

ASX ANNOUNCEMENT

ASX CODE: MMX

22 December 2009

RESOURCES EXCEED EXPECTATIONS WITH 3.0 BILLION TONNES AT WORLD CLASS JACK HILLS PROJECT

Murchison Metals Limited (Murchison) is pleased to announce a significant Resource increase at the Jack Hills Project in which it holds a 50% interest through Crosslands Resources Ltd (Crosslands).

Total JORC compliant Mineral Resources at Jack Hills now stand at 3.0 billion tonnes.

Key highlights include:

- Major increase in overall project tonnes Jack Hills is now a large-scale, long life project
- Confirmation of 3 high value iron products
- A high iron yield to concentrates exhibited by the Beneficiation Feed Material (BFO) material
- Open at depth for both BFO and Direct Ship Material (DSO)

The total Mineral Resource is 3 billion tonnes at 31.7% Fe, more than 67% of which is in the Measured and Indicated JORC categories.

The Resource now comprises BFO of 2.86 billion tonnes at 30.6% Fe, DSO of 110 million tonnes at 56.9% Fe and near DSO material of 39 million tonnes at 45% Fe.

The Resource increase is the result of the recently completed exploration program that has been underway since April this year and has exceeded the previously announced exploration target.

Significantly, Crosslands has reported that the Resource remains open at depth and that additional BFO and DSO exploration targets have been identified in the project area. Work is now underway to better understand the further exploration potential, with an announcement expected in the first quarter of 2010.

Jack Hills hosts the largest iron Resource in the fast emerging mid-west iron ore province of Western Australia. Based on this Resource, Murchison is confident that Jack Hills will be a large scale, multidecade project yielding substantial cash flows and economic value.

Murchison Executive Chairman Paul Kopejtka said "the size and quality of the Jack Hills Resource will underwrite significant future value for Murchison shareholders.

"This Resource increase has shown that Jack Hills is the premier deposit in the mid-west iron ore province, with a substantial future production profile of international significance," said Mr Kopejtka.

"The sheer size of Jack Hills, coupled with the pivotal role that our 50% owned infrastructure business OPR will play in unlocking the value of mid-west iron ore deposits, demonstrates the pre-eminent role Murchison has in the development of the mid-west iron ore province.

"We expect that the output from Jack Hills will form a leading part of the foundation tonnages exported via the port and rail infrastructure to be constructed by OPR.



"I look forward to the final BFS for the project, due to be completed in 2010, confirming the potential we see at Jack Hills".

The Jack Hills Iron Ore Project is being developed by Crosslands Resources Ltd, which is 50% owned by Murchison.

A copy of the Crosslands media release with full details of the increased resource is attached to this statement.

-ends-

For further information, please contact:

Paul Kopejtka Executive Chairman Murchison Metals Ltd +61 8 9492 2600 John McGlue Director FD Third Person + 61 8 9386 1233

About Murchison

Murchison Metals Limited ("Murchison") is an Australian ASX listed company. Murchison is included in the S&P/ASX 200 Index.

Murchison is a 50% shareholder in Crosslands Resources Ltd ("Crosslands") which is the owner of the Jack Hills iron ore project located in the mid-west region of Western Australia. The remaining 50% of Crosslands is held by Mitsubishi Development Pty Ltd ("Mitsubishi"), a subsidiary of Mitsubishi Corporation, Japan's largest general trading company.

Murchison also has a 50% economic interest in Oakajee Port and Rail (OPR), an independent infrastructure business established to construct new port and rail infrastructure to provide logistics services to miners and other potential customers in the mid-west region of WA. The remaining 50% economic interest in OPR is held by Mitsubishi.

In addition to its investments in Crosslands, OPR and its Rocklea iron ore project (100% Murchison) located in the Pilbara, Murchison is actively exploring growth opportunities in iron ore, coal and manganese in accordance with its approved corporate strategy.





22 December 2009

CROSSLANDS TRIPLES JACK HILLS MINERAL RESOURCE - 3 BILLION TONNES

Crosslands Resources Ltd (Crosslands) is pleased to report completion of a new resource estimate for its Jack Hills Magnetite-Hematite iron deposit in the mid-west region of Western Australia. The resource is estimated to be triple its previous published size and has potential to expand further with numerous untested Exploration Targets identified.

