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## BARRAMBIE TITANIUM PROJECT - UPDATE

### HIGHLIGHTS

- Neometals commences pilot-scale beneficiation test work on Barrambie ore to produce concentrates for the 'Neomet Process' Pilot Plant and for a Direct Shipping operation.
- Significant high-grade intercepts returned from recent metallurgical drilling include:
  - 40.0 metres at 34.6% TiO<sub>2</sub> and 0.72% V<sub>2</sub>O<sub>5</sub>, from surface
  - 40.0 metres at 34.4% TiO<sub>2</sub> and 0.66% V<sub>2</sub>O<sub>5</sub>, from surface
  - 40.0 metres at 34.1% TiO<sub>2</sub> and 0.70% V<sub>2</sub>O<sub>5</sub>, from surface
  - 40.0 metres at 33.6% TiO<sub>2</sub> and 0.64% V<sub>2</sub>O<sub>5</sub>, from surface
  - 40.0 metres at 31.8% TiO<sub>2</sub> at 0.85% V<sub>2</sub>O<sub>5</sub>, from surface
  - 40.0 metres at 31.5% TiO<sub>2</sub> and 0.69 % V<sub>2</sub>O<sub>5</sub>, from surface
- Significant intercepts returned from maiden exploration drilling at Virginia Hills prospect includes:
  - 14 metres at 18.2% TiO<sub>2</sub> and 0.47% V<sub>2</sub>O<sub>5</sub>
  - 18 metres at 18.1% TiO<sub>2</sub> and 0.42 % V<sub>2</sub>O<sub>5</sub>

Neometals Ltd (ASX: NMT) ("Neometals") is pleased to announce it has commenced pilot-scale beneficiation test work as it advances development plans for Barrambie Titanium Deposit in WA, one of the world's highest-grade titanium deposits.

The Company's project engineers, Sedgman Ltd, have updated the Pre-feasibility Study ("PFS") with optimisation test work results using the Neomet Process to produce Titanium Hydrolysate (TiO<sub>2</sub>.2H<sub>2</sub>O). The associated engineering study indicates the Neomet Process can be integrated with existing titanium pigment plants at minimal cost and modification. The advantages of the revised combined process are reduced operating cost, easier operations, higher purity final products and improved environmental footprint.

The original PFS, (see ASX announcement 25 August 2015) indicated potential operating costs of US\$572/t titanium dioxide pigment. The current median price for high quality titanium dioxide pigment is US\$2,950 per tonne on a CIF basis to USA (source: Industrial Minerals, 7 September 2017).

The revised Neomet Process will undergo pilot trials in late 2017. Neometals plans to licence the Neomet Process to titanium industry partners conditional on the entry into a long-term, take-or-pay offtake agreement for Barrambie titanium concentrates.

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In parallel with the pilot evaluation of titanium hydrolysate production the Company will evaluate a fast-track start-up of Barrambie as a direct shipping operation. The ore would undergo toll-concentration a titaniferous magnetite concentrate in China for supply as feedstock to Chinese titanium pigment producers. On the 7<sup>th</sup> August 2017, the Chinese government announced the permanent closure of 89 ore processing companies in Sichuan province, constraining ilmenite production and limiting supply.

### Drilling Results

In June and July twenty (20) holes were drilled within the TiO<sub>2</sub> starter pit area to collect samples for metallurgical test work. Holes were drilled using diamond drilling techniques producing PQ core sample. Core was geologically logged on site, and shipped to Perth for cutting and quarter core sampling. Sampling was conducted on 1m intervals downhole for the first 40 metres only of each hole to correspond with the starter pit depth. Sampling of remainder of the core will commence this month.

