# Woodie Woodie North Surface Manganese Indicates Direct Shipping Ore Potential

- Initial surface sample results indicate Direct Shipping Ore (DSO) potential with an average lump and fine grade of 41.4% Mn and 13.6% Fe
- Heavy Media Separation (HMS) results from a 150kg composite sample at Target 42 (Braeside West Prospect) indicate manganese can be upgraded to a 43.4% Mn premium concentrate
- Further metallurgical test work is underway to target a battery-grade product
- An RC drilling program will test the near surface high-grade potential of the area



Figure 1: Photograph of the Braeside West prospect Heavy Media Separation bulk sample material

#### Managing Director Yaxi Zhan commented,

"This latest test work supports the potential of the Woodie Woodie North Project area to produce high-grade manganese concentrate products. These are currently in high demand for the steel and battery markets. We will use this study to initiate a more detailed test work program as we look forward to reporting the results from our first major drilling program."



Accelerate Resources Limited (ASX Code: AX8) is pleased to report positive results from baseline metallurgical test work on a bulk surface sample (~150kg) from the Braeside West prospect within the Woodie Woodie North Manganese Project in Western Australia (Figure 1).

Multiple surface grab samples were collected over an area of approximately 4 hectares and composited into a single bulk sample representing outcropping surface manganese (Figure 2).

Outcropping manganese occurs as "pods" up to tens of metres in area on surface (Photo 1 and Photo 2).

The results are very encouraging, demonstrating a DSO (Direct Ship Ore) Lump quality product with grades up to 40.9% Mn and 13.8% Fe.

The tests were preliminary in nature and form the baseline for product optimisation in future metallurgical programs.

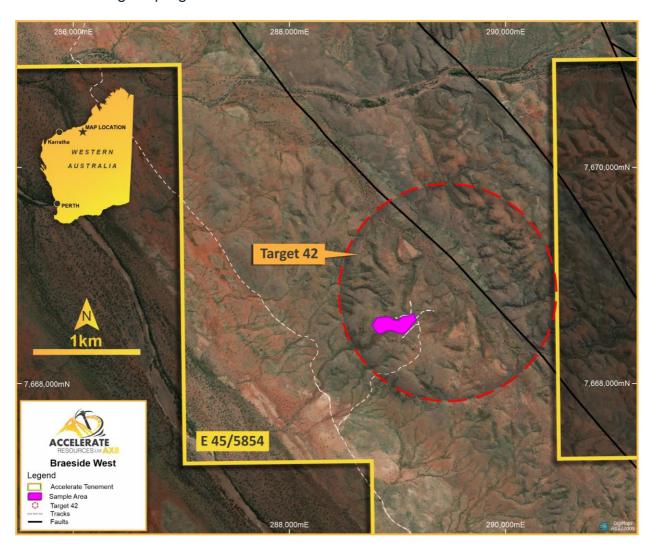


Figure 2: Bulk Sample location in the Target 42 of the Braeside West Prospect, Woodie Woodie North Manganese project





Photo 1: Surface outcrop composite sample at the Braeside West prospect, Woodie Woodie North Manganese Project

## **Metallurgical Test Work Summary**

Accelerate engaged specialist metallurgical laboratory, Nagrom Laboratories (Perth), to conduct preliminary manganese test work on the surface bulk sample. The test work programs explored conventional low-cost heavy media separation (HMS) techniques, including dense media separation (DMS) using cyclones for fines and Ericsson Cone (EC) for lump.

Results for 32mm crushed product screening are presented in Table 1.

**Table 1 Crushed Product Size Assay** 

	Distril	bution	Grade						
Crushed Product < 32mm	Mass	Mn	Mn	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Р		
	%	%	%	%	%	%	%		
Lump	81.7	82.7	41.4	13.6	8.6	1.9	0.044		
Fine	13.6	13.5	40.2	14.1	10.2	2.0	0.051		
< 1mm	4.7	3.8	33.5	16.2	15.0	2.9	0.061		

Results for the Lump (EC) and Fine (DMS) processing after screening the crushed sample at 1mm are presented in Table 2.



