



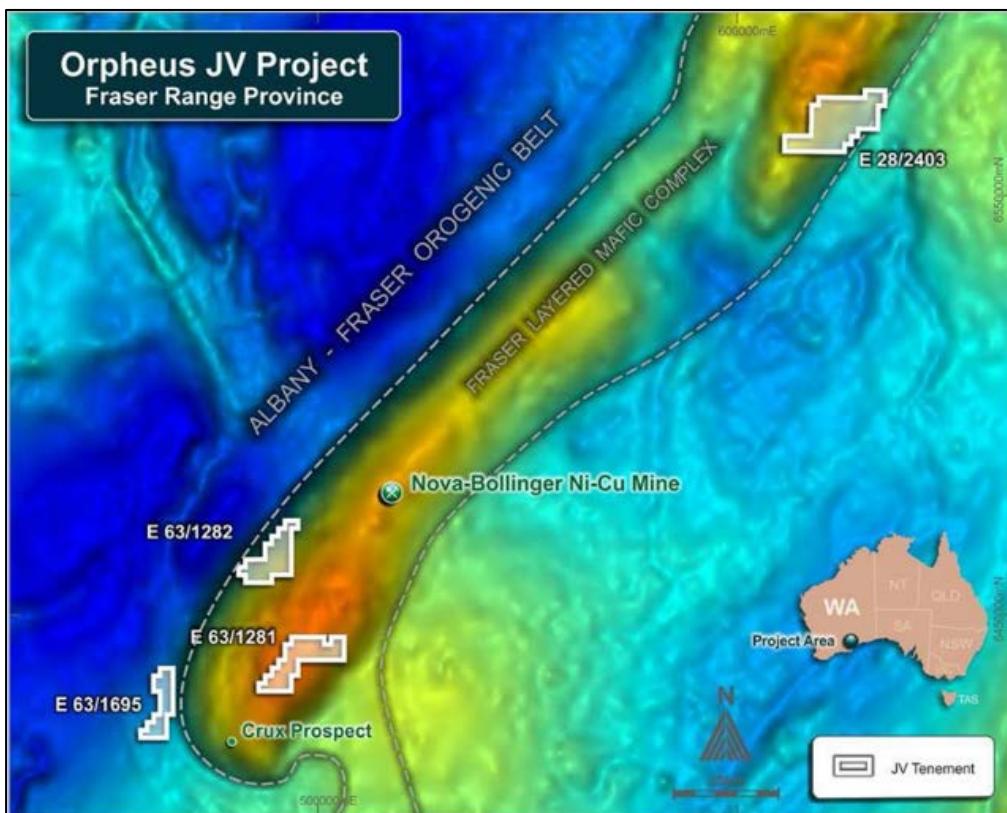
## Fraser Range - Orpheus JV Project, WA Exploration Update

Enterprise Metals Limited (ASX: ENT – “Enterprise” or “the Company”) is pleased to provide an update on the recent activities of its joint venture partner, Apollo Minerals Limited (ASX: AON – “Apollo”) at the Orpheus Joint Venture Project, located within the Albany-Fraser Orogen approximately 100km east of Norseman. Apollo is free carrying Enterprise’s 30% to completion of bankable feasibility stage on any discovery.

The Project is prospective for copper/nickel and gold mineralisation and covers the core of the Fraser Range gravity feature, which defines the prospective nickel-copper belt containing Independence Group NL’s (ASX: IGO) Nova nickel deposit.

Field work by Apollo has resulted in:

- **Identification of two priority ground gravity targets**
- **Rock chip samples reporting up to 1,134 ppm Ni and 272 ppm Cu, adjacent to a recently identified HeliTEM anomaly**
- **Gold-in-soil anomaly confirmed over magnetic feature**
- **Planning of multiple ground EM surveys and detailed soil sampling program to advance exploration to drilling stage**