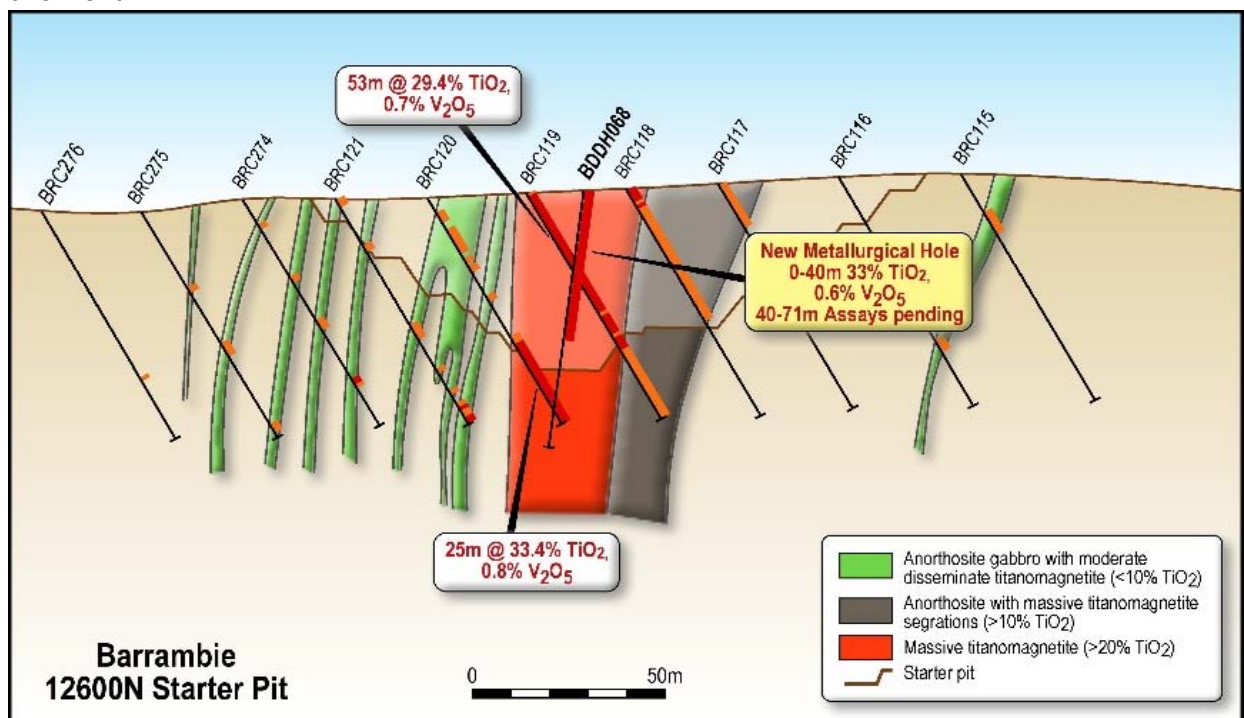


Figure 1: Cross Section 12600N within Northern Starter Pit showing recent metallurgical core hole

A further twenty-one (21) Resource Extension-holes were drilled across three (3) traverses to test strike extensions of the Barrambie deposit as well as a structural repetition of the mineralised unit to the west of Barrambie (Virginia Hills). Drill traverses were located at Barrambie North, Ballanhoe Hills and Virginia Hills (see Figure 4 of Appendix A).

Resource extension-holes were drilled using the reverse circulation (RC) technique by Challenge Drilling with samples collected on a per metre basis using face sampling hammers. The 1 metre composite samples were reduced in size using a cone splitter to produce one sample of 3 to 4 kg weight for each metre for assaying. It is estimated that greater than 95% of samples reported to the splitter device dry.

Geological logging of both RC and diamond core was completed in sufficient detail to support reporting of exploration results. Logging was both qualitative and quantitative; full descriptions were recorded on standard logging forms of lithology, alteration, and oxidation as well as percentage estimates of alteration minerals, and veining.

Sample preparation and analysis was conducted by Intertek. Whole rock analysis of a standard iron ore suite was conducted by lithium borate fusion and ICP finish. The metallurgical drilling and resource extension drilling and assay details are set out at Table 3 and 4 of Appendix A: Supporting Information.

