## 21 June 2022

**ASX Limited -** Company Announcements Platform

ARMADA METALS LIMITED (ASX: AMM)

# DIAMOND DRILLING INTERSECTS MAGMATIC SULPHIDES AT THE NYANGA PROJECT

## **Highlights:**

- Phase 1 drilling program, comprising ten diamond holes for 3,240 metres (m), is complete.
- Magmatic sulphide mineralisation has been intercepted in all ten diamond drill holes at the Libonga North, Matchiti Central and Libonga South targets along the Libonga-Matchiti Trend ('LMT').
- Detailed core logging has confirmed that the LMT is a dynamic, multi-phased magma conduit system.
- Selected zones will be tested for potential platinum group element (PGE) endowment by laboratory analysis (to be undertaken through July – August 2022).

Armada Metals Limited (ACN 649 292 080) (**Armada** or **Company**) is pleased to announce that all three targets drilled along the Libonga Matchiti Trend (**'LMT**') at the Nyanga Project, Gabon, have intersected magmatic sulphides.

The Phase 1 diamond drill program is now complete with a total of 3,240m having been drilled in ten drill holes at the Libonga North, Matchiti Central and Libonga South targets.

Richard Hornsey, from Richard Hornsey Consulting Ltd ('**RHC**'), and Armada's magmatic systems consultant, has been working with the Company's technical team on site to provide expert analysis of the intrusions, magmatic processes and economic potential, using a mineral systems approach that will enable the Company to further develop the current exploration model and search space.

Core observations support the 2018 geochemical study completed by RHC (as reported in the Company's Prospectus in December 2021). The LMT is now confirmed to be a complex, dynamic multi-phased magma conduit system, with crustal contamination having caused extensive sulphur saturation.





All ten diamond holes have intersected disseminated to strongly disseminated and blebby magmatic sulphide, with a typical magmatic assemblage of pyrrhotite and chalcopyrite (Appendix 4 provides field definitions). The core is currently being processed and sections will be assayed for the normal magmatic suite of elements including nickel, copper, cobalt, and the platinum group elements (PGE) which will also aid the geological understanding and future targeting.

Thorough interpretation of all the datasets will be undertaken once the structural data, physical property measurements, detailed core logs, and analyses have been received. This will include reinterpretation of the extensive field mapping and rock sample datasets, applying the detailed understanding from the drill core.

The initial proof of concept LMT drill program has now been successfully completed, having achieved the objective of proving that magmatic sulphides, and potential ore-forming processes, are present at the Nyanga Project. In particular, this program provides a comprehensive dataset that will significantly advance the Project from a technical perspective. Further exploration programs will be mobillised soon with focused target drilling planned for later in 2022.



Figure 1: LBSDD001 – 141.96m - 142.07m – magmatic sulphide stringer mineralisation, chalcopyrite (Cpy) and pyrrhotite (Po), within a gabbroic unit.





## Armada's Managing Director, Dr Ross McGowan, commented:

"Armada has delivered exciting initial technical results at the Nyanga Project, which have so far further demonstrated the potential of the Project to host magmatic nickel-copper sulphides in this highly prospective province. In particular, the identification of significant volumes of magmatic sulphide mineralisation, near surface, demonstrates that our technical team understands how to target this style of orogenic-associated magmatic sulphide. This successful start to our drilling program has not only proven that ore-forming processes have occurred, but that these results could potentially unlock the entire Libonga-Matchiti Trend, as well as other targets within our larger ground holding.

We look forward to providing shareholders with exploration updates as our detailed interpretation continues and new programs are mobilised and thank you all for the continued support thus far."

#### Armada's Magmatic Systems Consultant, Richard Hornsey, also commented:

"We are seeing all the signs of an active magmatic system. The presence of disseminated, veinlet, and stringer magmatic sulphides in every hole is an unprecedented start to the first drilling program in previously unexplored terrain."







Figure 2: Diagram displaying the location of the Phase 1 diamond drill holes, Nyanga Project, Gabon.





## Libonga North Drilling Program (G5-150)

- Four diamond holes (drilled for 1,501m) have been completed at the Libonga North Target, with 1,358m intersecting multiple intrusive sills (Table 1).
- Holes LBNDD001 and LBNDD002 were reported in the Company's quarterly report (see ASX announcement on 29<sup>th</sup> April 2022). More detailed examination of drill hole LBNDD002 has demonstrated this hole passed through intrusive rocks throughout the entire hole. Previously logged basement lithologies from 201.74m are now interpreted as highly contaminated phlogopite-rich gabbroic sills with a local, and strongly developed, magmatic foliation fabric.

