

# SIGNIFICANT UPGRADE TO JORC EXPLORATION TARGETS Garnet Skarn Deposit, Idaho

AVM has developed new JORC Exploration Targets that demonstrate the increased economic potential of the Garnet Skarn Deposit. Recent exploration data and a historical technical review have allowed the Company to increase existing exploration targets for the Garnet Skarn Deposit. A new mineralisation zone has been established across the Property based on disseminated copper mineralisation in project units. The upgraded mineralisation target zone increases exploration potential in previously unexplored property sections.

#### **HIGHLIGHTS**

- 20Mt-30Mt @ 0.7% Copper defined at Garnet Skarn Deposit
  - New Mineralisation Trend Covers 26% of the entire project
  - 4 new drill targets have been identified inside the project boundary
- Surface Skarn Outcrops within AVM property boundaries confirm Skarn mineralisation potential at depth
- New Geological interpretation identified potential skarn rafts from surface to depth
- Copper mineralisation within the Gamet Project area is found in the following:
  - Quartz veins
  - Dissemination in breccias (brecciated and fractured diorite intrusives generally in contact with skarns)
  - Skarns (most abundant)
- An exploration target zone 4 kilometres long by 0.5 kilometres wide has been defined.

#### Commenting on the exploration program, Advance Chief Executive Officer Frank Bennett said:

"Upgraded exploration targets and reevaluated current and historical exploration data have allowed AVM to assess the Garnet Skarn deposit through a new perspective. Using modelling technology to reassess the exploration data has led to a much larger deposit area covering the Garnet Skarn project. Current exploration targets only cover 15% of the Garnet Skarn deposit, which will likely increase with drilling results."

**Advance Metals (ASX: AVM)** is pleased to confirm the Company has established four new exploration targets supported by a larger mineralisation zone at the Garnet Skarn project (Figure 1). The interpretation for these target zones utilised all available data, including various geophysical and geochemical techniques, historical data, and a 3D subsurface geology model.

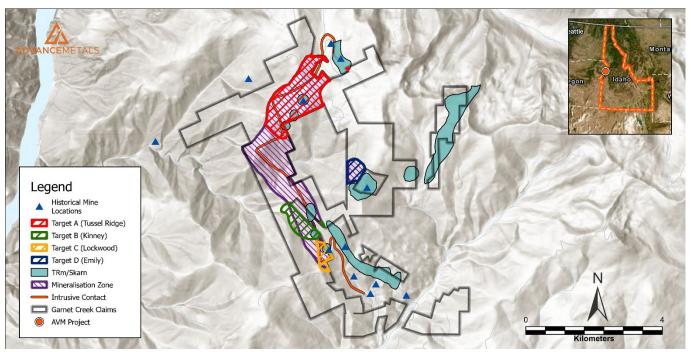


Figure 1: Garnet Creek Exploration Map

#### **Exploration Targets**

Advance Metals has established four exploration targets related to the Garnet Skarn deposit. Exploration targets are located within a larger zone of mineralisation, 4 kilometres long by 0.5 kilometres wide (Figure 2). This mineralisation zone follows an inferred contact between the quartz diorite (KJqd), skarns (S) and volcanics (TrS). Due to extensive soil cover and relatively few exposed outcrops, various geophysical and geochemical techniques were used to interpret the mineralisation zone. Geophysical exploration methods included an airborne magnetic survey evaluating the project area's Total Magnetic Intensity (TMI). A 971-count soil sampling program covered an exhaustive portion of the project. The geochemical results of these soils provided a unique picture of the copper leaching on the Property. Other Geochemical results were collected from rock and channel samples, highlighting copper concentrations as high as 21.24% Cu. Four exploration targets were established from these values, highlighting geochemical anomalies, geophysical anomalies, historical data, and field exploration research on property mineralisation and structure.