The Jack Hills Mineral Resource is made up of Banded Iron Formation (BIF) previously referred to as BFO and Massive Iron Mineralisation (MIM) which includes Direct Shipping Ore (MIM-DSO) and potential Jig feed or BFO (MIM-JIG). Total in situ resources in all JORC classes Measured, Indicated and Inferred is estimated as follows:

Total Mineral Resource – 3.01 Billion tonnes @ 31.7% Fe,

The resource comprises:

BIF-BFO	2.86 Billion tonnes @ 30.6% Fe, at 22% Fe cut-off
MIM-JIG	39 Million tonnes @ 45% Fe, at 0-50% Fe
MIM-DSO	110 Million Tonnes @ 56.9% Fe, at 50% Fe cut-off

This new resource has exceeded expectations, the highlights being;

- A three-fold increase in Mineral Resource size;
- A significant uplift in confidence, with over 67% of resources converting to Measured and Indicated JORC categories;
- Higher iron yields to concentrates predicated by an increase in average DTRs;
- Amenability to bulk mining demonstrated, with broad widths and strong geological continuity of mineralisation defined; and,
- Prospective extensions to mineralisation established for further drill testing.

The Mineral Resource is summarised in Table 1 below. The Mineral Resource is estimated and classed in accordance with the JORC Code. Full details of the resource estimate, including JORC classification, are provided in Table 2 and 3 on pages 5 and 6.





			Dry							
	JORC	Cut-off	Tonnes	Fe	DTR					
	Category	% Fe	(x 10 ⁶)	%	%					
In Situ Banded Iron	Formation (BFC	D)								
	Measured	22	635.3	31.3	25.8					
	Indicated	22	1,289.6	29.3	24.6					
	Inferred	22	940.1	31.8	28.1					
Sub Total	All	22	2,864.9	30.6	26.0					
In Situ Massive Iron Mineralisation										
0 - 50% Fe, Potentia	l Jig feed or BFC) (MIM-JI	3)							
	Measured	0 to 50	6.6	45.5	34.7					
	Indicated	0 to 50	19.1	45.1	39.2					
	Inferred	0 to 50	13.6	44.7	46.9					
Sub Total	All	0 to 50	39.4	45.0	41.1					
>50% Fe, DSO (MIM	-DSO)									
	Measured	50	41.7	57.0	46.9					
	Indicated	50	43.5	57.2	35.0					
	Inferred	50	25.3	56.4	37.7					
Sub Total	All	50	110.5	56.9	40.1					

 Table 1: Mineral Resource Summary Table (Dec 2009, SRK Consulting).

Total	Measured	683.6	33.0	27.2
Total	Indicated	1,352.3	30.5	25.2
Total	Inferred	979.0	32.6	28.6
Total	All	3,014.8	31.7	26.7

The updated Mineral Resource covers the area of Mt Matthew to North East Ridge, a strike length of some 7km (Figure 3, page 6).

The improved Mineral Resource quality and size reflects:

- Incorporation of data from the initial phase of a major \$30M exploration program (Figure 1, page 4), which commenced in April 2009 across the company's Jack Hills iron ore tenements.
- Inclusion of a significant hematite component in the resource inventory excluded until now – following extensive metallurgical testwork confirming the ability to recover the non-magnetic hematite in addition to the previously identified magnetically recoverable fraction.

In addition to an increase in resource size, and as a result of the additional drilling, the new model indicates a large proportion (67% of the total Mineral Resource) has now been converted to the Measured and Indicated JORC categories; this is a significant uplift in confidence achieved through drilling in 2009. Only 37% of the previous estimate, which

Page 2 / 7

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was only one third the size of the new Mineral Resource, was previously classed in the Measured and Indicated categories.

The higher average magnetic recovery (i.e. Davis Tube Recovery – DTR) indicates further improved mining economics. The new resource average DTR is 26% at the 22% Fe cut-off grade; an approximate 10% improvement in predicted magnetic recoverable Fe from previous estimates. This is despite inclusion in the resource of the hematite component which in many cases has a low magnetic response.

