average drill spacing and the results of the variogram analysis. The variograms provided ranges averaging 40-60m for the major structure.</p> <p>Measured blocks were typically defined where average drill spacing is less than 60m, Indicated blocks were coded at between 60m and 120m and Inferred greater than 120m.</p> <p>The classification criteria is assessed as appropriate in relation to the style of mineralisation and the average drill spacing through the deposit area.</p>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<p>No audits or reviews have yet been completed on this Mineral Resource estimate.</p>
<p><i>Discussion of relative accuracy/ confidence</i></p>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<p>The block model is based on geological domain layers that represent the commonly encountered regolith profile in scandium/cobalt/nickel laterite deposits.</p> <p>The deposit has been drilled down to a 25m x 25m spacing in places where results show a strong continuity of scandium grades. The drilling results therefore provide validation of the expected geological setting. The mineral assemblages and ratios noted in the assay dataset are line with those used to determine the boundaries between the regolith domains.</p> <p>Within the drilled areas there is a moderate to high level of confidence in the grade and thickness estimates of the deposit.</p>