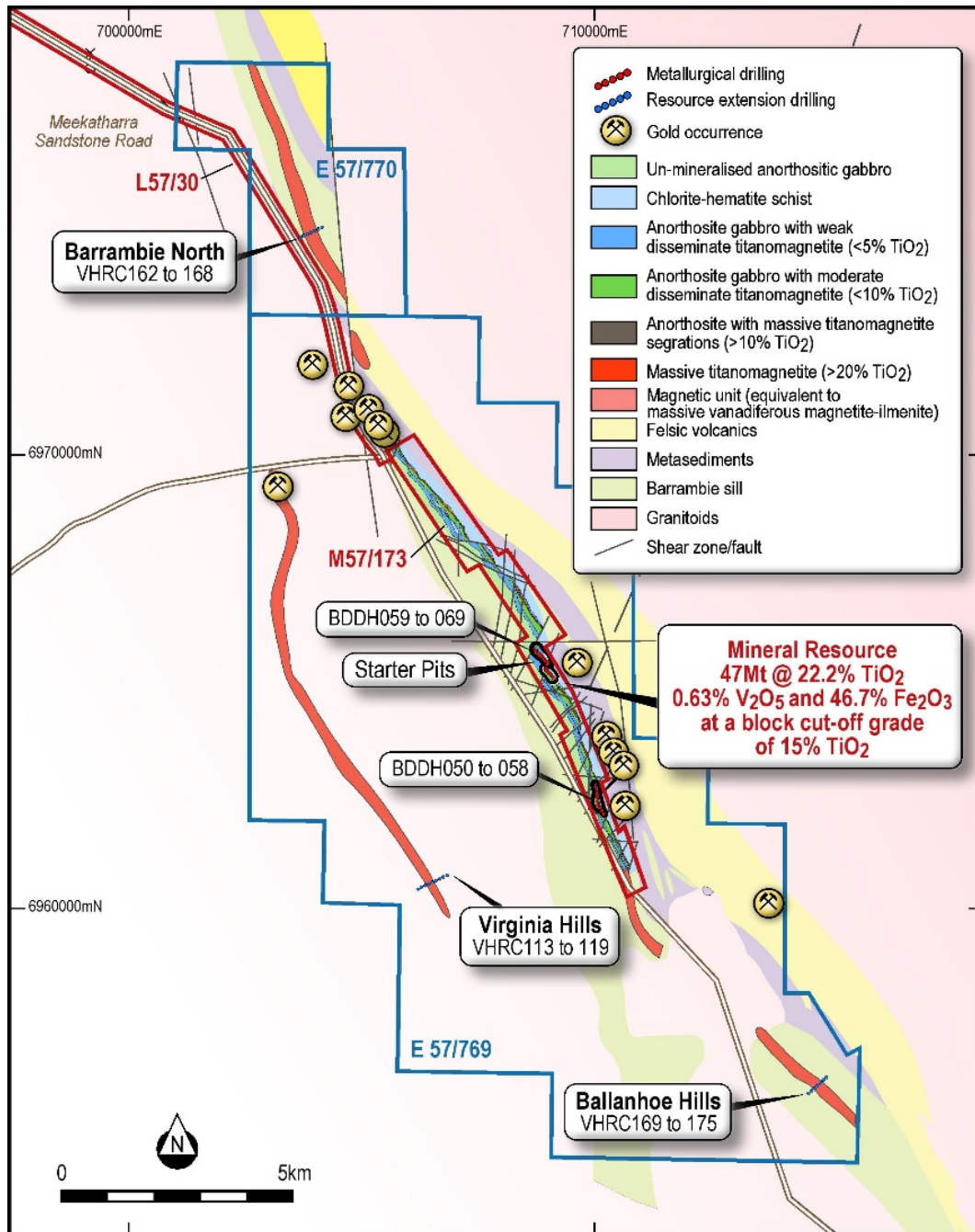


Figure 2: Barrambie Project Geology showing location of recent drilling.

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## Metallurgical Pilot Test work

The Company has commenced the pilot scale beneficiation test work at Nagrom Metallurgical laboratories in Perth. The concentrate that will be produced will be supplied to Chinese titanium producers and for the pilot scale test work of the Neomet Process at the Company's facility in Montreal, Canada.

Results of the beneficiation test work are expected in the December Quarter and hydrometallurgical test work is expected to commence late in the December Quarter. Both are key outputs for the commercialisation of the project.

Starter Pit	0m to 10m TiO <sub>2</sub>	10m to 20m TiO <sub>2</sub>	20m to 30m TiO <sub>2</sub>	30m to 40m TiO <sub>2</sub>
North	25.4%	28.2%	25.5%	23.4%
Central	25.8%	27.4%	31.0%	29.5%
South	25.3%	27.3%	27.8%	26.3%

Table 1: TiO<sub>2</sub>% Grades for 10m Composites within Starter Pits

## ENDS

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## COMPETENT PERSONS STATEMENT

The information in this market announcement is extracted from the reports entitled Barrambie Resource Estimate December 2013, and Barrambie Prefeasibility Study August 2015 and announced 6 December 2013 and 25 August 2015.

Neometals Ltd confirms it is not aware of any new information or data that materially affects the information in the original market announcements relating to Barrambie mineral resources and pre-feasibility study, that all material assumptions and technical parameters underpinning the Barrambie mineral resource estimate continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this announcement that relates to Exploration Targets is based on information compiled by Clay Gordon, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and Australia Institute of Geoscientists. Mr Gordon is employed by Advance Geological Consulting Pty Ltd, an independent consultant to Neometals Limited. Mr Gordon 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 Reserves'. Mr Gordon consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

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## APPENDIX A: SUPPORTING INFORMATION



Figure 3: Barrambie Titanium Project – location plan

### JORC Mineral Resources

Barrambie Titanium Project has Mineral Resources of 47.2 million tonnes at 22% TiO<sub>2</sub> (total Indicated and Inferred) (announcement ASX:RDR 6 December 2013).