#### Table 1: Libonga North drilling summary.

Target	Hole Id	Objective	Total (m)	Observations*
				Ultramafic units intersected.
Libonga North	LBNDD001	Test Maxwell plate X-LBN02	409.30	Sulphidic meta-pelites (hornfels) intruded by fractionated intrusion with disseminated sulphides (Figure 3 and Appendix 4). Graphitic alteration within the meta-pelites is the probable cause of the Maxwell plate (± magmatic Po/Cpy magmatic sulphides associated with the same unit). Hole terminated in a wehrlite unit.
				Ultramafic units intersected.
Libonga North	LBNDD002	Test Maxwell plate X-LBN04	407.70	Sulphidic meta-pelites (hornfels) intruded by fractionated intrusion with disseminated sulphides. Graphitic alteration within the meta- pelites is the probable cause of the Maxwell plate ( $\pm$ Po/Cpy magmatic sulphides associated with the same unit). Hole terminated in highly contaminated gabbroic intrusion with disseminated sulphides.
		Drill centre of strong magnetic		Ultramafic units intersected.
Libonga North	LBNDD003 Drill centre of strong magnetic susceptibility response and dense body interpretated from the airborne gravity isoshell	429.00	Magnetite detected in complex, stacked intrusive sills (magnetite interpreted as alteration of ultramafic lithologies). Hole ended in an intrusion.	
		Drill test Ni anomaly and BNDD004 magnetic susceptibility anomaly - test intrusion plunge	255.00	Ultramafic units intersected.
Libonga North	LBNDD004			Interpreted mafic/ultramafic sills. Hole ended in highly contaminated intrusive sill.
0	LBINDD004			· · · · · · · · · · · · · · · · · · ·

\*Further data analysis will aid in refinement of the initial interpretation.





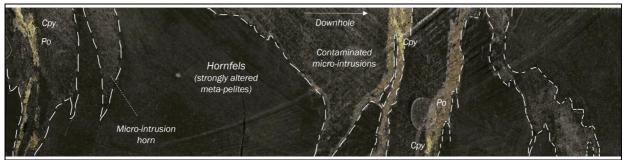


Figure 3: LBNDD001 – 134.50m – blebby/vein magmatic sulphide mineralisation associated with micro clinopyroxenites intruding into a meta-pelite (hornfels). The intrusive contacts are marked with a white broken line (previously interpreted as mineralisation within the meta-pelites - see ASX announcement on 29th April 2022). Field of view from top to bottom ~47mm.



Figure 4: LBNDD001 –246.00m – blebby magmatic sulphide mineralisation associated with a feldspar vein in a medium to coarse grained granular clinopyroxenite. Field of view from top to bottom ~30mm.

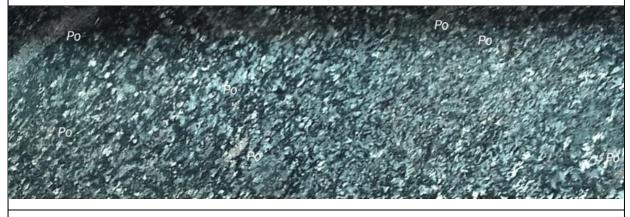


Figure 5: LBNDD002 – 355.50m – blebby magmatic sulphide mineralisation hosted in a varitextured, contaminated gabbro. Field of view from top to bottom ~36mm.





## Matchiti Central Drilling Program (G5-555)

- Four diamond holes (drilled for 1,014.50m) have been completed at the Matchiti Central Target with 950m intersecting multiple intrusive sills (Table 2).
- The first drill hole (MTCDD001) passed through a sequence of tremolite-altered mafic breccias, interpreted to be the margin or possible advancing tip, of the Matchiti Central intrusion.
- All holes intersected disseminated to strongly disseminated sulphides. The observed sulphide mineralisation is predominantly pyrrhotite and chalcopyrite.