**Figure 1. Orpheus JV Project tenements over Gravity Image, Fraser Range, WA.**

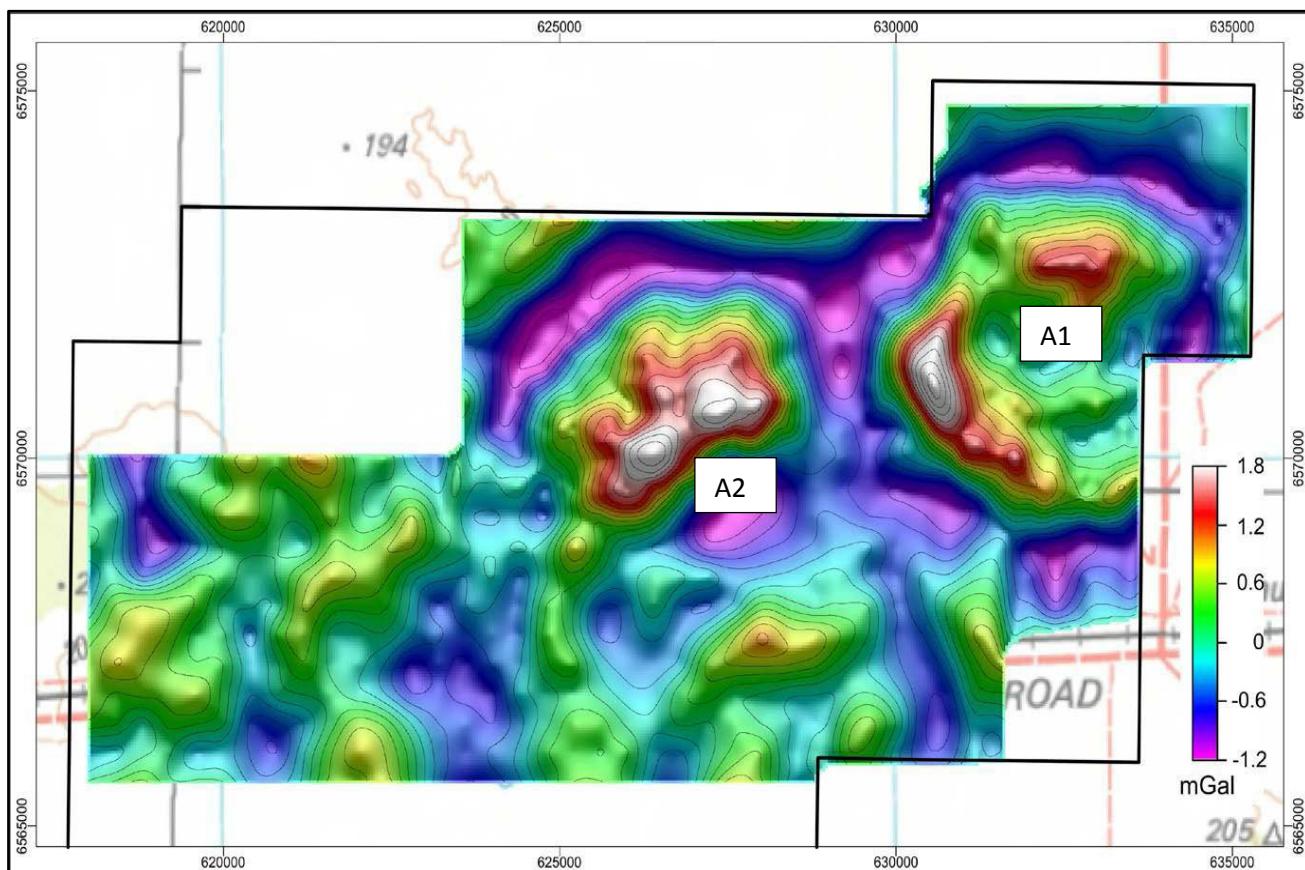
## GROUND GRAVITY SURVEYS

In January 2017, Apollo reported that two high priority target areas of interpreted gabbroic to ultramafic intrusives had been identified within Exploration Licence 28/2403 (ASX: AON 31<sup>st</sup> January 2017). The conceptual magnetic targets showed strong features analogous to significant known magmatic nickel-copper sulphide deposits and were prioritized for follow-up with ground geophysics.

Given the potential density contrasts of magmatic intrusions related to mineralisation, gravity surveys are considered an appropriate geophysical method. Following the discovery of the Nova deposit, ground gravity played a key role in the discovery of the blind Bollinger deposit down plunge of the main Nova orebody.

Apollo recently completed a 400m by 400m ground gravity survey over the target area, with an infill 200m by 200m gravity survey completed over two areas (Figure 2). The two areas, designated A1 and A2, have amplitudes around 3 mGal, consistent with that expected for potentially nickel-copper sulphide mineralised ultramafic/mafic intrusives, similar to that hosting the Nova deposit.

