



BLACKHAM
RESOURCES LIMITED

ASX ANNOUNCEMENT
8 October 2012

METALLURGY TESTWORK CONFIRMS MATILDA ORE AS FREE MILLING

- **Gravity and leach test work indicates average recoveries of 87%**
 - **Oxide average recovery 92%**
 - **Sulphide average recovery 82%**
- **Test work ongoing to optimise flow sheet and improve recoveries**
- **Consistent with the 2.6Mt of ore processed through the historical Matilda carbon in leach plant**

Blackham Resources Ltd (ASX Code: **BLK**) is pleased to report the first results of its scoping level metallurgy test work programme at the Matilda Mine as overseen by its consultants Independent Metallurgical Operations Pty Ltd. The combined gravity and leaching test work on six composite samples from a range of ore types resulted in an 87% average recovery. The average oxide recovery was 92% and sulphide/transitional average was 82% (see Table 3).

Previously the Matilda carbon in leach (CIL) plant processed 2.6Mt of ore at an average grade of 2.35 g/t au at 84% average recovery for gold production of 162,000oz of gold over a 6 year period. Ore processed consisted mainly of oxide material but in the order of 500,000 tonnes of fresh and transitional ore was processed through the historical CIL plant. In 1992, the final year of operation, 596,000 tonnes of ore was processed with an average recovery of 92%.

Testing was conducted on the six ore composites on a whole of ore leaching basis as well as a combined gravity / CIL basis. In all cases the gravity / CIL process delivered higher recoveries, lower reagent consumptions and faster extraction kinetics. Test work is ongoing to further optimise the process flow sheet. The leach test work did not include activated carbon which is expected to further improve recoveries.

Table 1: Head assay analysis of BLK MET samples 1 to 6

Composite	Au	Au(R)	Ag	Hg	Cd	As	Cu	Total Carbon	Total Organic Carbon	S	S ²⁻
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	%	%
1 - sulphide	1.60	1.43	28.4	1.5	44	8520	305	0.113	0.09	15.9	15.8
2 - sulphide	1.26	1.28	0.5	0.1	<1	2620	248	0.178	0.02	2.40	2.30
3 – sulphide/ transitional	2.05	1.93	0.4	0.3	1	1800	223	<0.005	<0.01	0.263	0.20
4 - oxide	2.05	2.11	0.3	3.8	<1	1240	175	0.469	0.02	0.018	<0.1
5 - oxide	3.75	3.85	0.2	0.4	<1	2310	207	0.040	0.04	0.038	<0.1
6 - oxide	0.90	0.84	0.6	1.1	<1	559	198	1.10	0.03	0.018	<0.1

Samples selected for composites were designed to give a fair representation of the different ore types and grades across the deposits at the Matilda Mine from recent drilling. Composite 1 was specifically selected to test a “worst-case” sulphide scenario. This sample is from outside the optimised pit areas but was included to test the recovery of gold from an extremely high sulphide intersection.

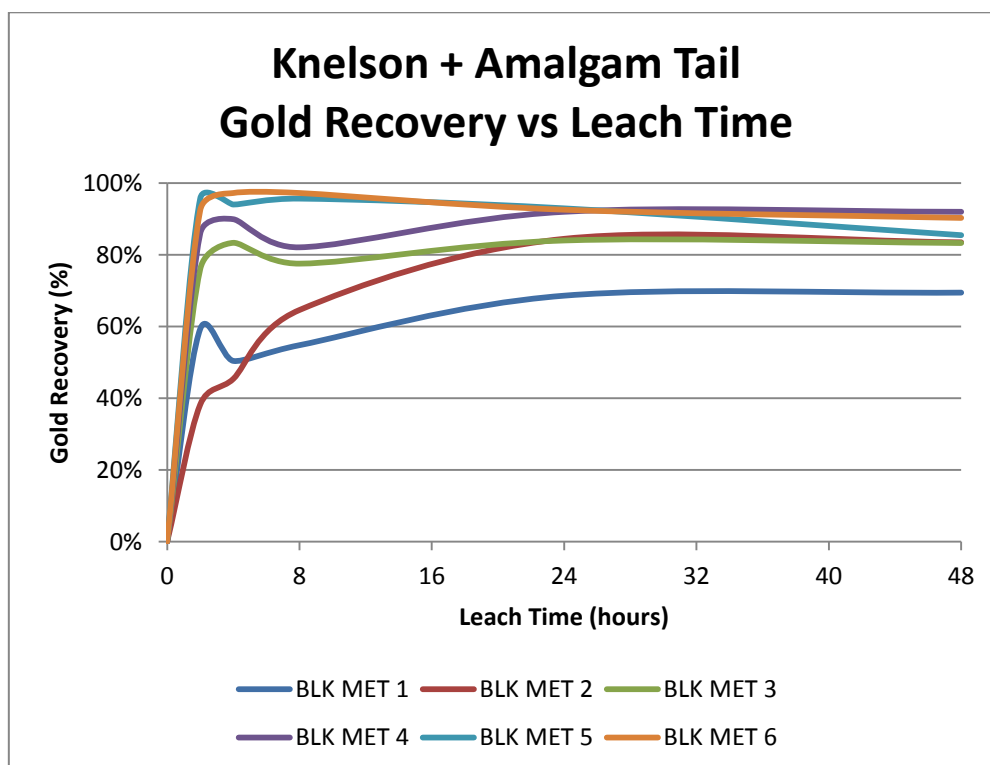
Table 2: Test Work Parameters

Parameter	Condition
Leach Time	48 hours
Leach Sample Times	2, 4, 8, 24 & 48 hours
Leach Weight	1000 g
Grind Size	80% passing 75 µm
Pulp Density	40
Target pH	10.5-11.0
Target NaCN Concentration	500 ppm
Target Dissolved Oxygen	8 ppm