As part of this review, AVM personnel identified copper mineralisation in skarn outcrops across the Property. These outcrops were mapped and geochemically sampled. Each exposed skarn outcrop is located within a geochemical copper soil anomaly and follows lithological contacts with intrusive units such as the Deep Creek Quart Diortite Pluton (Kjqd). The current understanding of the skarn genesis is that the emplacement of the Deep Creek pluton created a halo of contact metamorphism, affecting the entire package of Palaeozoic rocks found on the Property, including the Seven Devils Volcanic Group. This

contact metamorphism would strongly impact the Martin Bridge Limestone (TRm) and create the skarn zonation witnessed on Property today.

Several additional Skarn outcrops were identified by the Anconda Mining Company and used to interpret the Company's current understanding of the subsurface lithology and structure. The historical results established additional mineralised skarn zones in exploration target areas such as Tussel Ridge (Target A) and Lockwood (Target C).

Copper mineralisation within the Project area is found in Quartz veins, dissemination in breccias, and exposed skarn. Skarns are the most extensively mineralised unit on the Property. They have the greatest potential for developing significant new copper resources. Within the 4 km by 0.5 km target zone, a minimum of four skarn zones have been identified, with more likely to be found pending further exploration (drilling, geophysics). Assuming similar depths (100m) and aerial extent within the target zone, it is not unreasonable to assume an exploration potential of 20 to 30 million tons of copper in the grade range of 0.3 % to 0. 7% range.

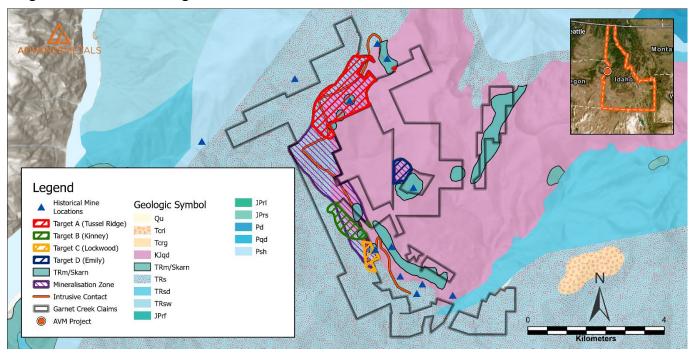


Figure 2: Garnet Creek Geological Map

#### **Historical Data**

The new exploration targets were developed on current and historical data. This included historical drilling data from the Anaconda Mining Company at the adjacent Peacock mine complex (Figure 3). The drilling program was a result of initial ore shipment assay results establishing copper concentrations of 20 to 40% copper per shipment until the turn of the 20<sup>th</sup> century. According to Anaconda, even low-production mines such as the Alaska mine proved profitable with high-grade copper ore.

The drilling program intercepted high-grade copper mineralisation in skarns and adjacent diorites ranging from 2% to 7% Cu. Historic copper production in the Peacock Mine complex averaged 7.7% Cu. Peacock Mine drilling reports mention a mineralised copper drill hole that featured a continuous section of copper sulphides for the length of the core (400 feet). This drill hole confirmed the presence of copper sulphides beneath the Quartz Diorite of the Deep Creek Pluton.

In addition to the historical drilling results of the Peacock Mine, disseminated copper sulphide mineralisation within the Deep Creek Pluton was confirmed through a 3,823 soil sampling program across the Property (Wise & Banghart, 1970). The survey returned copper concentrations for 81% of the samples. The Silver King Mining company identified three anomalous copper zones along a generalised northeast-trending fracture zone. This structural interpretation was confirmed by the Anaconda Mining Company, which also identified a general mineralisation trend through fractured zones along a northeast-trending thrust fault. The geochemical results confirmed copper mineralisation along a general northeast trending thrust fault system within the Seven Devils District.