The gravity targets are considered to represent deeper features, located below Tertiary and Cretaceous sedimentary cover potentially 50-100m thick. Apollo has indicated that ground-based electromagnetic ("EM") surveys are planned over targets A1 and A2.



**Figure 2. Tenement E28/2403, Residual Bouguer Anomaly map.**  
Image is sun-shaded from the north and has a linear colour stretch. Contour interval is 0.2 mGal.

## FIELD ASSESSMENT OF HELITEM ANOMALIES

Apollo's comprehensive review of all available data within the Orpheus JV Project identified a number of priority targets that required ground follow-up, including two airborne electromagnetic ("HeliTEM") anomalies that had not been previously identified.

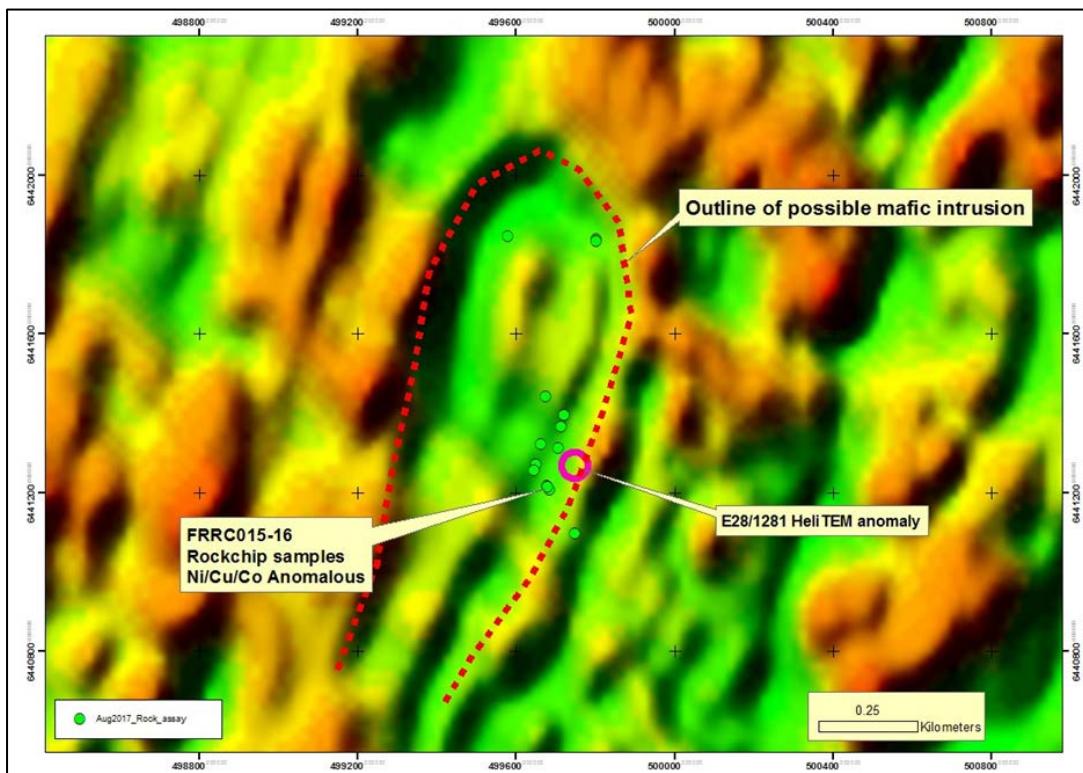
HeliTEM anomaly '**1281\_HeliTEM**' was identified through a re-interpretation of the airborne electromagnetic (HeliTEM) survey undertaken by Enterprise over E63/1281 in March 2013. The target is situated 10km to the northeast of the known magmatic nickel-copper sulphide mineralisation at the Plato Prospect, in a structural setting similar to that of other significant nickel-copper sulphide deposits.

Field geological mapping identified outcrops of meta-gabbro, quartzite, intermediate to felsic gneiss, ironstone and very leached sub-crop near the anomaly. Rock chip samples were collected with two rock chip samples reporting >1,000 ppm Ni (Table 1 and Figure 3). Significant results are included in Table 1 below.

Apollo noted that the elevated nickel, copper and cobalt values in these two rock samples were far higher than other iron rich rock samples within the area, suggesting the elevated metals may indicate a sulphide component rather than iron or manganese scavenging.