#### Table 2: Matchiti Central drilling summary.

Target	Hole Id	Objective	Total (m)	Observations*
Matchiti Central	MTCDD001	Test plate X-MTC21, test Ni and Cu geochemistry	167.50	Ultramafic units intersected (Figure 6). Interpreted strongly tremolite-altered intrusion breccia zone and highly altered country rock with Po stringers (up to 10% of rock mass over multiple intervals). Hole terminated in a biotite schist – country rock.
Matchiti Central	MTCDD002	Drill test Ni anomaly down plunge - test intrusion plunge and conductivity features in the Geoscience Australia (GA) layered earth inversion modelling	280.00	Ultramafic units intersected (Figure 7). Mafic to ultramafic lithologies (with disseminated and blebby sulphides). Hole ended in a magmatic breccia sequence with wehrlite / clinopyroxenite compositions and strong magmatic foliation.
Matchiti Central	MTCDD003	Drill test ground gravity anomaly and test of conductivity features in the GA layered earth inversion modelling	360.00	Ultramafic units intersected (Figure 8). Mafic to ultramafic sills (with disseminated to heavily disseminated sulphides). Hole ended in a hybrid unit with gabbroic autoliths.
Matchiti Central	MTCDD004	Drill test Ni anomaly - test intrusion plunge	207.00	Ultramafic units intersected. Passing through stacked mafic to ultramafic sills with disseminated to strongly disseminated magmatic sulphide mineralisation. The hole ended in strongly foliated phlogopitic wehrlites.

\*Further data analysis will aid in refinement of the initial interpretation.







Figure 6: MTCDD001 – 84.45m – fine grained poikilitic wehrlite with vein magmatic sulphide concentrated along the micro-sill margin (dotted line) – in contact with a magmatic breccia.

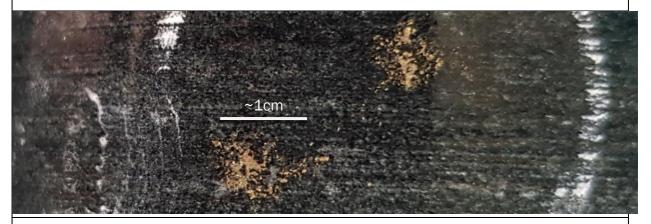
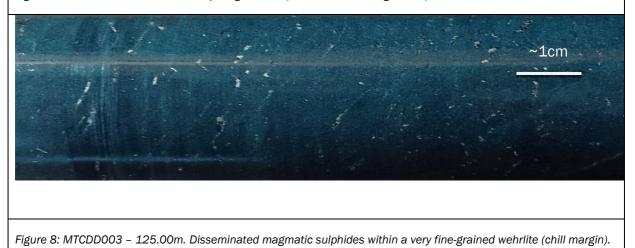


Figure 7: MTCDD002 – 54.85m. blebby magmatic sulphide within a fine-grained poikilitic wehrlite.







## Libonga South Drilling Program (G5-150)

- Two diamond holes (drilled for 724.5m) have been completed at the Libonga South Target with 583.5m intersecting multiple complex mafic to ultramafic sills (Table 3).
- The first hole (LBSDD001) was positioned on a ~1.2km nickel in soil anomaly. The hole passed through a sequence of gabbroic rocks with clinopyroxenites, and wehrlites locally. The hole was terminated in an interpreted chilled margin at 347m. A 2-5cm wide massive sulphide stringer was intersected at 142m downhole (Figure 1).
- LBSDD002 was positioned to test a 400m long Maxwell plate X-LBS13 with a chargeability of up to 50S/m. The HDTEM plate is modelled with a moderate to steep dip (65°) to the west. The hole intersected a similar sequence of highly contaminated gabbroic rocks intruding into meta-pelitic country rock.
- Both holes intersected disseminated to strongly disseminated sulphides (Appendix 4). The observed sulphide mineralisation consists of pyrrhotite and chalcopyrite, typical to the more fractionated intrusion lithologies.

Table 3: Libonga South drilling summary.

Target	Hole Id	Objective	Total (m)	Observations*
Libonga South	LBSDD001	Drill test Ni anomaly and magnetic susceptibility anomaly - test intrusion plunge	347.00	Mafic to ultramafic lithologies (with disseminated sulphides). Hole ended in a magmatic breccia sequence with wehrlite and clinopyroxenite compositions and strong magmatic foliation. A 2– 5cm-thick massive sulphide stringer was intersected at 142m downhole (Figure 1 or 9).
Libonga South	LBSDD002	Test plate X-LBS13, test Ni   Cu geochemistry and intrusion plunge down interpreted dip	377.50	Sulphidic meta-pelites intruded by fractionated intrusion with disseminated sulphides. Graphitic alteration within the meta-pelites is the probable cause of the Maxwell plate ( $\pm$ Po/Cpy magmatic sulphides associated with the same unit). Hole terminated in an intermediate intrusive – a strongly foliated clinopyroxenite.