**Table 2 Summary Heavy Media Separation** 

	Distrik	oution	Grade						
Summary Balance	Mass Mn		Mn	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Р		
	%	%	%	%	%	%	%		
Ericsson Cone Lump									
Product	66.9	70.9	43.3	14.1	4.5	1.9	0.044		
Dense Media Cyclone									
Fine Product	10.8	11.5	43.5	14.3	3.8	1.9	0.049		
Waste	aste 22.3		32.2	12.6	25.5	2.3	0.0484		
Calculated Head	100	100	40.9	13.8	9.1	2.0	0.045		

The calculated head assay confirms the high-grade nature of the manganese at surface producing a lump product grading **41.4% Mn** and fine product grading **40.2% Mn** (Table 1).

## **Exploration Strategy and Planned Program**

Accelerate aims to define economic manganese resources at the Woodie Woodie North Manganese Project as a precursor to future commercial mining operations. The planned work program includes:

- An RC drilling program commenced in mid-July targeting a maiden JORC (2012) resource at the Woodie Woodie North Manganese Project by end of the 2022 field season.
- An IP and/or EM Survey to assist with additional target definition.
- Drill sampling to support further metallurgical beneficiation and High Purity Manganese test work.

#### -ENDS-

This announcement has been produced by the Company's published continuous disclosure policy and approved by the Board.

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#### **Forward Looking Statements**

Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Accelerate Resources Limited, 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 depending on various factors.

#### **Competent Person Statement**



Information in this release that relates to historical results and future exploration work was prepared by Adriaan du Toit, who is a member of the Australian Institute of Mining and Metallurgy (AusIMM) and is currently an independent consultant to AX8. Mr du Toit is the Director and Principal Geologist of AEMCO Pty Ltd. He has over 30 years of exploration and mining experience in various mineral deposits and styles. Mr du Toit was the exploration manager for Shaw River Manganese (ASX: SRR delisted) and explored the Barramine project from May 2010 to November 2012. Mr du Toit has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined by the 2012 JORC Edition. The information from Mr du Toit was prepared under the JORC Code 2012 Edition. Mr du Toit consents to the inclusion in this release of the matters based on this information in the form and context it appears.

# **Appendix 1 – Head Grade Assay Results**

Comp ID	Comp Mass	$Al_2O_3$	$As_2O_3$	BaO	CaO	Cl	CoO	Cr <sub>2</sub> O <sub>3</sub>	CuO	Fe	K <sub>2</sub> O	MgO	Mn	Na <sub>2</sub> O
	kg	%	%	%	%	%	%	%	%	%	%	%	%	%
BW-Surface MN-081221	157	1.82	0.004	0.246	0.12	<0.01	0.032	0.003	0.005	12.65	1.811	0.06	42.15	0.30
			NiO	Р	PbO	Sb <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	S	SrO	TiO <sub>2</sub>	$V_2O_5$	ZnO	ZrO <sub>2</sub>	$LOI_{1100}$
			%	%	%	%	%	%	%	%	%	%	%	%
			0.005	0.036	0.009	<0.01	8.03	0.032	0.037	0.040	< 0.001	0.022	0.002	10.71

# **Appendix Two**

# **JORC Code, 2012 Edition – Table 1 report**

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality 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> </ul>	<ul> <li>A bulk sample of approximately 36 calico bags, shipped in 6 poly woven bags totalling approximately 150kg was collect from multiple surface grab samples sites from an area of approximately 4 hectares and composite into a single bulk sample representing outcropping surface manganese.</li> <li>Outcropping manganese does not form a continuous 'bed" as manganese occurs as "pods" up to tens of metres in area.</li> </ul>
Drilling techniques	Drill type and details	No Drilling Completed
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> </ul>	No Drilling Completed
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 studies.</li> <li>Whether logging is qualitative or quantitative in nature.</li> <li>Core (or costean, channel, etc) photography.</li> </ul>	No Drilling Completed
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether 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> </ul>	<ul> <li>No Drilling Completed</li> <li>No field sample preparation</li> <li>Sample Preparation by accredited Laboratory (Nagrom) to Industry standards</li> </ul>
	<ul> <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 in situ material collected, including field duplicate results.</li> </ul>	<ul> <li>Sub-samples subject to Quality Control measured at the Laboratory</li> <li>There is no evidence that the samples were not professionally handled and analysed.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <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 (eg standards, blanks,</li> </ul>	<ul> <li>Sample was crushed to cP100 31.5mm, Blend and Split and split into 5 samples for: Head Analysis/Moisture Determination/Semi-Quantitative XRD, Size by Assay, Mineralogy Prep, Wet Screen with the remainder as reserve.</li> <li>All samples were analysed via XRF for Al2O3, As2O3, BaO, CaO, Cl, CoO, Cr2O3, CuO, Fe, K2O, MgO, Mn, Na2O, NiO, P, PbO, Sb2O3, SiO2, S, SrO, TiO2, V2O5, ZnO, ZrO2 and LOI1100. (See Appendix 1).</li> <li>There is no evidence that the samples were not professionally handled and analysed and processed to Industry standard.</li> </ul>
	duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	manarea and analyses and processes to industry standard.
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> </ul>	No drilling undertaken in this program.
	Discuss any adjustment to assay data.	
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), and other locations used in Mineral Resource estimation.</li> </ul>	<ul> <li>Surface sampling locations were recorded by handheld GPS units. Accuracy is of the order of 5 m. Co-ordinates are in MGA94-Z51.</li> <li>No work has been completed on topographic control.</li> </ul>
	<ul><li>Specification of the grid system used.</li><li>Quality and adequacy of topographic control.</li></ul>	