**Table 1. Significant Rock Chip Results from sampling near 'Target 1281\_HeliTEM'.**

Sample Number	Easting (m)	Northing (m)	Ni (ppm)	Cu (ppm)	Co (ppm)	Fe (%)
FRRC015	499677	6441216	1,102	272	799	45.35
FRRC016	499680	6441214	1,134	163	892	24.40



**Figure 3. Tenement E63/1281, HeliTEM anomaly 'Target 1281\_HeliTEM' and rock chip sample locations on TMI\_RTP magnetic image.**

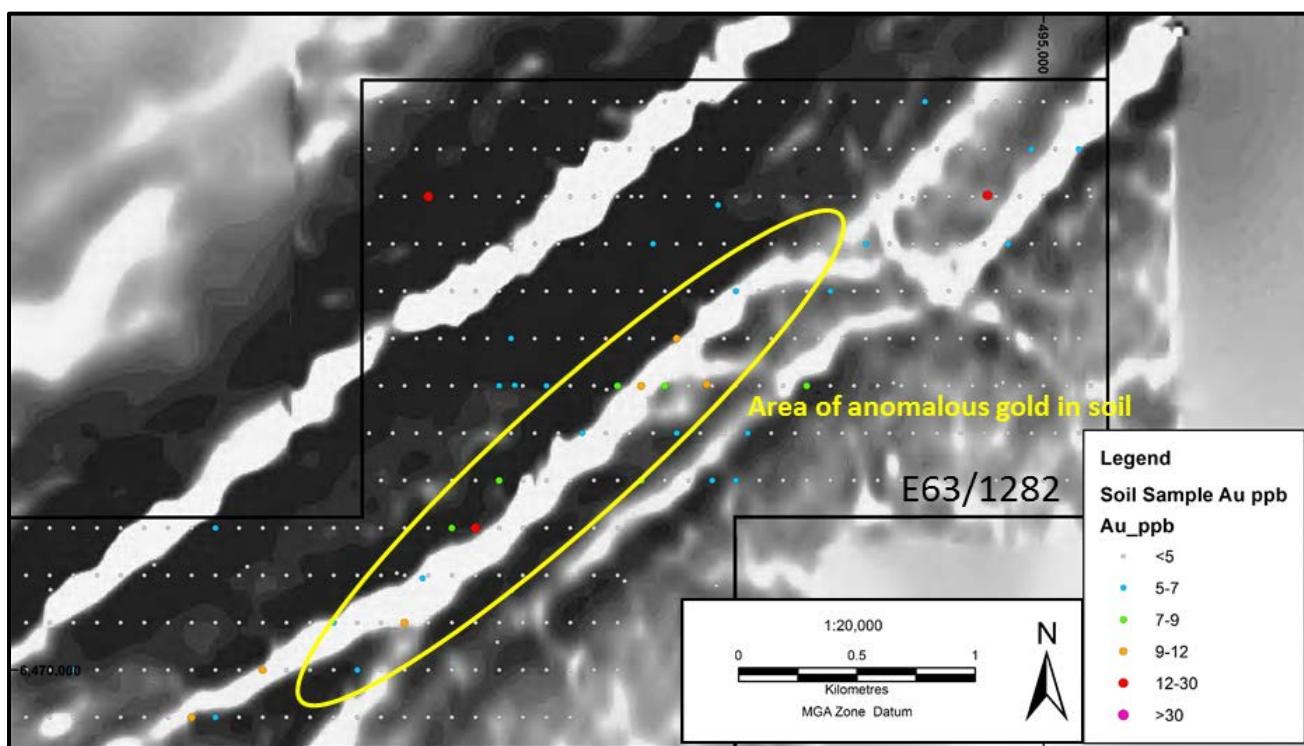
A second HeliTEM anomaly '1282\_HeliTEM' was identified, coincident with the intersection of the Fraser Range metamorphic complex and the Snowy Dam Formation, on E63/1282 (Figure 5). The target was inspected in the field and found to be entirely under cover.

Ground based electromagnetic surveys are proposed over the two HeliTEM targets in the coming months.

### **GOLD SOIL ANOMALY CONFIRMED OVER MAGNETIC FEATURE**

In 2012, Enterprise completed first-pass and infill soil sampling over a number of areas in the Fraser Range including E63/1282. The infill sampling was conducted on a 100m x 200m grid with samples assayed for a multi-element suite including gold, using aqua regia with ICPMS finish.