\*Further data analysis will aid in refinement of the initial interpretation.





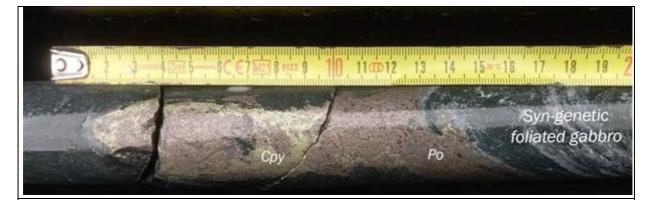


Figure 9: LBSDD001 – 141.96m - 142.07m – magmatic sulphide stringer mineralisation, chalcopyrite (Cpy) and pyrrhotite (Po), within a locally foliated gabbroic unit.



Figure 10: LBSDD001 – 94m – fine-grained melanogabbro with an irregular syn-genetic feldspar tremolite vein with blebby magmatic sulphide. Field of view from top to bottom ~ 47mm.



Figure 11: LBSDD002 – 208m - Mafic breccia in contact with a fine to medium grained clinopyroxenite with strongly disseminated to matrix magmatic sulphide on the contact. Field of view from top to bottom ~ 36mm.





## **Planned Exploration Activities:**

- Detailed analysis of the logged core using a portable XRF machine is ongoing. This work is designed to define optimal zones for assaying with the presence of magmatic sulphide throughout the drilled sequences.
- Physical property measurements of selected core samples are planned to be able to calibrate geophysical data.
- Selective sampling of magmatic sulphides to allow full geochemical characterisation.
- Planning of further ground and/or airborne geophysical surveys to assist the direct detection of magmatic sulphide accumulations.
- Planning of Phase 2 drill program on the LMT and additional targets.

This announcement has been authorised on behalf of the Armada Metals Limited Board by: Dr Ross McGowan, Managing Director and CEO.

-ENDS-

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## Background on Armada

Armada was established to define new belt-scale discovery opportunities for key commodities (principally nickel and copper) in under-explored regions of Africa. Armada is exploring a multitarget opportunity for orogenic-associated magmatic Ni-Cu-PGE sulphide in the Nyanga Basin, southern Gabon. The Company is supported by a Board and Africa-based technical team both with a track record of successful African projects. Key members of the Armada targeting team were part of the team awarded the 2015 PDAC Thayer Lindsley Award for an International Mineral Discovery (as members of the Kamoa discovery team with Ivanhoe Mines).





## Background on Richard Hornsey Consulting (Pty) Ltd

Richard Hornsey Consulting (Pty) Ltd ('RHC') has been retained by the Company to support the Company's technical team and assist to drive the exploration strategy.

RHC is an African-based consultancy that was established to provide specialist geological consulting services to the mineral exploration and resource sector. Richard Hornsey is the principal of RHC and is a globally recognised expert in Ni-sulphide and PGE exploration and mine development. Previously, Richard was MMG Ltd.'s Ni Commodity Team Leader with a global exploration mandate. RHC has been retained by the Company to provide technical consulting in magmatic sulphide Ni-Cu and PGE metals exploration, geological field services, data compilation and three-dimensional interpretation, and on-site technical reviews and exploration staff mentoring.

#### **Competent Persons Statement**

The information in this report relates to mineral exploration results and exploration potential based on work compiled under the supervision of Mr Thomas Rogers, a Competent Person and a member of a Recognised Professional Organisation (ROPO). Mr Rogers is contracted to the Company as Technical Manager and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that 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 Rogers is a member of the South African Council for Natural Scientific Professions, a ROPO. Mr Rogers consents to the inclusion in this report of the information in the form and context in which it appears.

