

18 February 2015



Ground EM Survey Detects Anomalies at Fraser Range Project, WA

ASX Code: ORN

Issued Capital:

Ordinary Shares: 306M

Options: 89M

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Highlights:

- **Late channel anomalies indicate potential bedrock conductors.**
- **Follow up fixed loop survey to be executed, followed by drill testing of bedrock conductors.**

Orion Gold NL (ASX: **ORN**) is pleased to advise that it has identified significant new electro-magnetic (EM) targets from the recently completed ground EM survey carried out at its **Fraser Range Nickel-Copper Project** in Western Australia.

The moving-loop EM survey has detected a discrete, late channel anomaly to the west of the HA2 magma chamber (named PEN7; Figure 1) as well as a broad zone of anomalism (PEN8) between the Pennor and HA2 magma chambers.

These anomalies are interpreted to be potential bedrock conductors, which will be further resolved with a follow-up, fixed loop EM survey anticipated to start during March 2015. The fixed loop survey will also refine the depth and orientation of the conductors.

It is noted that these EM anomalies may be associated with different geological settings based on interpretation in conjunction with other geophysical data (e.g. aeromagnetics and gravity as shown in Figure 1). The discrete anomaly at PEN7 is associated with a magnetic and gravity high, whereas the anomaly in PEN8 extends into a broad, diffuse zone of anomalism surrounding the margin of the magma chamber (as interpreted from magnetic lows in the aeromagnetic data).

The magnetic and gravity high hosting PEN7, and the western portion of PEN8, is interpreted as a prominent structural feature. Given that this feature extends between the separate magma chambers, the Company is considering the probability this feature represents a possible feeder channel between magma chambers.

In 2014, the Company drilled a number of shallow aircore drill holes to test this feature. This drilling intersected mafic and ultramafic intrusives. Petrographic examination of samples from these drill holes identified cumulate textures in the ultramafic rocks in drill-hole HA2RP001 (refer Figure 1 and ASX Release 15 July 2014), which is located adjacent to PEN7. The prospectivity of the EM anomalies is enhanced by their proximity to these prospective lithologies.

As discussed in the ASX Release of 15 July 2014, cumulate textures are associated with nickel-copper deposits which are formed by the early crystallisation within the low level magma chambers and extensions into feeder zones linking to higher level chambers. A re-assessment of geological and geochemical data from shallow drilling in the area of the anomalies is currently underway in conjunction with the results of the EM survey.