Resource Drilling and Modelling

Minimum drill spacing throughout the resource area was ~200m, while the southern portion of the deposit is extensively drilled to a 30 - 50m spacing (Figure 1, page 4). 3D geological models were constructed integrating surface mapping and drilling. The BIF rock units are demonstrated to be amenable to bulk mining having widths of 20 - 200m, and strong strike and vertical continuity (Figure 2, page 4).

Resource estimation was conducted using methodologies consistent with planned bulk mining parameters; block modelling used 25m x 25m x 10m blocks with grades interpolated through ordinary kriging.

Beneficiation Operations

Beneficiation operations are being designed to recover both magnetite and hematite fractions to produce two saleable products. Based on pilot scale laboratory testwork at the reported BFO resource iron grade (30.6% Fe) and DTR (26 wt%) the predicted combined magnetite and hematite Fe yield is 78%.

The advantages of the Crosslands resource include:

- Achievement of saleable grade at a coarse grind size,
- A low strip ratio.

Competitive advantages of the deposit and proposed processing operations include;

- Standard, low risk processing technologies;
- Separate hematite and magnetite products, at different grind sizes, to allow penetration into both the sinter and pellet feed markets;
- Lower grinding power requirements;
- Highly attractive chemistry with very low phosphorous and alumina expected in both products.

Ongoing Resource Definition

The 2009 Jack Hills exploration program is ongoing into 2010 and continues to returned positive results. The objective of the current phase of drilling is focused on infill drilling of the established resource for mine planning purposes. In addition, exploration drilling is focused on new high grade BFO and DSO across the Jack Hills tenements.

Importantly the Jack Hills deposit remains open at depth and new DSO and BFO targets have been identified along strike between the Brindal deposit and Mt Hale. Drilling is currently underway at Brindal (Figure 3, page 6).

Page 3 / 7

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Figure 1: Drill coverage included in the new resource estimate. Holes collars illustrated as black dots indicate drilling available in the previous (February 2009) resource update; holes in red illustrate new holes incorporate into this update (data input for modeling closed 22nd October, 2009). Drilling is ongoing.

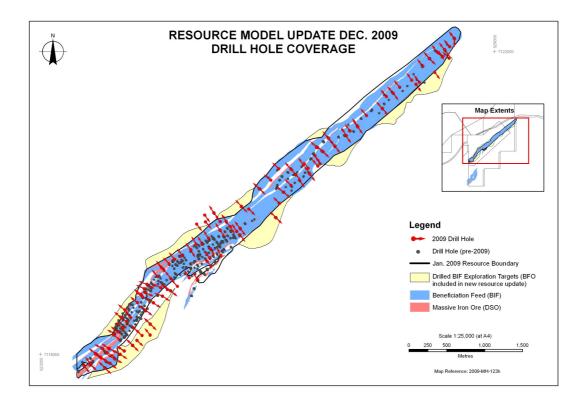
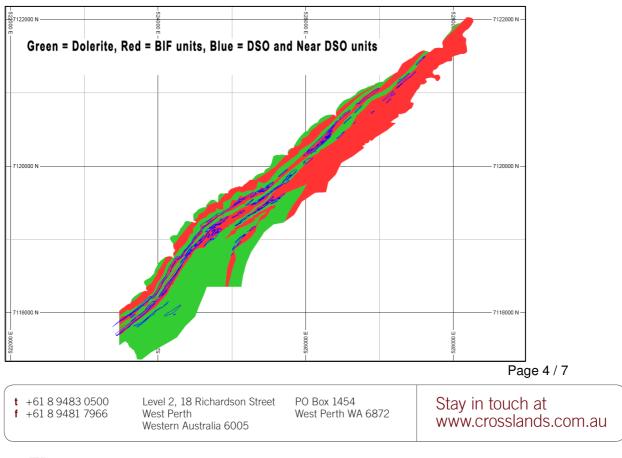