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

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Armada Metals Limited's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may", "potential", "should," and similar expressions are forward-looking statements. Although Armada Metals Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

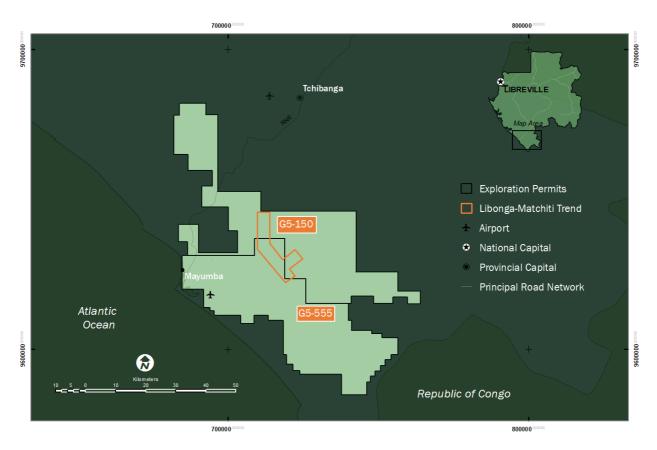




## Appendix 1: The Nyanga Project Background

The Company has developed a multi-target exploration pipeline consisting of 18 targets. Advanced exploration has so far been focused on the 25km-Long Libonga-Matchiti Trend ('LMT').

Five of these targets are located along the 25km-long Libonga-Matchiti Trend ('LMT'). This trend is marked by anomalous copper and nickel in soils along gabbro to peridotite fractionation suite units outcropping at surface.



Location of the LMT within the Company's exploration licences.





# Appendix 2: Nyanga Project – Phase 1 drill hole information.

Hole Id	UTMX	UTMY	UTMZ	Azimuth	Dip	Total Depth (m)	Target
LBNDD001	711130	9644228	420.545	270	-80	409.300	Libonga North
LBNDD002	710690	9644242	391.467	260	-80	407.700	Libonga North
LBNDD003	711744	9643494	386.000	090	-80	429.000	Libonga North
LBNDD004	712205	9642826	323.000	090	-70	255.000	Libonga North
LBSDD001	711608	9639995	449.000	090	-70	347.000	Libonga South
LBSDD002	711119	9640028	382.000	090	-70	377.500	Libonga South
MTCDD001	717376	9629778	380.000	050	-70	167.500	Matchiti Central
MTCDD002	716973	9629784	400.000	050	-70	280.000	Matchiti Central
MTCDD003	716972	9629784	400.000	230	-60	360.000	Matchiti Central
MTCDD004	717260	9628113	266.000	045	-70	207.000	Matchiti Central





## Appendix 3: JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>Sampling of the Libonga Matchiti Trend ('LMT') targets was undertaken using wireline diamond core drilling.</li> <li>The wireline diamond core drilling program was completed by Boart Longyear Gabon Sarl who provided all personnel, equipment, and materials and who were responsible for maintaining an average recovery rate of 90%, failure to maintain a 90% recovery necessitated a re-drill of the hole to achieve the requirement.</li> <li>All holes were started using HQ size (63mm diameter) and reduced to NQ (47mm diameter) and finally reduced to BQ size (36mm diameter).</li> <li>No diamond drill core sample collection has been undertaken at the time of reporting.</li> <li>Determination of mineralisation was undertaken using standard industry procedures including the geological logging (providing a written description of the type, style and relative abundance of the target minerals in any particular sample interval using a visual examination of the sample and the best judgement of geologists knowledgeable of and experienced in the type of mineral deposit which is under study) (Appendix 4).</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>Sampling of the LMT targets was undertaken by wireline diamond core standard tube drilling techniques, starting from surface with HQ sized drill core and reducing diameter (first to NQ and then to BQ) as required to maintain acceptable penetration of the formation</li> <li>Core was oriented using a Boart Longyear TruCore™ instrument.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul> <li>Drill core recovery was measured at the drill site by a technician who fitted broken pieces of core back together to reconstitute the core to</li> </ul>