The sampling defined a broad zone of anomalous gold associated with a north-east trending magnetic feature (Figure 4). The maximum reported gold value was 13 ppb.

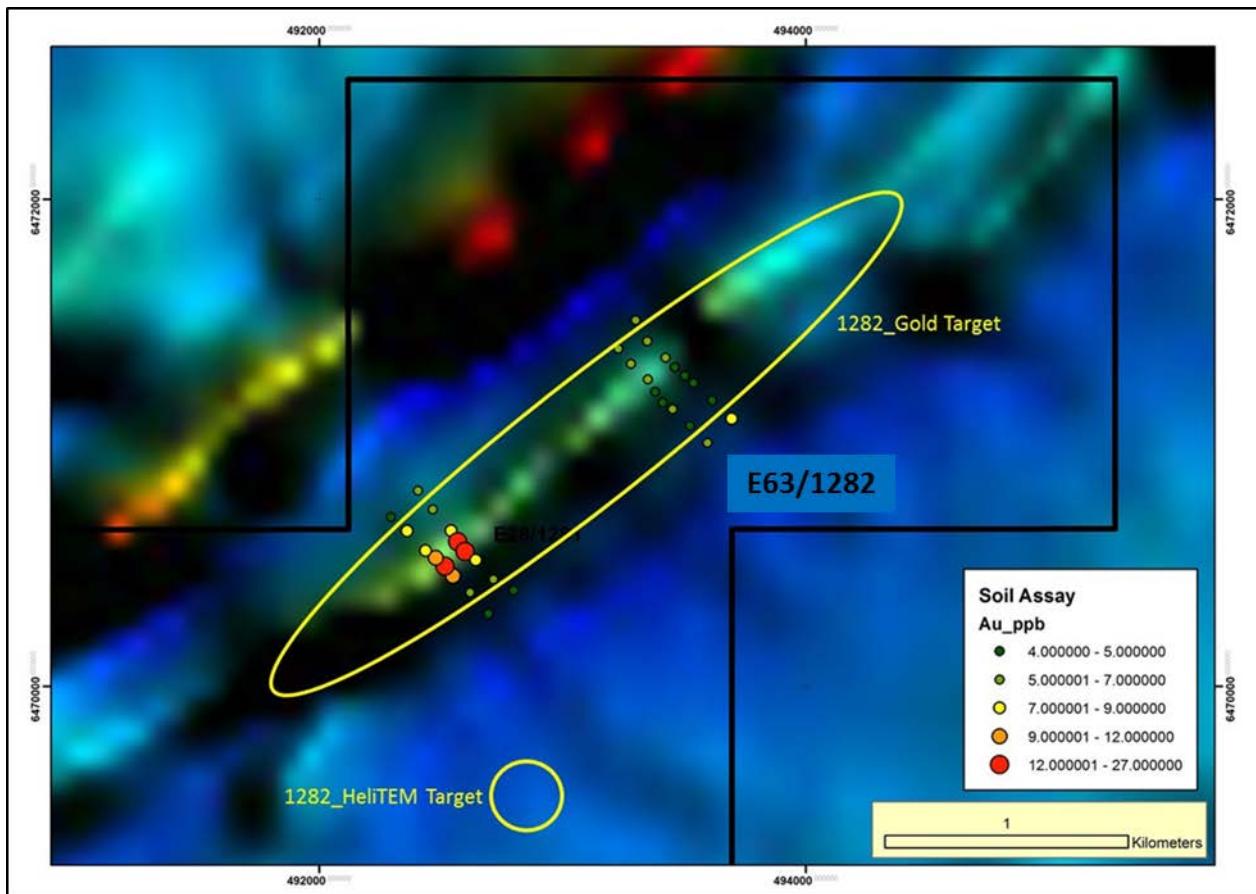


***Figure 4. Tenement E63/1282, Enterprise Metals Limited, Gold Soil Sampling Results on Regional TMI\_RTP\_VD1 magnetic image.***

Apollo completed four soil traverses over the magnetic feature within E63/1282 to follow-up the anomalous Enterprise results.

The Apollo soil sampling confirmed the original soil anomaly, with sample peak results of 27 ppb Au (Figure 5). Apollo reported a weak correlation of copper with gold, the significance of which is unknown at this stage.

Further work is planned for the area to determine the best locations for drill testing.