Category JORC 2012	Tonnage (Mt)	TiO <sub>2</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	Fe <sub>2</sub> O <sub>3</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	SiO <sub>2</sub> (%)
Indicated	34.7	22.25	0.64	46.77	9.48	14.95
Inferred	12.5	21.99	0.58	46.51	9.32	15.40
<b>Total</b>	<b>47.2</b>	<b>22.18</b>	<b>0.63</b>	<b>46.70</b>	<b>9.44</b>	<b>15.07</b>

Table 2: Barrambie Titanium Project – Mineral Resources (above 15% TiO<sub>2</sub> block cut off)

The ferrovanadium titanium (Ti-V-Fe) deposit occurs within the Archaean Barrambie Greenstone Belt, a narrow, NNW-SSE trending greenstone belt in the northern Yilgarn Craton. The linear greenstone belt is about 60 km long and attains a maximum width of about 4 km. The Barrambie Sill extends over a distance of at least 25 km approximately half of which is covered by Neometal's tenements where it varies in width from 500 m to 1700 m.

The sill is comprised of anorthositic magnetite-bearing gabbros that intrude a sequence of metasediments, banded iron formation, metabasalts and metamorphosed felsic volcanics of the Barrambie Greenstone Belt. The metasediment unit forms the hanging-wall to the layered sill complex.



Ti-V-Fe mineralisation occurs as bands of cumulate aggregations of vanadiferous magnetite (martite)-ilmenite (leucoxene) in massive and disseminated layers and lenses. Titanium rich horizons tend to be focussed in the relatively wider band on the eastern margin of the Sill.

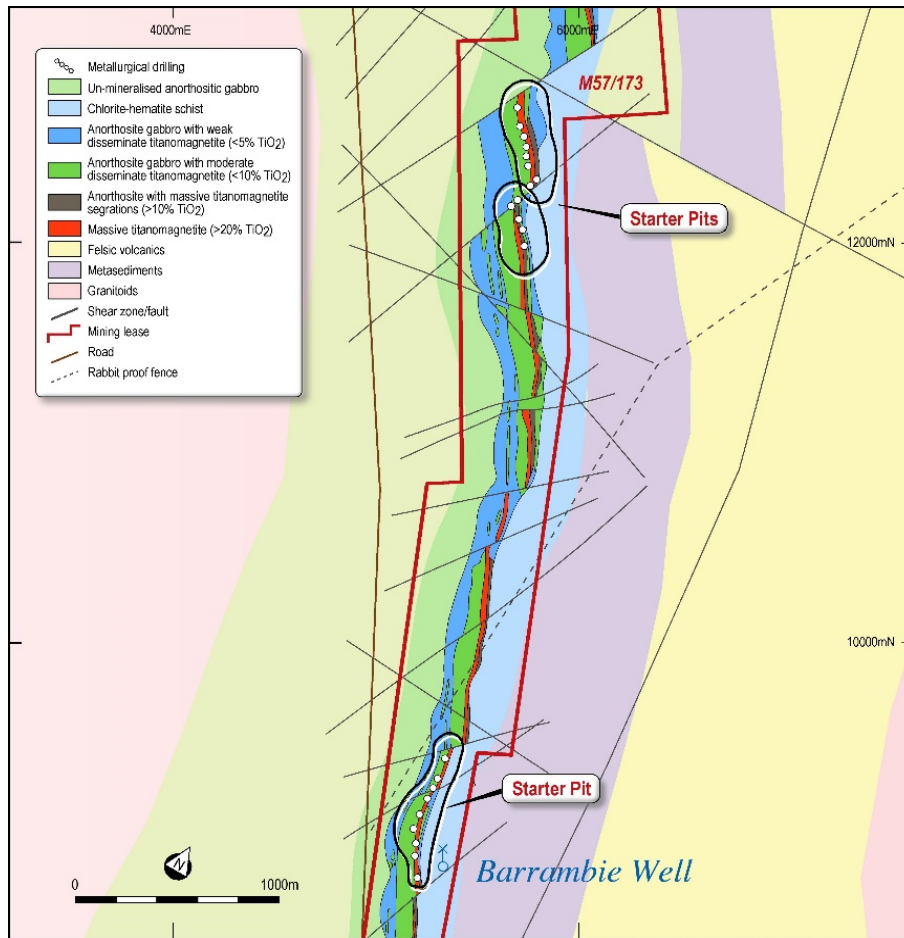


Figure 4: Barrambie Sill geology, location of starter pits and recent metallurgical drill holes.