Given the favourable lithology and proximity to adjacent disseminated copper projects, Garnet Skarn likely hosts disseminated copper within the Seven Devils volcanic package at depth. Based on geochemical results and historical drilling, it is thought that mineralised copper and the associated carbonate system at depth may be connected with the secondary copper sulphide systems seen below the Peacock Mine.

The Close USBM Report of 1982 (MLA 41-82) estimated that the Peacock mine complex contained 2.15 million tons of non-compliant copper mineralisation within skarn and adjacent mineralised diorite ranging from 0.51 % to 1.35% Cu. Drilling by Anaconda indicated mineralisation extending to a depth of approximately 100 m (328 ft). Combining this exploration potential with the historic production of 2.4 million tons gives a combined total of 4.55 million tons for the Peacock area.

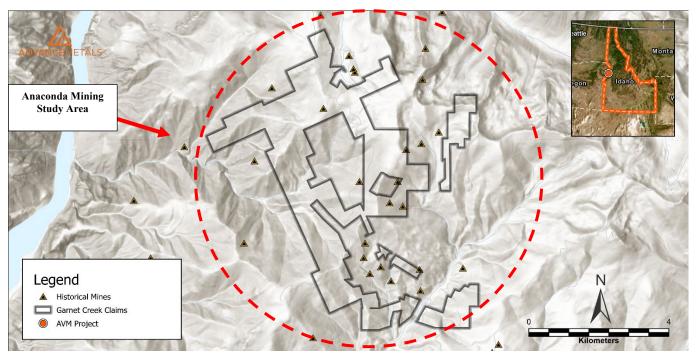


Figure 3. Anaconda Mining Company Area of Study

#### **3D Subsurface Modelling**

In order to support the Company's interpretation of updated exploration targets, a 3D model was constructed to view subsurface contacts and relationships of mineralised geological units such as the Martin Bridge Limestone (TRm) by combining data from the Anaconda Mining Company and current data collected by AVM (Figure 4).

In addition to historical drilling records, the model was integrated with AVM-collected rock, soil, and channel samples. This information has helped AVM identify geological contacts and mineralisation zones at depth (Figure 5). The information the Anaconda Mining Company provided has helped the Company assess the correlation between copper-bearing units and the surrounding host rock units at depth. Further analysis of the inferred data may reveal additional mineralisation zones or potential resource targets to guide future exploration of the Garnet Skarn project.