**Figure 5. Tenement E63/1282, HeliTEM anomaly 'Target 1282\_HeliTEM' and Gold in soil anomaly 'Target 1282\_Gold' on Regional TMI RTP magnetic image.**

#### ABOUT THE FRASER RANGE PROJECT

Enterprise holds a strategic and prospective tenement package over the southern Fraser Range area, to the south of Sirius Resources NL's 2012 discovery of the Nova nickel-copper massive sulphide deposit.

In mid-2014, the Company's maiden drilling program at Plato intersected disseminated and "blebbly" nickel-copper sulphide mineralisation over significant widths within rocks which were originally cumulate mafic rocks. Subsequently, in the latter half of 2014, 33 high powered fixed loop EM surveys were undertaken over various anomalous areas identified from the Company's earlier geochemical, geological and geophysical work.

In order to focus the Company's exploration efforts on Doolgunna in 2015/16, the Company entered into a sale and joint venture agreement with Apollo Minerals Ltd (ASX:AON) over the Fraser Range tenements. Apollo purchased a 70% interest in the tenements and must carry Enterprise's 30% interest to completion of a bankable feasibility stage (BFS) on any discovery. If a BFS is not completed or Apollo withdraws, it must return 100% ownership of the tenements to Enterprise.

## **ABOUT ENTERPRISE METALS LTD**

Enterprise Metals Limited (ASX: ENT) was incorporated in January 2007 as a public company and was admitted to the ASX on 20<sup>th</sup> June 2007. Enterprise has 315,133,979 million Shares on issue, and the present market capitalisation is approximately \$6 million.

The Company has four main gold/ base metal projects in Western Australia, two of which are funded by partners. The Doolgunna Project is managed and operated by Sandfire Resources NL under a farm-in agreement dated 12<sup>th</sup> October 2016. The Fraser Range Project, in which Enterprise holds a 30% interest free carried to bankable feasibility stage, is managed and operated by Apollo Minerals Limited, which holds a 70% interest. The Darlot and Yalgoo Projects have gold and base metal targets that require drill testing.

Enterprise also holds a 7.9% interest (12 million shares) in **Alto Metals Limited** (ASX: AME, or “Alto”). On 23<sup>rd</sup> June 2016 Alto announced that it had acquired a 100% interest in Sandstone Exploration Pty Ltd, the holder of tenements covering the 723km<sup>2</sup> and the majority of the Archaean Sandstone Greenstone Belt in Western Australia, which has produced over 1.3 million ounces of gold. Enterprise’s 12 million Alto shares have a current fair market value of ~\$1.0M based on the AME share price of 8.4 cents/share at market close on 19 October 2017.

### **Further information, contact:**

Dermot Ryan  
Managing Director  
+61 8 6381 0392

Email: [admin@enterprisemetals.com.au](mailto:admin@enterprisemetals.com.au)

### ***Competent Persons statement***

*The information in this report that relates to Exploration Results is based on information compiled by Mr Dermot Ryan, who is an employee of Xserv Pty Ltd and a Director and security holder of the Company. Mr Ryan is a Fellow of the Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Ryan consents to the inclusion in this report of the matters based on information in the form and context in which it appears.*

### ***References***

ASX: AON Quarterly Activities Report, 31<sup>st</sup> January 2017  
ASX: ENT Announcement, 20<sup>th</sup> November 2012.