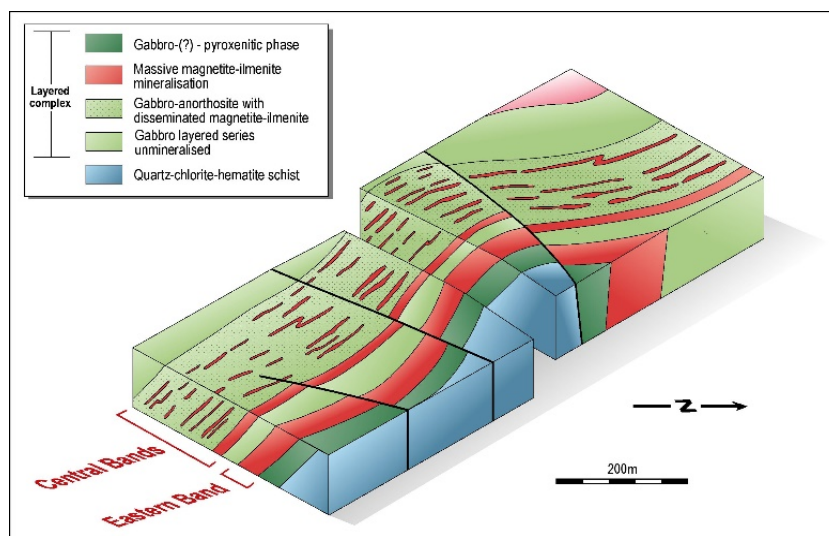


Figure 5: Barrambie deposit 3D geology

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Target	Drill Hole Number	Co-ordinates GDA 94		dip	Azimuth	Depth	from (m)	to (m)	width (m)	TiO <sub>2</sub> %	V <sub>2</sub> O <sub>5</sub> %	sample
		Easting	Northing									
Barrambie	BDDH050	710200	6962100	-85	240	71	0.0	40.0	40.0	24.9	0.63	Qtr PQ core
	BDDH051	710138	6962189	-85	60	71	0.0	40.0	40.0	29.1	0.63	Qtr PQ core
	BDDH052	710111	6962247	-90	000	71	0.0	40.0	40.0	16.9	0.38	Qtr PQ core
	BDDH053	710064	6962308	-90	000	71	0.0	40.0	40.0	34.1	0.70	Qtr PQ core
	BDDH054	710056	6962383	-90	000	71	0.0	40.0	40.0	17.2	0.59	Qtr PQ core
	BDDH055	710050	6962473	-80	240	71	0.0	40.0	40.0	30.0	0.72	Qtr PQ core
	BDDH056	710047	6962530	-90	000	71	0.0	40.0	40.0	29.8	0.73	Qtr PQ core
	BDDH057	710043	6962586	-85	60	71	0.0	40.0	40.0	29.2	0.70	Qtr PQ core
	BDDH058	710028	6962692	-85	60	71	0.0	40.0	40.0	28.7	0.65	Qtr PQ core
	BDDH059	709075	6965106	-85	240	71	0.0	40.0	40.0	31.8	0.85	Qtr PQ core
	BDDH060	709028	6965172	-90	000	71	0.0	40.0	40.0	34.6	0.72	Qtr PQ core
	BDDH061	708988	6965210	-85	60	71	0.0	40.0	40.0	31.5	0.69	Qtr PQ core
	BDDH062	708933	6965291	-80	240	71	0.0	40.0	40.0	15.9	0.48	Qtr PQ core
	BDDH063	708965	6965426	-70	240	71	0.0	40.0	40.0	17.7	0.58	Qtr PQ core
	BDDH064	708906	6965506	-85	60	71	0.0	40.0	40.0	30.9	0.76	Qtr PQ core
	BDDH065	708874	6965545	-90	000	71	0.0	40.0	40.0	7.5	0.30	Qtr PQ core
	BDDH066	708850	6965587	-85	240	71	0.0	40.0	40.0	34.4	0.66	Qtr PQ core
	BDDH067	708816	6965626	-80	240	71	0.0	40.0	40.0	27.5	0.64	Qtr PQ core
	BDDH068	708773	6965663	-80	240	71	0.0	40.0	40.0	33.6	0.64	Qtr PQ core
	BDDH069	708714	6965740	-70	60	71	0.0	40.0	40.0	27.9	0.56	Qtr PQ core

