

# **Aruma Resources Limited**

ABN 77 141 335 364 ASX: AAJ

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# **DRILLING CONFIRMS GLANDORE SYSTEMS**

- Glandore Gold project
  - 1,200m diamond hole EIS funded and drilled for \$200,000
  - State Government subsidised 50% of direct drilling costs (\$90,000)
  - **o** Nine sulphide mineralised alteration zones intersected
  - 240m of sulphide rich alteration zones assayed
  - Six mineralised zoned intersected with values up to 2.58g/t Au

Gold and copper explorer **Aruma Resources Limited ("Aruma") (ASX: AAJ)** is pleased to advise that the assays from the Glandore deep drilling program has now been completed.

The Glandore deep drilling intersected ~1,200m of mafic sediment analogous to the Golden Mile Dolerite with 240m of shaly chloritic altered zones with copper and tellurium anomalism detected by portable XRF. The core from these areas was cut and sampled for assay which has now been received. The significant (>0.1g/t Au) results are detailed in the table below.

Depth m d/h	Zone	Alteration	Trace	Au-FA25	Au-Rp1	Au-Rp2
89-90	Supergene	Cb-Qz-Py	Сру-Ер	0.17		
111-112	Supergene	Cb-Qz-Py	Сру-Ер	0.14		
138-139	Supergene	Cb-Qz-Py	Сру-Ер	0.15		
150-151	Supergene	Cb-Qz-Py	Сру-Ер	0.16	0.46	0.98
223-224	MZ 2	Cb-Qz-Py		0.11		
308-309	Axial Planar	Cb-Qz-Py-Bt	Сру	0.61	0.62	
309-310	Axial Planar	Cb-Qz-Py-Bt	Сру	0.16		
873-874	Eastern	Cb-Qz-Py-Bt	Сру	0.5	0.59	
996-997	Johnston	Cb-Qz-Py-Bt		2.58	2.56	
997-998	Johnston	Cb-Qz-Py-Bt		0.23		
1000-1001	Johnston	Cb-Qz-Py-Bt		0.12		
1063-1064	MZ 5	Cb-Qz-Py-Bt		1.07	0.91	

Table 1ADH 001 Intersection Summary for Au over 100ppb, showing the 4 expected<br/>zones and the additional 2 mineralised zones (MZ 2 and MZ 5). All<br/>measurements in meters down hole.



# **Glandore Deep Drilling**

# **Co-Funded Drill Program / Exploration Incentive Scheme**

Aruma Resources Limited (Aruma) was successful in its application for Round 11 of the WA Governments Co-funded exploration drilling programme under the Exploration Incentive Scheme (EIS).

Aruma secured funding for 50% of direct drilling cost up to \$200,000 at Aruma's ongoing Glandore Project. The funding was utilised for a single deep diamond drill hole designed to test for parallel lodes under the lake surface.

# **Drill Hole Aims**

The Glandore project was previously described as an anticline and was described by previous workers as a greenstone succession comprising a layered mafic sill that is overlain by a package of mafic and intermediate volcanic and volcaniclastic rocks.

Mineralisation has been previously drill tested at the Axial Planar Lode located on the eastern limb of the hinge zone of the postulated Glandore antiform. Additional lodes have been identified at the Eastern Lode, Central Fault Zone and Steves.

The deep diamond drill hole was designed to test the known mineralised structural positions (Supergene and Axial Planar Lode) on the eastern limb of the Glandore anticline. Another two of these positions are the Anglo and Johnston trends, which have not historically been drill tested.

# **Geology and Targets**

Alteration in mineralised zones were characterised by biotite-pyrite alteration. Other sulphide minerals include pyrrhotite and arsenopyrite. Brittle quartz-pyrite veins with well-developed ankerite-sericite-biotite-pyrite alteration haloes generally hosted zones of medium-grade gold mineralisation (1 to 5g/t Au). Intervals of low-grade mineralisation (0.5 to 1g/t Au) are usually hosted within quartz-pyrite veins and breccias. Accompanying the brecciation is pervasive biotite-ankerite-pyrite alteration (biotite dominant). High-grade mineralisation (10-50g/t Au) is hosted by quartz-arsenopyrite-pyrite veins that cross cut veining and alteration associated with medium grade mineralisation.