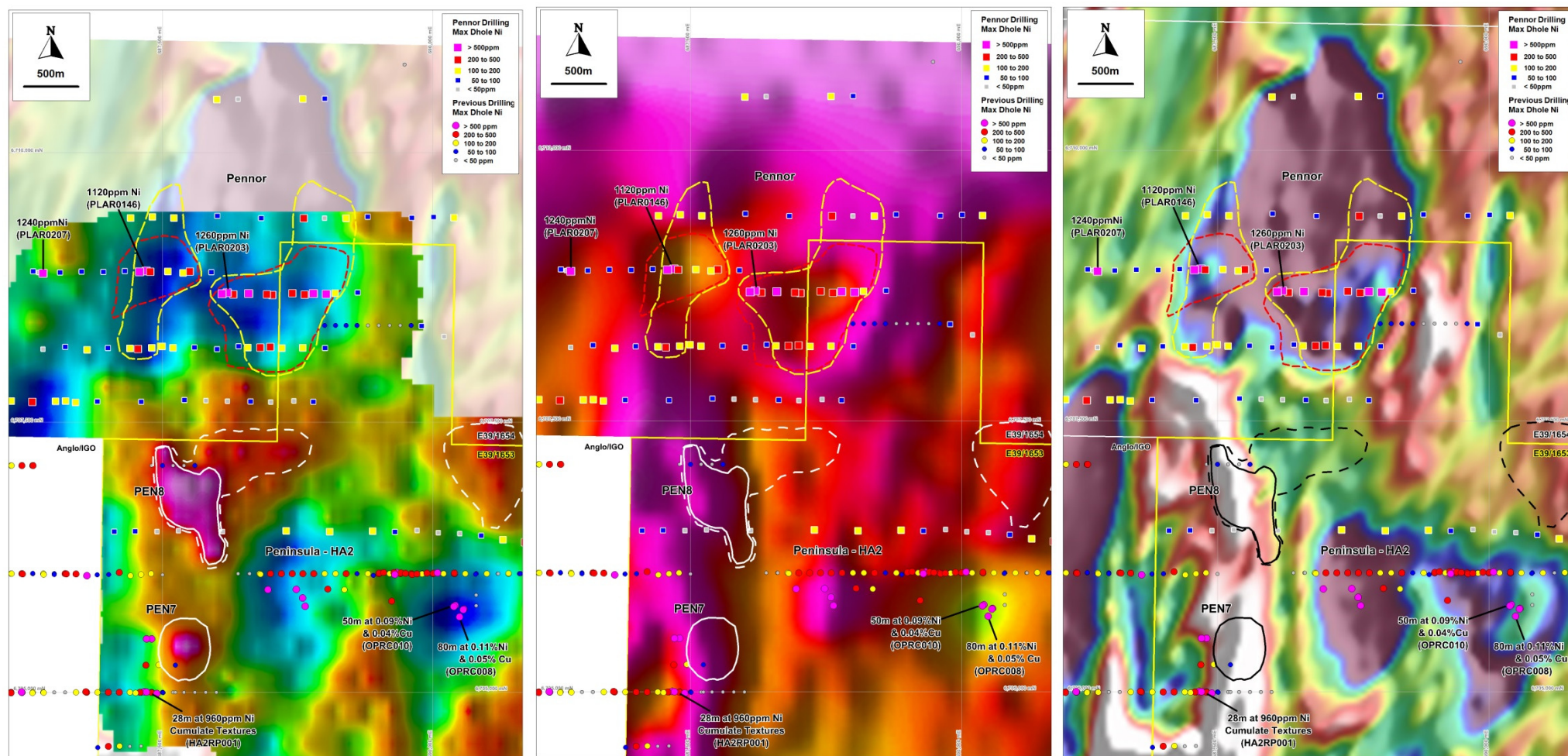


Figure 1. Plan showing ground EM anomalies PEN7 and PEN8 overlaid on ground EM data from recent Pennor survey and 2013 HA2 survey (channel 32, LHS), ground gravity data from 2014 survey (centre) and aeromagnetic data (RTP, RHS). Drilling results from Pennor and HA2 also shown (refer ASX releases 17 March 2014 and 17 September 2014) as well as areas of interest delineated by Pennor drilling (red and yellow outlines; refer ASX release 17 September 2014).

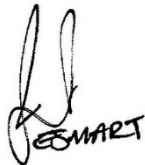
The survey also identified polarisation anomalies within the Pennor magma chamber similar to those seen within the HA2 magma chamber prior to the successful RC drilling campaign in 2014 (refer ASX release 17 March 2014). These polarisation effects are strongest in the south-west and south-east of the magma chamber, with the centres located between the lines of drilling, and are also coincident with the target zones identified from geological and geochemical features (outlined on Figure 1). Encouragingly, the best nickel results from the shallow drilling program were returned from drill-holes close to these centres. The Company is currently revisiting interpretations of geophysical data in these areas.

Follow Up Program and Funding

As announced in the ASX Release of 17 February 2015 the Company is now well funded to advance follow up programs on both Fraser Range Ni-Cu Projects and the Connors Arc Epithermal Au-Ag Project following receipt of a Research and Development ('R&D') Tax Incentive rebate from the Australian Taxation Office of \$1.22 million.

In addition, the Company has two funding grants available under the Western Australian Government's Exploration Incentive Scheme whereby the Government will match direct drilling costs at the Peninsula Project dollar-for-dollar, up to the amount of the grant, subject to the satisfaction of certain conditions. Both grants are for \$0.15 million, with the first grant to be used by 30 June 2015 and the second to be used by 31 December 2015.

Orion is finalising arrangements to undertake a fixed loop EM survey in order to accurately model the depth and geometry of the anomalies and drill test bedrock conductors as soon as possible.



Errol Smart
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About Orion

Orion Gold is focused on acquiring, exploring and developing large tenement holdings or regional scale mineral opportunities in world-class mineral provinces. The Company has acquired quality projects in proven mineral provinces, including a substantial tenement holding in the Albany-Fraser Belt, host to Australia's two most significant discoveries of the last decade (the Tropicana Gold Deposit and the Nova Nickel-Copper-Cobalt Deposit). Part of this tenement holding was acquired from entities associated with Mark Creasy who is now a significant shareholder in Orion. The project area was previously explored by Western Areas Ltd who identified mafic-ultramafic intrusives within the project area as well as nickel-copper-cobalt-PGE anomalies. Orion's intensive, systematic exploration programs have successfully defined 23 targets to date by a combination of geological, geochemical and geophysical methods.

The Company has also secured a large tenement package on the Connors Arc in Queensland, where a significant intermediate sulphidation, epithermal gold and silver system has been identified at Aurora Flats. The project lies between the well known Cracow and Mt Carlton epithermal deposits. The Company is increasing its focus on this project, following promising reports from expert consultants.

Additionally, the Company has an interest in the Walhalla Project located in Victoria, where it is focusing on exploration for Copper-PGE and has entered into an agreement with A1 Mining regarding the gold rights on the tenements.

The Company has an experienced management team with a proven track record in exploration, development and adding shareholder value.

Competent Persons Statement

The information in this report that relates to Exploration Results at the Fraser Range Projects complies with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("JORC Code") and is based on information compiled by Mr Bill Oliver, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Oliver is the Technical Director of Orion Gold NL and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the JORC Code. Mr Oliver consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears. The Exploration Results are based on standard industry practises for drilling, logging, sampling, assay methods including quality assurance and quality control measure as detailed in Appendix 1.

Disclaimer

This release may include forward-looking statements. These forward-looking statements are based on management's expectations and beliefs concerning future events. Forward-looking statements inherently involve subjective judgement and analysis and are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Orion Gold NL. Actual results and developments may vary materially from those expressed in this release. Given these uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. Orion Gold NL makes no undertaking to subsequently update or revise the forward-looking statements made in this release to reflect events or circumstances after the date of this release.