Table 3: Drilling and Assay Details - Barrambie Metallurgical Drilling (note: only samples 0 to 40m have been assayed to date)

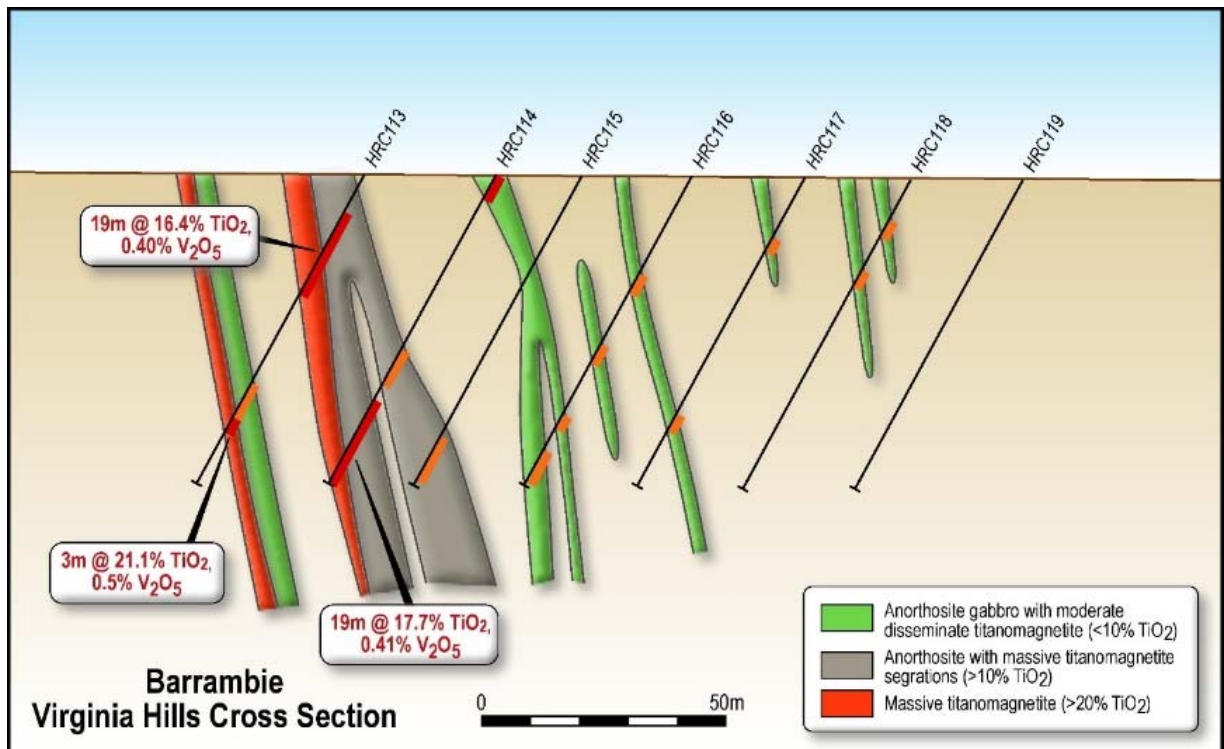


Figure 6: Maiden drill traverse at Virginia Hills, located 5km west of Barrambie titanomagnetite deposit.