Criteria	JORC Code explanation	Commentary
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>as intact a state as possible and measured the reconstructed core using a tape measure. This measurement was then compared to the length of the drilled core run and the percentage of recovery was calculated and recorded.</li> <li>Failure to maintain a 90% recovery necessitated a re-drill of the hole to achieve the requirement.</li> </ul>
		Constant monitoring of recoveries by technicians based at the drill sites provided immediate feedback to the drilling contractors on whether recoveries were acceptable. In the event where recoveries were noted to be lower than required, the drilling contractors were instructed to complete shorter core runs and were also capable of adding muds and conditioners to the water circulation to improve recoveries.
		<ul> <li>No diamond drill core sampling has been undertaken at the time of reporting.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies</li> </ul>	<ul> <li>Geological logging is completed at the Tchibanga exploration base camp.</li> <li>Logging is qualitative, recording rock type and mineral abundance, where possible, by field factoriat</li> </ul>
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>geologist.</li> <li>Fine grained (aphanitic textured) rocks cannot be logged in the field.</li> <li>All geological and geotechnical logging has been completed Company geologists with experience in similar deposits. The logging was in turn reviewed by a consultant geologist – Richard Hornsey.</li> <li>Geological logging was essentially qualitative in nature, noting visual observations of lithology, mineralisation, weathering, alteration, and structure.</li> <li>Digital core photography, of both wet and dry drill core, was completed for 100% of the wireline diamond drill core and is archived in the company's data room. All core photography has a label clearly visible in the photography with the drill hole ID and the drilled interval</li> </ul>
Sub-sampling techniques and	<ul> <li>If core, whether cut or sawn and whether quarter, half or all cores</li> </ul>	<ul> <li>No diamond drill core sampling has been undertaken at the time of reporting.</li> </ul>





Criteria	JORC Code explanation	Commentary
sample preparation	<ul> <li>taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>No diamond drill core sampling has been undertaken at the time of reporting.</li> <li>The dataset is visually interrogated and validated on site by the Company's geologists responsible for the collecting of relevant data. Data is then forwarded electronically to the data co-ordinator for validation and incorporation into a Access database (the principal database).</li> <li>The geological database is validated by the Company's Competent Person (CP). This validation included cross checks between original data sheets against the database, checking and cleaning of duplicate records, overlapping intervals, collar elevation errors (compared to topography) and survey accuracy e.g. collar surveys versus downhole surveys.</li> <li>All geological information from the drill hole logging is stored in the principal database.</li> <li>The principal database is backed up monthly and stored off site.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data</li> </ul>	<ul> <li>No diamond drill core sampling has been undertaken at the time of reporting.</li> </ul>





Criteria	JORC Code explanation	Commentary
	verification, data storage (physical and electronic) protocols.	
	<ul> <li>Discuss any adjustment to assay data.</li> </ul>	
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down- hole surveys), trenches, mine</li> </ul>	- GPSmap 62 units are used
	workings and other locations used in Mineral Resource estimation.	
	<ul> <li>Specification of the grid system used.</li> </ul>	
	<ul> <li>Quality and adequacy of topographic control.</li> </ul>	
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> </ul>	<ul> <li>For all programs commercial handheld Garmin GPSmap 62 units are used.</li> </ul>
	<ul> <li>Whether the data spacing, and distribution, is sufficient to establish</li> </ul>	Data spacing varies per deposit dependent on the type and style of the mineralisation.
	the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	<ul> <li>No diamond drill core sampling has been undertaken at the time of reporting.</li> </ul>
	<ul> <li>Whether sample compositing has been applied.</li> </ul>	
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	undertaken at the time of reporting.
	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.	
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>No diamond drill core sampling has been undertaken at the time of reporting.</li> </ul>
		<ul> <li>Sample chain of custody forms are used when samples are sent to commercial laboratories</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>The program is continuously reviewed by senior company personnel.</li> </ul>





## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation		Commentary		
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	•	exploration lice two licences co 2,991 km <sup>2</sup> The exploration Nyanga Projec Exploration Ga	ences: G5-15 ombined cove n licences con t are wholly h bon SARL, a urmada Explo owned subsid e in good stat	neld by Armada wholly owned ration Limited, in iary of the
Exploration done by	<ul> <li>Acknowledgment and appraisal of</li> </ul>		SYSMIN (2005	-2009)	
other parties	exploration by other parties.		Geophysics		
			The contractor used for the portion flown across the Nyanga Basin was Council for Geoscience ('CGS'), South Africa (see below for details of the survey).		
			SYSMIN magne acquisition (Blo		
			The contractor Geoscience ('C		
			Block 3 was flo	own at a mea	n altitude of 120m.
			Survey Parame	ters – fixed wi	ng platform
			Parameter	Unit	Remarks
			Flight Line Direction	0°	
			Flight Line Spacing (m)	500	
			Tie Line Direction	90°	
			Tie Line Spacing (m)	5000	
			Altitude (m)	120	Safety reasons – forest canopy
			Area (km2)	-	Not reported
			Actual Line Kilometres (km)	151,667	
					-