**JORC Code, 2012 Edition – Table 1 report****27 October 2017 – Fraser Range Project****Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Rock samples were collected as grab/chip samples from outcrops, soil samples were collected by digging 20-30cm and sieving sample from bottom of hole using a 2mm sieve, and a ground based gravity survey was conducted on a 400 x400m grid, with 200 x 200m infill over areas of interest, as part of regional exploration undertaken at the Orpheus JV Project in the Fraser Range province in south eastern Western Australia.</li> <li>Sample size of rockchip samples varied from 1kg-2kg in weight. The Apollo soil samples were sieved to -2mm and a 200-300g sample was taken of the sieved material.</li> <li>GPS coordinates of rock and soil locations were captured using a handheld GPS with +/- 4m accuracy.</li> <li>Gravity survey locations were measured with the Hi Target V100 GNSS DGPS system and post processed to achieve 5cm vertical and horizontal accuracy.</li> <li>Approximately 6.5% of the gravity survey was repeated to provide a statistical analysis of the accuracy of the observed gravity data and GPS elevations.</li> </ul> <p><b>ROCK SAMPLES</b></p> <ul style="list-style-type: none"> <li>Rock samples were collected from outcrops with sample sizes approximately 1-2kg.</li> <li>The rock samples were submitted to Minanalytical Laboratories in Kalgoorlie, WA for multi-element analysis.</li> <li>Samples were crushed then dried and pulverised so that &gt;85% of sample is -75um.</li> <li>Multi-element analysis was completed using MA40MS + OES (45 elements using a four-acid digest) and FA50AAS (Gold – 50g sample, AAS finish) techniques.</li> </ul> <p><b>SOIL SAMPLES</b></p> <ul style="list-style-type: none"> <li>Soil samples were collected by digging 20-30cm and sieving sample from bottom of hole using a 2mm sieve. A 200-300g sample was taken of the -2mm sample and submitted to Minanalytical Laboratories in Kalgoorlie, WA for multi-element analyses.</li> <li>Samples were dried and then pulverised to that &gt;85% of samples is -75um.</li> <li>Multi-element analysis was completed using MA40MS + OES (45 elements using a four-acid digest) and FA50AAS (Gold – 50g sample, AAS finish) techniques.</li> <li>A quartz blank was inserted every 20 samples for QAQC.</li> </ul> <p><b>GRAVITY SURVEY</b></p> <ul style="list-style-type: none"> <li>A ground based gravity survey was conducted on a 400m by 400m grid, with 200m by 200m infill over areas of interest. The gravity survey was completed by Atlas Geophysics Pty Ltd using Scintrex CG5 gravity meters with accuracies better than 0.01 mGal.</li> <li>Position and elevation data were acquired with the HiTarget V100 GNSS DGPS system operating in a post-processed mode to give horizontal and vertical accuracies better than 5cm. GPS control points were established using the AUSPOS processing system.</li> <li>Approximately 6.5% of the gravity survey was repeated to provide a statistical analysis of the accuracy of the observed gravity data and GPS elevations.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>No drilling results reported.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>No drilling results reported.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>No drilling results reported.</li> <li>Rock samples were described (lithology, mineralogy, texture, structures) with details entered into an Excel based geological database.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>No drilling results reported.</li> <li>Rock and soil samples were transported to the external sample preparation/assay laboratory in Kalgoorlie. Samples were dried, crushed to -2mm and then pulverised in a low Chrome steel bowl. Samples were then split and a split sent for analysis.</li> <li>Sample sizes and preparation techniques employed are considered to be appropriate for the generation of early stage exploration results.</li> <li>No sub-sampling was applied into sample batches before arriving to the external laboratory.</li> <li>The external laboratory's QA/QC procedures involved the use of standards and blanks which are inserted into sample batches at a frequency of approximately 5%.</li> </ul>