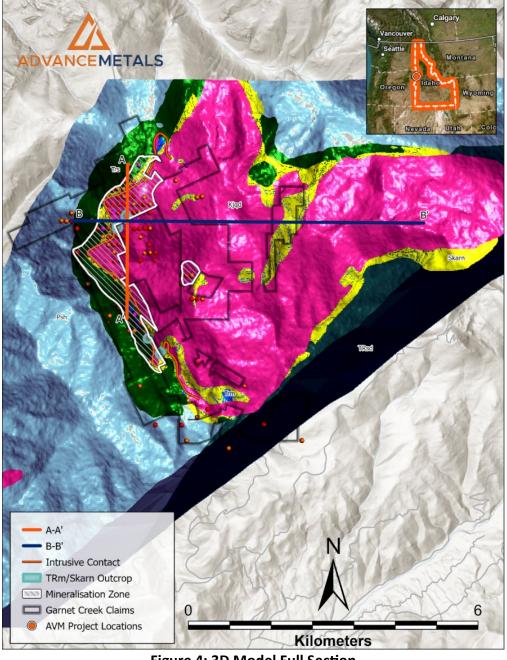


Figure 4: 3D Model Full Section

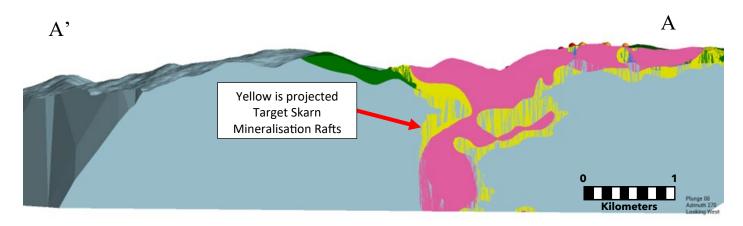


Figure 5. Cross Section A'-A

#### **Next Steps**

Using recent exploration data and an upgraded 3D model of subsurface geology, AVM has established new exploration targets for further exploration. Based on this information and an updated mineralisation target zone of 26% of the Property, AVM is seeking permits to establish a drilling program with the United States Forest Service. Once approved, the drilling program will confirm the geochemical and geophysical results collected by the Company and establish mineral resource potential for the Garnet Skarn project.

This market announcement has been authorised for release to the market by the Board of Advance Metals Limited.

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#### **About Advance Metals Limited**

Advance Metals Limited (ASX: AVM is a copper-focused exploration company with a world-class portfolio of copper growth projects in mining-friendly jurisdictions of the United States. We seek to maximise shareholder value through the acquisition, discovery, and advancement of high-quality metals projects in North America. The Company utilises the expertise of our North American exploration team to identify underexplored and undervalued high-grade copper projects with significant geological potential.

The Company has 100% ownership of the Garnet Skarn Deposit, the Augustus Polymetallic Project, and the Anderson Creek Gold Project. More details are available on AVM's website, www.advancemetals.com.au.



**AVM Project Locations** 

#### **Background**

The 100% owned Garnet Skarn Project property is located on the southeast margin of the Seven Devils Mountains in Adams County, westcentral Idaho, USA.

The Property is within the Seven Devils Mining District and is approximately 68 km (42 mi) northwest of the town of Council, within the Payette National Forest. The Property totals 1,022.6 hectares (2,527 acres). The Property consists of 147 lode claims.

The Company recently undertook an in-depth technical review of historical documentation to digitise relevant information and develop GIS exploration models utilising historical drilling records. The process involved utilising GIS modelling software, AI programs, satellite remote sensing, and geological and geophysical analysis of the project area.

Analysis of the results has found strong exploration potential at the Garnet Skarn Project.



#### **Previously Released Information**

These ASX announcements refer to information extracted from reports available for viewing on AVM's website, www.advancemetals.com.au, and announced on:

- 06.09.2021 "Historic Gold Assays Anderson Creek Gold Project"
- 16.01.2019 "Elko Coking Coal Project JORC Resource Increased to 303Mt"

AVM confirms it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of exploration targets, that all material assumptions and technical parameters underpinning the exploration targets in the relevant market announcements continue to apply and have not materially changed. AVM confirms that the form and context in which the Competent Person's findings were presented have not been materially modified from the original market announcements.

#### **Forward-Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices, or potential growth of the Company, are or may be forward-looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements.

The interpretations and conclusions reached in this announcement are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high they might be, make no claim for absolute certainty. Any economic decisions that might be taken on the basis of interpretations or conclusions contained in this report will therefore carry an element of risk, or conclusions contained in this report will therefore carry an element of risk.

#### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr. Jim Guilinger. Mr. Guilinger is a Member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc).

Mr. Guilinger is Principal of independent consultants World Industrial Minerals LLC. Mr. Guilinger has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking 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. Guilinger consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.



## JORC Code, 2012 Edition – Table 1 Augustus Polymetallic Project, Yavapai County, Arizona Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
	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 downhole gamma sondes, handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Not applicable.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Not applicable.
Sampling techniques	Aspects of the determination of mineralisation that are Material to the Public Report.	Not applicable.
	In cases where 'industry standard' work has been done, this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Not applicable.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit, or another type, whether the core is oriented and if so, by what method, etc.).	Not applicable.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Not applicable.