Criteria	JORC Code explanation	Commentary
		Geochemistry
		During the period from 2005 to 2009, 14 million Euros of European Union funding was provided for a dual geological and geophysical survey program (SYSMIN) by the French, South African and Gabonese Geological Surveys to outline the mineral prospectivity of Gabon
		This project had four components:
		<ul> <li>Geophysical data acquisition and re- processing</li> </ul>
		<ul> <li>Geological mapping leading to the publication of revised countrywide 1:1,000,000 and 1:200,000 scale geological maps</li> </ul>
		<ul> <li>Regional geochemical sampling</li> </ul>
		<ul> <li>The production of mine inventories</li> </ul>
		All samples and data are archived at the Geology Department of the Mines Ministry, Libreville Gabon
		This first three components cover the exploration permits and the complete datasets were acquired from the DGMG by Armada
		In 2018 Armada geological staff reanalysed all samples stored in archive as part of a QAQC exercise. Analysis was completed using the Armada PXRF. Armada sampling protocols were adopted for this exercise. Results of this exercise are stored in the company database along with the existing data files from the SYSMIN program
		Data for 2,561 soil sample and 162 sediment samples, within exploration licence G5-150 and G5-555, are stored in the Armada geochemical database
Geology	<ul> <li>Deposit type, geological setting, and style of mineralisation.</li> </ul>	The Company is exploring for orogenic- associated magmatic nickel-copper sulphides, with the possibility for platinum group element (PGE) by-product credits. Analogues: Kabanga Deposit, Tanzania, and Nova-Bollinger, Fraser Range, Australia.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration recults including a tabulation of the</li> </ul>	No diamond drill core sampling has been undertaken at the time of reporting.
	results including a tabulation of the following information for all Material	Boart Longyear™ TruShot™
	drill holes:	Stockholm precision tools (SPT) north-seeking





Criteria	JORC Code explanation	Commentary
	<ul> <li>easting and northing of the drill hole collar</li> </ul>	gyro survey tool
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul>	
	<ul> <li>dip and azimuth of the hole</li> </ul>	
	<ul> <li>down hole length and interception depth</li> </ul>	
	– hole length.	
	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.	
Data aggregation methods	<ul> <li>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.</li> </ul>	<ul> <li>No cut-off grades are being reported</li> <li>No aggregate intercepts are being reported</li> <li>No metal equivalent values are reported</li> </ul>
	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.	
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>	No diamond drill core sampling has been undertaken at the time of reporting.
widths and intercept lengths	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>	
	<ul> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</li> </ul>	
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts</li> </ul>	<ul> <li>Relevant diagrams have been included in the</li> </ul>





Criteria	JORC Code explanation	Commentary
	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.	announcement.
Balanced reporting	<ul> <li>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.</li> </ul>	<ul> <li>No results have been reported except for visual results. The Company awaits independent lab results for balanced reporting purposes.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>No other substantive data exists.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>The Company is currently reviewing the project data from the Libonga-Matchiti Trend ('LMT') to determine the type and extents of planned geophysical, geochemical, mapping and drilling.</li> <li>Refer to diagrams in the main body of text.</li> </ul>





## Appendix 4: Armada field logging guidelines.

Armada sulphide field logging guideline*		
Sulphide Mode	Percentage Range	Mapping Data
No sulphides	-	•
Trace	<1%	0
Disseminated & blebby	1-5%	•
Strongly disseminated /vein	5-10%	•
Matrix / stringer	10-20%	•
Net-textured	20-40%	•
Semi-massive	>40% to < 80%	•
Massive	>80%	•
Gossanous	-	

\*The Company advises that visual estimates of magmatic sulphide mineral abundance should not be used as a substitute for laboratory analyses where metal concentrations or grades are the factor of principal economic interest. Visual estimates do not provide information regarding potential deleterious elements for economic evaluations.

Field observation: three sulphide minerals could be recognised: chalcopyrite, pyrite, and pyrrhotite. Typically, the major sulphide minerals can be individually identified, however where the grain size of these minerals is fine or very fine grained the *total* amount of sulphide is estimated by the Company geologists.

In orogenic magmatic intrusion settings other magmatic sulphides such as cobalt, nickel and PGEs are associated with increased concentration of chalcopyrite and pyrrhotite. Visual identification of these minerals in the field has not been possible to date.