Appendix 1: The following tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of Exploration Results.

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Ground electromagnetic surveys are industry standard geophysical techniques in exploration for magmatic nickel-copper deposits. The moving loop technique was used for this survey as the orientation of potential mineralised bodies was not known. The area and depth targeted by these surveys was planned based on previous drilling and survey results.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<ul style="list-style-type: none"> No drilling results presented so not applicable.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> No drilling results presented so not applicable.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate 	<ul style="list-style-type: none"> No drilling results presented so not applicable.

Criteria	JORC Code explanation	Commentary
	<p>Mineral Resource estimation, mining studies and metallurgical studies.</p> <ul style="list-style-type: none"> Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> No drilling results presented so not applicable.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. 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. 	<ul style="list-style-type: none"> Moving loop ground EM survey carried out by Outer Rim Exploration using a 300m x 300m single turn loop, 100amp HPTX transmitter, Smartem 24 and 3 component B field sensor ZXY (fluxgate). Time base/Frequency = 1Hz, 0.5msec ramp.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> No drilling intersections are presented so not applicable. Data collected on site and validated by geophysical technician daily. Data (raw and processed) sent to consultant geophysicist for review and quality control. Further processing of data carried out by the Company's consultant geophysicist.
Location of	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and 	<ul style="list-style-type: none"> Station locations have been located using handheld GPS with an accuracy of

Criteria	JORC Code explanation	Commentary
data points	<p>down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</p> <ul style="list-style-type: none"> • Specification of the grid system used. • Quality and adequacy of topographic control. 	<p>+/- 5 metres which is acceptable for this stage of the project.</p> <ul style="list-style-type: none"> • No drilling was carried out so no downhole surveys were carried out. • Co-ordinates are presented in MGA94 Zone 51. • Topographic control is based on topographic data derived from public data.
Data spacing and distribution	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied. 	<ul style="list-style-type: none"> • Survey carried out using 300m spaced lines, 100m spaced stations.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> • Survey carried out on lines oriented interpreted intrusive contacts.
Sample security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • No drilling results presented so not applicable.
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • No audits or reviews have been carried out at this stage.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> • Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> • E39/1653 is 80% owned by Orion Gold NL. • E39/1654 is 70% owned by Orion Gold NL. • Located on Vacant Crown Land.
Exploration done by other	<ul style="list-style-type: none"> • Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> • Tenement and surrounding area was most recently explored by Western Areas (including a period where a joint venture was formed with Placer Dome

Criteria	JORC Code explanation	Commentary
parties		<p>Australia) with activities including aeromagnetic survey and RAB/Aircore/RC drilling.</p> <ul style="list-style-type: none"> Previous explorers in the region include Mineral Search & Development (1970-1972), Payne Associates (1970-1972), Amax Exploration (1970-1972), Glendale Exploration (1970-1971), Elmina Mining (1986-1991), Tulloch-MIM Holdings (1994-1997), Imperial Mining NL/Jason Mining (1994-1996). Exploration was also carried out by the BMR on behalf of the Federal Government (regional magnetic and gravity surveys).
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Peninsula Project is located in the northern portion of the Proterozoic aged Albany-Fraser mobile belt. The Project is underlain by the Fraser and Biranup Zones of the Orogen as well as intrusive bodies which have been referred to as the Plumridge Complex. The target is Ni-Cu-PGE mineralisation hosted within mafic intrusions analogous to the Nova Ni-Cu-Co Deposit (WA), the Voiseys Bay Deposit (Canada) and the Thompsons Bay Deposit (Canada).
Drill hole Information	<ul style="list-style-type: none"> <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> <ul style="list-style-type: none"> <i>easting and northing of the drill hole collar</i> <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> <i>dip and azimuth of the hole</i> <i>down hole length and interception depth</i> <i>hole length.</i> <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> 	<ul style="list-style-type: none"> No drilling results presented so not applicable.
Data aggregation methods	<ul style="list-style-type: none"> <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> <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> <i>The assumptions used for any reporting of metal equivalent values</i> 	<ul style="list-style-type: none"> No drilling results presented so not applicable.

Criteria	JORC Code explanation	Commentary
	<i>should be clearly stated.</i>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> No drilling results presented so not applicable.
<i>Diagrams</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All relevant geophysical and geochemical data to interpret EM results are shown on Figure 1. No drilling results presented so not applicable.
<i>Balanced reporting</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No drilling results presented so not applicable. Results from entire EM survey shown on Figure 1.
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Company's previous ASX releases have detailed exploration works including drilling by Orion as well as previous explorers, geological mapping, results of airborne and ground EM surveys and preliminary results from ground gravity surveys.
<i>Further work</i>	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> The Company plans to follow up with deeper drilling to test anomalous results returned from assays or other targets identified in drilling (e.g. sulphides). Drilling in the bedrock beneath anomalous zones will need to be undertaken to establish the true nature of the mineralisation. Fixed loop EM survey to be undertaken as referred to in this ASX announcement.