	Measures are taken to maximise sample recovery and ensure the representative nature of the samples.	Not applicable.
	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.	Not applicable.
	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.	Not applicable.
Logging	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Not applicable.
	The total length and percentage of the relevant intersections logged.	Not applicable.
	If core, whether cut or sawn, and whether quarter, half, or all core taken.	Not applicable.
Sub-sampling techniques and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc., and whether sampled wet or dry.	Not applicable.
	For all sample types, the nature, quality, and appropriateness of the sample preparation technique.	Not applicable.
	Quality control procedures adopted for all sub-sampling stages to maximise the representivity of samples.	Not applicable.
	Measures are taken to ensure that the sampling is representative of the in-situ material collected, including, for instance, results for field duplicate/second-half sampling.	Not applicable.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Not applicable.
Quality of assay data and laboratory tests	The nature, quality, and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Not applicable.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including	Not applicable.



	instrument make and model, reading times, calibrations factors applied and their derivation, etc.	
	Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	Not applicable.
Verification of	The verification of significant intersections by either independent or alternative company personnel.	<ul> <li>Exploration Targets were reviewed by Independent Consultants.</li> </ul>
sampling and assaying	The use of twinned holes.	Not applicable.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Not applicable.
	Discuss any adjustment to assay data.	Not applicable.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Sample location is based on GPS coordinates +/- 10 m.
	Specification of the grid system used.	<ul> <li>The grid system used to compile data was NAD83 UTM Zone 12N.</li> </ul>
	Quality and adequacy of topographic control.	<ul> <li>Topography control is +/- 10 ft (3 m).</li> </ul>
	Data spacing for reporting of Exploration Results.	Not applicable.
Data spacing and distribution	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.	<ul> <li>Data spacing is not sufficient to determine geological and grade continuity.</li> <li>Sampling was of a reconnaissance nature.</li> <li>No compositing of samples or results was applied.</li> </ul>
	Whether sample compositing has been applied.	Not applicable.
Orientation of data in	Whether the orientation of sampling achieves unbiased sampling	
relation to geological	of possible structures and the extent to which this is known,	Not applicable.
structure	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.	Not applicable.
Sample security	The measures are taken to ensure sample security.	Not applicable.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No external audits or reviews have been conducted to date. However, sampling techniques are consistent with industry standards.

### **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	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 parks, and environmental settings.	<ul> <li>Advance Metals controls 147 Federal Lode Claims covering an area of 2.526 acres.</li> <li>Annual claim maintenance fees are payable to the BLM by September 1 of each year. AVM paid initial staking fees in June 2022.</li> <li>The claims are 100% owned by Texas and Oklahoma Coal Company (USA) Inc (a 100% owned AVM subsidiary).</li> </ul>
	The security of the tenure held at the time of reporting and any known impediments to obtaining a licence to operate in the area.	<ul> <li>No impediments to holding the claims exist. To maintain the claims, an annual holding fee of \$165/claim is payable to the BLM.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The area was previously explored for by the Anconda Mining Company and various smaller operators.
Geology	Deposit type, geological setting, and style of mineralisation.	<ul> <li>The copper ore occurs within metamophrosed limestone/skarn contacts and dissmenated within the volcanic and intrusive project units.</li> <li>The occurrence can be characterised as a skarn deposit.</li> </ul>



Drill hole Information	A summary of all information material to the understanding of the exploration results, including a tabulation of the following information for all Material drill holes:	Not applicable.
	easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole downhole length and interception depth Hole length.	Not applicable.
	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.	Not applicable.
	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	No high-grade cutting.
Data aggregation methods	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.	No aggregation used
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents used
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.  If it is unknown and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Not applicable.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to, a	See Figures in the within this press release above.



	plan view of drill hole collar locations and appropriate sectional views.	
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results.	All results have been reported.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported, including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	All meaningful & material exploration data has been reported.
	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further mapping, grid sampling, and ground radiometric studies are planned to delineate potential drill targets.
Further work	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	There is not enough data for geological interpretations and drill planning at this time.

Note that JORC Sections 3 and 4 are not relevant at this early stage of exploration.