Figure 2: Plan View of Resource Model Geological Wireframes at 500m RL



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Jack Hills Magnetite & Hematite Iron Ore Deposit											
	December, 2009 Mineral Resource Estimate ¹										
Weathering	JORC	Cut-off	Dry Tonnes ⁴	Fe	SiO2	Al2O3	Р	LOI	MgO	DTR ⁵	
Domain	Category	% Fe	(x 10 ⁶)	%	%	%	%	%	%	%	
In Situ Banded Iron Formation ² (BFO)											
Oxidised	Measured	22	4.9	34.9	41.8	3.0	0.02	3.5	1.3	2.7	
Oxidised	Indicated	22	8.0	30.3	48.3	3.1	0.02	3.1	1.0	3.1	
Oxidised	Inferred	22	62.7	31.4	47.8	2.9	0.02	2.9	1.1	2.3	
Transitional	Measured	22	156.0	32.5	45.4	1.1	0.02	2.4	3.9	17.5	
Transitional	Indicated	22	346.9	28.8	52.3	1.1	0.02	1.5	2.9	16.4	
Transitional	Inferred	22	72.4	31.0	47.8	1.2	0.02	1.7	2.9	20.3	
Fresh	Measured	22	474.4	30.9	41.9	0.7	0.03	4.3	7.7	28.7	
Fresh	Indicated	22	934.7	29.5	46.6	0.7	0.02	2.7	5.8	27.9	
Fresh	Inferred	22	805.0	31.9	41.8	0.9	0.03	3.1	6.5	30.8	
Total	Measured	22	635.3	31.3	42.7	0.8	0.03	3.8	6.7	25.8	
Total	Indicated	22	1,289.6	29.3	48.1	0.8	0.02	2.4	5.0	24.6	
Total	Inferred	22	940.1	31.8	42.6	1.0	0.03	3.0	5.8	28.1	
Total	All	22	2,864.9	30.6	45.2	0.9	0.03	2.9	5.6	26.0	
		In Sit	u Massive Iron	Mineral	lisation ³						
			MIM DSO >	50% Fe							
Total	Measured	50	41.7	57.0	6.1	0.6	0.07	4.8	6.5	46.9	
Total	Indicated	50	43.5	57.2	7.7	0.8	0.06	4.2	5.0	35.0	
Total	Inferred	50	25.3	56.4	9.0	0.8	0.05	3.7	4.7	37.7	
Total	All	50	110.5	56.9	7.4	0.7	0.06	4.3	5.5	40.1	
			MIM JIG 0 -	50% Fe		-			-		
Total	Measured	0 to 50	6.6	45.5	11.2	0.8	0.04	9.6	12.1	34.7	
Total	Indicated	0 to 50	19.1	45.1	16.1	0.7	0.05	7.8	10.7	39.2	
Total	Inferred	0 to 50	13.6	44.7	18.8	0.6	0.04	6.8	9.3	46.9	
Total	All	0 to 50	39.4	45.0	16.2	0.7	0.04	7.8	10.5	41.1	

Table 2: Detailed Breakdown of Total Mineral Resources; Banded Iron Formation at >22%
Cut-off Grade and Massive Iron Mineralisation (DSO) at >50%Fe (Dec 2009, SRK Consulting).

Total In Situ Banded Iron Formation + Massive Iron Mineralisation										
Total	Measured		683.6	33.0	40.2	0.8	0.03	3.9	6.7	27.2
Total	Indicated		1,352.3	30.5	46.4	0.8	0.03	2.5	5.0	25.2
Total	Inferred		979.0	32.6	41.4	1.0	0.03	3.0	5.9	28.6
Total	All		3,014.8	31.7	43.4	0.9	0.03	3.0	5.7	26.7
			Mine Stoc	kpiles						
High Grade	Measured	>58	0.1	64.4	3.7	0.3	0.08	1.4	2.2	
Med Grade	Inferred	50 - 58	0.3	56.7	9.6	0.0	0.06	3.2	3.4	
Low Grade	Inferred	22 - 50	3.3	36.6	38.9	0.8	0.04	2.5	3.5	

1 Mineral Resources are based on drilling & assaying completed on 22 October, 2009 and actual pit limit surveyed on 30 November, 2009

2 Banded Iron Formation (BIF), previously reported as BFO

3 Massive Iron Mineralisation, previously reported as DSO.

4 Tonnages are dry metric tonnes. Tonnages have been rounded, hence small difference may be present in the totals

5 DTR = Davis Tube Recovery. No DTR data is available for the stockpiles

In Situ Mineral Resources were compiled by Mr Roland Bartsch, a full time employee of Crosslands Resources Ltd., and Mr Bruce Sommerville, a full time employee of SRK Consulting. Mr Bartsch was responsible for the data collection and geological interpretations; Mr Sommerville was responsible for the grade estimation and classification. Stockpile resources were compiled by Mr Bartsch. Both Mr Bartsch and Mr Sommerville are Competent Persons as Defined by the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