Criteria	J	ORC Code explanation	C	ommentary
Data spacing and distribution	•	Data spacing for reporting of Exploration Results.	•	Data spacing defined by surface mapping. Outcrops were sampled to understand the Mn mineralization and metallurgical properties.
	•	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity		
	•	Whether sample compositing has been applied.		
Orientation of data in relation to geological structure	•	Whether the orientation of the sampling achieves unbiased sampling of possible structures.	•	Mineralization occurs in irregularly shaped disseminations within altered breccia zones. Therefore, it is considered unlikely that the mineralization will be bound to a specific orientation and that no sampling bias exists.
Sample security	•	The measures taken to ensure sample security.	•	Company personnel collect samples. The samples are packed into poly weave bags for dispatch. The samples are delivered to the nearest freight centre by company staff. They were then delivered to the contracted laboratory company staff. The lab (Nagrom) holds the samples in secure premises until sample preparation is done. Samples received are checked against samples dispatched for any irregularities.  Sample security is not seen as a significant risk.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	•	As the projects are at either initial exploration or pre-resource drilling stages no reviews have been carried out.

# **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.</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>	<ul> <li>Sample collected from Woodie Woodie North Project (<i>E45/5854</i>.</li> <li>The tenements are located within crown land and are subject to pastoral leases.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>There are no known impediments to the granting of tenements under application. All tenements are in good standing.</li> </ul>
		Exploration of the tenements is subject to following acts:
		<ul> <li>Mining Act 1978 (WA)</li> <li>Petroleum and Geothermal Energy Resources Act 1967 (WA)</li> <li>Aboriginal Heritage Act 1972 (WA)</li> <li>Native Title Act 1993 (Commonwealth)</li> <li>Aboriginal Communities Act 1979 (WA)</li> <li>Aboriginal Affairs Planning Authority Act 1972 (WA)</li> <li>Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth)</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Activity within E45/5854 started with Valiant completing 380 anomaly logs with occasional rock chip sampling within their exploration Lease E45/1337, which they held between 1996 &amp; 1997. In March 1996, Valiant drilled 80 RAB holes totalling 867 metres with 186 assay samples at various intervals. A50605 &amp; A57720. 40 of these RAB holes are on the current tenement E45/5854</li> </ul>
		<ul> <li>Pilbara Manganese drilled 5 RC holes in 2015 totalling 579 metres.</li> <li>A108909</li> </ul>
		<ul> <li>Geochemical exploration was conducted by Pilbara Manganese, Jupiter Mines and Fortescue Metals Group at various dates between 2009 and 2015</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>Hydrothermal massive and/or disseminated Mn replacement mineralization within altered dolomite and chert.</li> </ul>
Drill hole Information	<ul> <li>A summary of all material information including a tabulation of the following information for all Material drill holes:</li> <li>Easting, northing and elevation of the drill hole collar</li> <li>Dip, azimuth and depth of the hole</li> <li>down hole length and interception depth</li> </ul>	No Drilling Reported

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No Applicable
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 the True width is not known there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Not Applicable
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>	See figures bound in the report
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.</li> </ul>	<ul> <li>All known exploration data has been presented and reported without bias</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.	No substantive exploration data not already mentioned in the announcement or in this table have been used.
Further work	<ul> <li>The nature and scale of planned further work (eg 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.</li> </ul>	Generalized proposed work is listed under Highlights. Specific details have not yet been established.

Sections 3, 4 and 5 do not apply to this report as there are no mineral resources, no ore reserves and no gemstones reported in this report.