The axial-planar fault has a strike of approximately 250m, is 3m wide, extends to a vertical depth of 150m and has an average grade of 5g/t Au. There is approximately 0.5m of lake clays obscuring the bedrock at the prospect and correlation of other drill holes along strike give a potential strike of at least 500m to the mineralised zone.





# Figure 1 Google Earth image of total drilling at Glandore with latest air core holes in blue. The arrow displays the projection of the proposed drill hole.

Depth From	Depth To	Int. m	Zone	Rock	Major	Minor	Trace
68	151	83	Supergene	MAF	Cl-Pl-Am	Cb-Qz-Py	Сру-Ер
173	187.5	14.5	MZ 1	MAF	Cl-Pl-Am	Cb-Qz-Py	Сру
220	231	11	MZ 2	MAF	Cl-Pl-Am	Cb-Qz-Py	
			Axial				
282	311	29	Planar?	MAF	Cl-Pl-Am	Cb-Qz-Py-Bt	Сру
557	564.5	7.5	MZ 3	MAF	Cl-Pl-Am	Cb-Qz-Py-Bt	
710.5	719	8.5	MZ 4	MAF	Cl-Pl-Am	Cb-Qz-Py-Bt	
858	888	30	Eastern	MAF	Cl-Pl-Am	Cb-Qz-Py-Bt	Сру
960	1008	48	Johnston	MAF	Cl-Pl-Am	Cb-Qz-Py-Bt	
1050	1069	7.8	MZ 5	MAF	Cl-Pl-Am	Cb-Qz-Py-Bt	
	Total	239.3		MAF	CI-PI-Am	Cb-Qz-Py-Bt	

Table 2

ADH 1 as logged Intersection Summary, showing the 4 expected zones and the additional 5 mineralised zones (MZ 1 to MZ 5).





Figure 2The assay intersections (dashed shapes) from the Table 1Projected onto the diagrammatic drill hole section.

# **ADH 1 Drilling Summary**

- 1. Collar Co-ordinates MGA 94-51 391,660mE 6,595,553mS.
- 2. Coring commenced: 11.3 metres at a -60° dip at 55° azimuth.
- 3. End of hole depth: 1200.8 metres.
- 4. Orientation surveys were conducted every 30 metres.
- 5. The hole ended at an orientation of 66.9 degrees azimuth and -57.6 degrees dip.
- 6. Over the 1200 metres of the hole the hole deviated 11.9 degrees to the south and lifted by 2.4 degrees.
- 7. The core was HQ to 302.4m and NQ to 1200.8m



ADH 1	Au ppm	Au ppm	Au ppm	Zone
Depth to	Au Assay	Repeat 1	Repeat 2	Name
76	0.07			Supergene
78	0.06			Supergene
90	0.17			Supergene
91	0.09			Supergene
99	0.07			Supergene
101	0.06			Supergene
110	0.09			Supergene
112	0.14			Supergene
139	0.15			Supergene
142	0.06			Supergene
145	0.06			Supergene
148	0.07			Supergene
149	0.08			Supergene
151	0.16	0.46	0.98	Supergene
179	0.06			MZ 1
224	0.11			MZ 2
298	0.06			Axial Planar
299	0.07			Axial Planar
309	0.61	0.62		Axial Planar
310	0.16			Axial Planar
311	0.06			Axial Planar
555	0.08			MZ 3
721	0.09			MZ 4
873	0.06			Eastern
874	0.5	0.59		Eastern
888	0.06			Eastern
977	0.09			Johnston
997	2.58	2.56		Johnston
998	0.23			Johnston
1001	0.12			Johnston
1064	1.07	0.91		MZ 5