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Target	Drill Hole Number	Co-ordinates GDA 94		dip	Azimuth	Depth	from (m)	to (m)	width (m)	TiO <sub>2</sub> % above 5% TiO <sub>2</sub>	V <sub>2</sub> O <sub>5</sub> %	sample	
		Easting	Northing										
Virginia Hills	VHRC113	705670	6961500	-60	240	71	0.0	28.0	28.0	14.1	0.35	composite RC	
							incl. 9.0	28.0	19.0	16.4	0.41	composite RC	
							48.0	59.0	11.0	10.1	0.33	composite RC	
	VHRC114	705690	6961517	-60	240	71	incl. 55.0	58.0	3.0	21.1	0.51	composite RC	
							0.0	6.0	6.0	8.4	0.54	composite RC	
							40.0	48.0	8.0	12.5	0.34	composite RC	
	VHRC115	705710	6961523	-60	240	71	incl. 44.0	47.0	3.0	17.5	0.46	composite RC	
							52.0	71.0	19.0	17.7	0.42	composite RC	
							58.0	71.0	13.0	14.7	0.31	composite RC	
	VHRC116	705730	6961535	-60	240	71	incl. 60.0	64.0	4.0	18.4	0.38	composite RC	
							24.0	26.0	2.0	8.9	0.65	composite RC	
							39.0	43.0	4.0	9.0	0.64	composite RC	
	VHRC117	705750	6961547	-60	240	71	54.0	57.0	3.0	10.5	0.73	composite RC	
							65.0	71.0	6.0	10.6	0.71	composite RC	
							16.0	18.0	2.0	8.2	0.65	composite RC	
	VHRC118	705770	6961558	-60	240	71	56.0	58.0	2.0	8.5	0.62	composite RC	
							10.0	12.0	2.0	6.0	0.56	composite RC	
							22.0	24.0	2.0	9.2	0.84	composite RC	
	VHRC119	705790	6961570	-60	240	71	0.0	24.0	2.0	9.2	0.84	composite RC	
0.0							0.0	0.0	NSI		composite RC		
Barrambie North	VHRC162	704500	6974710	-60	240	71	0.0	29.0	29.0	5.8	0.46	composite RC	
							52.0	59.0	7.0	5.7	0.21	composite RC	
							67.0	71.0	4.0	5.4	0.18	composite RC	
	VHRC163	704525	6974723	-60	240	71	0.0	21.0	21.0	6.3	0.49	composite RC	
							42.0	49.0	7.0	5.4	0.17	composite RC	
									0.0	NSI		composite RC	
	VHRC164	704550	6974736	-60	240	71							
	VHRC165	704575	6974750	-60	240	71	2.0	5.0	3.0	6.5	0.59	composite RC	
							20.0	26.0	6.0	8.3	0.77	composite RC	
	VHRC166	704600	6974763	-60	240	71	0.0	3.0	3.0	9.9	0.78	composite RC	
7.0							10.0	3.0	10.3	0.84	composite RC		
17.0							23.0	6.0	7.1	0.57	composite RC		
VHRC167	704625	6974776	-60	240	71	28.0	30.0	2.0	5.7	0.13	composite RC		
						0.0	38.0	38.0	5.5	0.53	composite RC		
								0.0	NSI		composite RC		
VHRC168	704650	6974790	-60	240	71								
Ballanhoe Hills	VHRC169	714730	6956020	-60	225	71			0.0	NSI		composite RC	
									0.0	NSI		composite RC	
									0.0	NSI		composite RC	
	VHRC170	714755	6956045	-60	225	71			0.0	NSI		composite RC	
									0.0	NSI		composite RC	
									0.0	NSI		composite RC	
	VHRC171	714780	6956070	-60	225	71			0.0	NSI		composite RC	
									0.0	NSI		composite RC	
									0.0	NSI		composite RC	
	VHRC172	714805	6956095	-60	225	71	8.0	11.0	3.0	6.5	0.59	composite RC	
							26.0	32.0	6.0	8.3	0.77	composite RC	
							6.0	9.0	3.0	9.9	0.78	composite RC	
	VHRC173	714830	6956120	-60	225	71	13.0	16.0	3.0	10.3	0.84	composite RC	
							23.0	29.0	6.0	7.0	0.57	composite RC	
							44.0	52.0	8.0	9.7	0.80	composite RC	
VHRC174	714855	6956145	-60	225	71	56.0	67.0	11.0	14.4	1.23	composite RC		
						0.0	5.0	5.0	6.9	0.47	composite RC		
						15.0	21.0	6.0	10.2	0.72	composite RC		
VHRC175	714880	6956170	-60	225	71	26.0	38.0	12.0	0.7	0.51	composite RC		
						61.0	69.0	8.0	11.1	0.85	composite RC		
						40.0	43.0	3.0	7.1	0.31	composite RC		
						50.0	52.0	2.0	5.6	0.35	composite RC		
						55.0	68.0	13.0	9.3	0.61	composite RC		

**Table 4: Drilling and Assay Details - Barrambie Resource Extension Drilling**

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JORC Table 1, Section 1, Sampling Techniques, and Data