Criteria	Commentary
Sub-sampling techniques and sample preparation (continued)	<ul style="list-style-type: none"> <li>No additional QA/QC was conducted on the rock chip samples other than the standard laboratory QA/QC. This was due to the regional nature of the sampling.</li> <li>A quartz blank was inserted every 20 samples in the soil samples.</li> <li>Sample size was approximately 1kg – 2kg in weight for the rock samples and 200-300g in the soil samples.</li> <li>No field duplicates were collected for the samples.</li> <li>Given the early exploration stage nature of this work the sample sizes are deemed appropriate.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>Samples were submitted to Minanalytical laboratories in Kalgoorlie, Western Australia for multielement analyses. Multi-element analysis was completed using MA40MS + OES (45 elements using a four-acid digest) and FA50AAS (Gold - 50g sample, AAS finish) techniques. These techniques are considered total.</li> <li>Atlas Geophysics acquired routine repeat reading throughout the survey (6.5% of survey), which was statistically analysed. Repeat gravity readings were within +/- 0.05mGal (SD = 0.02 mGal and elevations within +/- 7.7cm (SD = 3cm). Data was sent to an independent geophysical consultant (Kelvin Blundell) on a daily basis for QA/QC.</li> <li>The external laboratory used maintains their own process of QA/QC using standards, sample duplicates and blanks.</li> <li>Quartz blank samples were submitted every 20 samples for the soil samples by Apollo Minerals.</li> <li>Review of the internal and external laboratory quality QA/QC reports, has shown no sample preparation issues, acceptable levels of accuracy and precision and no bias in the analytical datasets.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>No drilling results reported.</li> <li>All primary data is recorded in specifically designed templates. Assay data from the external laboratory was received in spreadsheets and downloaded directly into an Excel based Geological Database.</li> <li>No adjustments have been made to the assay data.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>GPS coordinates of rock and soil sample locations were captured using a handheld GPS with +/- 4m accuracy.</li> <li>Gravity survey locations were measured with the Hi Target V100 GNSS DGPS system and post processed to achieve 5cm vertical and horizontal accuracy. GPS control points were established using the AUSPOS processing system.</li> <li>Sample locations were collected and reported using the GDA94_MGAz51 grid system.</li> <li>Locations were measured with the Hi Target V100 GNSS DGPS system and post processed to achieve 5cm vertical and horizontal accuracy. Final data locations were transformed into the GDA94/MGA51 grid projection, with elevations delivered in both GDA94 Ellipsoid and AHD heights. GNSS control was established using AUSPOS and multiple submissions of static GNSS data collected over the course of the survey. Gravity control was established using multiple ABA ties to existing Atlas control stations already tied to the Australian Fundamental Gravity Network.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Rock samples were randomly collected i.e. not on a fixed grid pattern.</li> <li>Soil samples were taken on a 100m or 50m sample spacing along lines.</li> <li>Gravity line and station spacing was initially 400m x 400m. After the identification of areas of interest, infill data were acquired on a 200m x 200m grid.</li> <li>The data spacing is not considered sufficient to assume geological and grade continuity, and will not allow the estimation of Mineral Resources.</li> <li>No compositing of samples in the field was undertaken.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>The location within the Fraser Range province where the gravity survey was undertaken includes an area with SW-NE magnetic grain, 3D and cross-cutting magnetic bodies, and N-S faults. The gravity survey grid is unbiased.</li> <li>No drilling results were reported.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>All gravity data is digitally stored by the contractor and geophysical consultant.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>Gravity data has been independently checked by geophysical consultant Kelvin Blundell.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>The Orpheus Project is a joint venture between Apollo Minerals Limited (70%) and Enterprise Metals Limited (30%).</li> <li>The exploration results reported in this announcement relate to Exploration Licences E28/2403, E63/1281 and E63/1281.</li> <li>Under the terms of the JV agreement, Apollo Minerals is required to sole fund all activities on the Project until completion of a Bankable Feasibility Study.</li> <li>Tenure in the form of Exploration Licences with standard 5-year expiry dates which may be renewed.</li> <li>There are no known impediments to obtaining a licence to operate in this area.</li> </ul>
Exploration Done by Other Parties	<ul style="list-style-type: none"> <li>Previous regional exploration on the project was undertaken by various companies and included, geophysical surveys, geochemical surveys, rock sampling and RC and diamond drilling.</li> <li>Historical geophysical surveys included an airborne (helicopter) electromagnetic survey and ground based magnetic, resistivity and gravity surveys. Geochemical surveys included soil sampling.</li> <li>A detailed assessment of the historic data is in progress. No significant issues with the data have been detected to-date.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>No mineralisation has been confirmed to-date but soil sampling results suggest the presence of a gold fertile mineralising system on E63/1282.</li> <li>Some rock samples collected on E63/1281 may be suggesting the presence of a magmatic nickel-copper sulphide mineralising system.</li> <li>Gravity anomalies on E28/2403 have amplitudes consistent with that expected for potentially nickel-copper sulphide mineralised ultramafic/mafic intrusives, similar to that hosting the Nova nickel-copper deposit.</li> <li>Further exploration work is required to confirm these observations.</li> </ul>
Drill hole information	<ul style="list-style-type: none"> <li>No drilling results reported.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>No high-grade cuts have been applied to the rock or soil sample data reported.</li> <li>No aggregation has been applied to the rock sample data reported.</li> <li>No metal equivalent values are used.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>No drilling results reported.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>Appropriate diagrams are included in the main body of this release.</li> </ul>
Balanced Reporting	<ul style="list-style-type: none"> <li>Reporting of the rock, soil and gravity results is considered balanced.</li> </ul>
Other substantive exploration work	<ul style="list-style-type: none"> <li>No additional meaningful and material exploration data has been excluded from this report that has not previously been reported to the ASX.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>Further regional exploration related work planned for the Orpheus Project includes ongoing review of the historical exploration datasets and systematic follow-up geological mapping, rock sampling and geophysical surveys e.g. ground based EM surveys, over identified prospects and exploration targets.</li> <li>These diagrams are included in the main body of this release.</li> </ul>