# Table 3ADH 001 Intersection Summary for Au over 50ppb, showing the 4 expected<br/>zones and the additional 5 mineralised zones (MZ 1 to MZ 5)



# Results

The drillhole was completed on time and on budget, with full core recovery achieved with orientation. The very thick sequence of Mafic Sediment (Volcanic Wacke similar to the Golden Mile Dolerite) had sulphide and carbonate throughout with nine zones of mineralised (pyrite – biotite – carbonate ± chalcopyrite – quartz) shaly material totalling nearly 240m.

The assay grades returned two assays above one gram per tonne with the full assays above 100ppb Au showing the continuous mineralisation trends which demonstrate that the mineralising trends are consistent along strike and down structure.

The Glandore system is a mineralised gold-sulphur system and has many locally mineralised smaller shoots such as Axial Planar and Supergene. The focus of the next phase of exploration will be the evaluation of the smaller near surface gold mineralisation.

## For further information please contact:

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### Competent Person's Statement

The information in this release that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Peter Schwann who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Schwann is Managing Director and a full time employee of the Company. Mr Schwann 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 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserve'. Mr Schwann consents to the inclusion in the release of the matters based on his information in the form and context in which it appears.



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>Core was cut in half by diamond saw and sampled in 1M sections</li> <li>1m samples averaged 2.26kg for NQ core and 4.465kg for HQ Core.</li> <li>Total sample pulverised and split to give 100g splits</li> </ul>
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 other type, whether core is oriented and if so, by what method, etc.).	<ul> <li>8. Diamond Core was HQ to 302.4m and NQ to 1200.8m</li> <li>NQ and HQ core</li> <li>full orientation and surveyed at 30m intervals</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <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>Full recovery in core section with top 11.3m rock roller drilled and not sampled</li> <li>Core was fully oriented with runs of up to 6m</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 and metallurgical studies.</li> <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>Core is fully geologically logged</li> <li>Logging qualitative with minor portable XRF</li> <li>All samples logged</li> </ul>
Sub-sampling techniques	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core 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> </ul>	<ul> <li>Core cut and sampled in half core</li> <li>1m samples assayed if the core met mineralised requirements of sulphides, carbonate and mica</li> </ul>

# Section 1 Sampling Techniques and Data

**Aruma Resources Limited** 

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Criteria	JORC Code explanation	Commentary
and sample preparation	<ul> <li>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.</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 (ie. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Assays at Intertek Genalysis by FA25g charge with AAS finish.</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 verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Repeats done in house and judged to be satisfactory</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 workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul><li>Sample location by GPS.</li><li>All locations are GDA94 Zone 51</li></ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drill collar fully reported</li> <li>No resource calculations done</li> <li>No compositing done</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	• 30mo down hole survey, fully oriented



Criteria	JORC Code explanation	Commentary	
Sample security	The measures taken to ensure sample security.	Samples digitally and physically recorded.	
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	<ul> <li>No audits or reviews were deemed necessary outside of internal standards as this is purely qualitative assaying for exploration.</li> </ul>	

# **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> <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 license to operate in the area.</li> </ul>	<ul> <li>All tenements and issues required are detailed in the reports.</li> <li>All work done under PoWs.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	Previous work on the area acknowledged
Geology	Deposit type, geological setting and style of mineralisation.	Structurally controlled Hydrothermal gold in a Bouma Sequence
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	Detailed in the report

#### **Aruma Resources Limited**



Criteria	JORC Code explanation	Commentary
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> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	• none
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <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>	<ul> <li>down hole length, true width not calculated but core angles close to 90 degrees</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	• As done
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>All samples on the leases are shown graphically and/ or have been previously reported</li> </ul>
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.	<ul> <li>HyVista data and figures and the relationship with the Aruma exploration and genesis model are detailed in many previous reports and presentations.</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>	• As detailed in the report.