Page 5 / 7

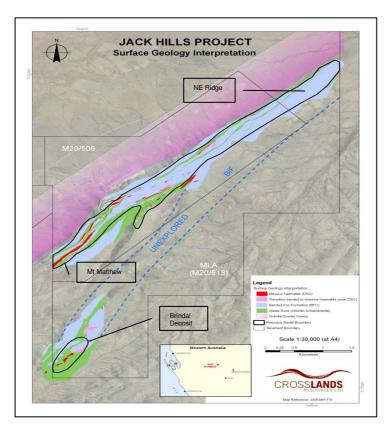
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Table 3: Comparison of BIF Mineral Resources Summary Totals at >22% Fe versus >28% Fe
Cut-off Grades. (Dec 2009, SRK Consulting)

	Jack Hills Magnetite & Hematite Iron Ore Deposit December, 2009 Mineral Resource Estimate											
	JORC	Cut-off	Dry Tonnes	Fe	SiO2	Al2O3	P	LOI	MgO	DTR		
	Category	% Fe	(x 10 ⁶)	%	%	%	%	%	%	%		
	In Situ Banded Iron Formation											
			>22	% Fe								
	Measured	22	635.3	31.3	42.7	0.8	0.03	3.8	6.7	25.8		
	Indicated	22	1,289.6	29.3	48.1	0.8	0.02	2.4	5.0	24.6		
	Inferred	22	940.1	31.8	42.6	1.0	0.03	3.0	5.8	28.1		
Total	All	22	2,864.9	30.6	45.2	0.9	0.03	2.9	5.6	26.0		
			>28	% Fe								
	Measured	28	453.8	33.7	37.9	0.8	0.03	4.5	7.4	26.4		
	Indicated	28	692.0	32.9	41.7	0.7	0.03	3.0	5.7	26.1		
	Inferred	28	676.6	34.5	38.1	0.9	0.03	3.3	6.4	30.1		
Total	All	28	1,822.3	33.7	39.4	0.8	0.03	3.5	6.4	27.6		

Figure 3: Map of Jack Hills Project Highlighting Brindal Deposit and potential exploration areas.



Page 6 / 7

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A 50/50 joint venture between Murchison Metals Ltd and Mitsubishi Development Pty Ltd. Crosslands Resources Ltd ABN 66 061 262 397

Competent Persons' Statement

The information in this announcement that relates to Exploration Results and geological and mineralogical interpretations of the Mineral Resource estimate of the Jack Hills Project is based on information compiled by Mr Roland Bartsch. Mr Bartsch is a full time employee of Crosslands Resources Ltd and is a Member of the Australasian Institute of Mining & Metallurgy.

The information in this announcement that relates to Mineral Resources of the Jack Hills Project is based on information compiled by Mr Bruce Sommerville in his capacity as an employee of SRK Consulting. Mr Sommerville is a Member of the Australasian Institute Geoscientists.

Mr Bartsch and Mr Sommerville have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as competent persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr Bartsch and *Mr* Sommerville consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

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Reference List

- Sommerville, B., SRK Consulting Dec 2009. (*report in preparation*) Jack Hills Magnetite & Hematite Iron Ore Deposit, Western Australia, Resource Estimate
- Allen, C., CSA Global Pty Ltd Geological Consultants Jan 2009. Mount Hale Iron Ore Deposit Jack Hills, Western Australia, Magnetite Resource Estimate.

About Crosslands

Crosslands Resources Ltd ("Crosslands") is the owner of the Jack Hills iron ore project located in the mid-west region of Western Australia. Crosslands is jointly owned by ASX listed Murchison Metals Ltd ("Murchison") and Mitsubishi Development Pty Ltd ("Mitsubishi"), a subsidiary of Mitsubishi Corporation, Japan's largest general trading company.

In addition, Crosslands, Murchison and Mitsubishi have established a new independent infrastructure business, Oakajee Port and Rail (OP+R).

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Page 7 / 7

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