Criteria	Commentary
Sampling techniques	The Barrambie resource extension drilling comprises 21 reverse circulation (RC) holes sampled on 1 m intervals. Drill cuttings were collected in a cyclone, passed through a cone splitter to create a sample 3 to 4 kg in weight for assaying. Metallurgical drilling comprises 20 PQ core holes. Core was ¼ cut for assaying in 1metre lengths.
Drilling techniques	Resource extension drilling was conducted by reverse circulation (RC) technique. Metallurgical drilling was conducted by PQ coring technique.
Drill sample recovery	A qualitative logging code was used to record recovery for the recent RC and DD drilling. Recovery of samples is considered to be good.
Logging	Geological logging of core and rock chips was carried out recording lithology, major minerals, oxidation, colour, texture, mineralisation, water and recovery. The logging was carried out in sufficient detail to meet the requirements of resource estimation and mining studies.
Sub-sampling techniques and sample preparation	All samples were dried, crushed to approximately 2mm, split and pulverised.
Quality of assay data and laboratory tests	No field QAQC data was conducted by Neometals. Intertek Genalysis conducted their own internal QAQC, with no issues being reported.
Verification of sampling and assaying	Data was recorded in the field on paper logs and transferred to individual .xls files prior to merging with project database. No twin holes were drilled and no verification of significant intersections by independent laboratories has been undertaken.
Location of data points	Drill collar and azimuth were pegged in the field using GDA94 system by independent surveyors.
Data spacing and distribution	Extension drill holes were spaced approximately on 30 metres centres across strike on three unrelated traverses. Metallurgical holes were spaced at 50m intervals along the strike of the Barrambie TiO <sub>2</sub> deposit.
Orientation of data in relation to geological structure	Extension holes were drilled across strike to achieve unbiased sampling of the known mineralised zone. Metallurgical holes were drilled within plane of the Barrambie mineralisation.
Sample security	Samples were stored onsite and transported to the laboratory on a regular basis by Neometals employees.
Audits or reviews	No audits or reviews of sampling techniques and data have been conducted.

JORC Table 1, Section 2, Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	The Barrambie mineralisation is within 100% owned granted mining lease M57/173 in the Eastern Murchison Goldfields. No known impediments exist to operate in the area.
Exploration done by other parties	No relevant exploration has been completed by other parties to acknowledge or appraise at this time.
Geology	The ferrovandium titanium (Ti-V-Fe) deposit occurs within the Archaean Barrambie Greenstone Belt, which is a narrow, NNW-SSE trending greenstone belt in the northern Yilgarn Craton. The linear greenstone belt is about 60 km long and attains a maximum width of

	<p>about 4 km. It is flanked by banded gneiss and granitoids. The mineralisation is hosted within a large layered, mafic intrusive complex (the Barrambie Igneous Complex), which has intruded into and is conformable with the general trend of the enclosing Greenstone Belt. From aeromagnetic data and regional geological mapping, it appears that this layered sill complex extends over a distance of at least 25 km into tenements to the north and south of M57/173. The layered sill varies in width from 500 m to 1700 m.</p> <p>The sill is comprised of anorthositic magnetite-bearing gabbros that intrude a sequence of metasediments, banded iron formation, metabasalts and metamorphosed felsic volcanics of the Barrambie Greenstone Belt. The metasediment unit forms the hanging-wall to the layered sill complex.</p> <p>Exposure is poor due to deep weathering, masking by laterite, widespread cover of transported regolith (wind-blown and water-borne sandy and silty clay), laterite scree and colluvium. Where remnant laterite profiles occur on low hills, there is ferricrete capping over a strongly weathered material that extends down to depths of 70 m.</p> <p>Ti-V-Fe mineralisation occurs as bands of cumulate aggregations of vanadiferous magnetite (martite)-ilmenite (leucoxene) in massive and disseminated layers and lenses.</p> <p>Within the tenement the layered deposit has been divided into five sections established at major fault offsets. Cross faults have displacements that range from a few metres to 400 m. The water table occurs at about 35 m below the surface (when measured where the laterite profile has been stripped).</p>
Drill hole Information	See Tables and Figures in body of announcement.
Data aggregation methods	<p>For the metallurgical drilling within the Barrambie high grade deposit, all assays for the portion of the hole assayed to date (0 to 40m) have been aggregated. Assays for the remainder of the holes (40 to 71m) are pending.</p> <p>For resource extension drilling, intervals that satisfy 2m at 5% TiO<sub>2</sub> have been reported.</p>
Relationship between mineralisation widths and intercept lengths	Resource extension holes have been drilled at an angle of 60 degrees from the horizontal toward grid west to achieve an approximate perpendicular intersection angle. Metallurgical holes were drilled entirely within the plane of the ore hence do not reflect true width of the orebody.
Diagrams	See body of announcement for Project geology, drill hole locations, schematic geology and drill cross sections.
Balanced reporting	All results have been reported.
Other substantive exploration data	See ASX announcement 6 December 2013 for further information regarding the Barrambie deposit. With respect to the recent exploration being reported here, no other data is considered material or meaningful for these.
Further work	No further exploration work is planned for the immediate future in the Barrambie area.