The metallurgical test work also identified a positive variation between the calculated head grade based upon the 5kg leaching analysis sample and the 50g initial assay which indicated the presence of coarse gold as confirmed by the gravity separation test work. The calculated head grade (large sample) was higher for all samples on average by 41% (range 11 to 75% higher).

Table 3: Combined Gravity + Leach Test Analysis

Composite	Gravity Grind Size (P ₈₀ , µm)	Leach Grind Size (P ₈₀ , µm)	Gravity Gold (Amalgam)		Knelson + Amalgam Tail Leached		Knelson + Amalgam Tail Leach Residue		Combined Gravity + Leach Recovery		Calc Head Assay (g/t)
			(g/t)	Dist (%)	(g/t)	Dist (%)	(g/t)	Dist (%)	(g/t)	(%)	
1 - sulphide	300	75	0.25	13.0	1.16	60.4	0.51	26.6	1.41	73.4	1.92
2 - sulphide	300	75	0.52	26.2	1.21	61.5	0.24	12.2	1.73	87.8	1.97
3 – sulphide/ transitional	300	75	0.45	18.0	1.69	68.3	0.34	13.7	2.14	86.3	2.48
4 - oxide	300	75	0.13	4.6	2.41	87.7	0.21	7.6	2.54	92.4	2.75
5 - oxide	300	75	1.01	27.4	2.29	62.0	0.39	10.6	3.30	89.4	3.69
6 - oxide	300	75	0.20	24.4	0.56	68.3	0.06	7.3	0.76	92.7	0.82
Average										87.0	
Oxide avg										91.5	
Sulphide avg										82.5	



Update on Development Activities

The Company has commenced mining studies of the Matilda Mine. The initial metallurgical test work and historical production and processing data provides confidence that it is technically feasible for a conventional gravity / CIL plant to be put back at the Matilda Mine to allow it to process all types of Matilda and Williamson ore plus the oxide and transitional ore from the Regent deposit.

The 2005 Williamson feasibility study concluded all rock types at the Williamson deposit are free milling. Significant test work was undertaken to confirm this. The 664,000t of oxide and transitional ore was also processed through the Wiluna Gold Plant oxide and CIL circuit during 2005/2006. The Williamson feasibility study concludes expected recoveries from a straight CIL leach in Table 3.

Metallurgical test work has also been completed on the Regent deposit. This test work also confirms the oxide and transitional ore is free milling. The expected Regent recoveries are also seen in Table 4.

Table 4: Expected Metallurgical Recoveries	Williamson	Regent
Gold - Oxide	94.9%	95.0%
Gold - Upper Tran	94.6%	90.0%
Gold - Lower Tran	90.0%	90.0%
Gold - Fresh	90.0%	?

The Matilda Gold Project Resource Estimate has grown to **23Mt** at **1.9g/t** for **1.4Moz** Au on mainly shallow gold (Table 5). The free milling resources are estimated at 19.7Mt @ 1.8g/t for **1,156,000oz au** or about **83%** of the total resource. The refractory resource at Regent is located within 10km of the Wiluna Gold Plant refractory circuit.

Table 5: Matilda Gold Project Resources								
Mining Centre	Indicated Tonnes	g/t Au	Inferred Tonnes	g/t Au	Total Tonnes	g/t Au	Contained Oz. Au	Free Milling Oz. Au
Matilda Mine	1,943,000	1.9	10,295,000	1.7	12,238,000	1.7	683,000	683,000
Williamson Mine			6,001,000	1.9	6,001,000	1.9	364,000	364,000
Regent	738,000	2.5	3,108,000	2.1	3,846,000	2.2	270,000	78,000
Galaxy			884,000	2.7	884,000	2.7	77,000	31,000
TOTAL	2,681,000	2.1	20,288,000	1.9	22,969,000	1.9	1,394,000	1,156,000

Rounding errors may occur - grades to 2 significant digits in this table.

As the Company shifts its focus towards development, priority will be given to improving the confidence of resources and ultimately converting resources into reserves. To this end, infill and extension drilling programs are currently in progress around the M1, M3 and M4 deposits. As part of this drilling programme more sample will be collected for further prefeasibility metallurgical and optimisation studies. Following this drilling programme the resources will be re-estimated.

Blackham management and consultants are currently focused on completing a scoping study of the various options for development of the Matilda Gold Project. The 3 main mining centres within the project are all within 10km by existing haul roads of the old Matilda plant footprint and its infrastructure and 26kms by existing haul roads of the Wiluna Gold Plant. The Scoping study is expected to be finalised by the end of October.

The Company is delighted with the rapid progress of the Matilda Gold Project. In less than 12 months the resources have grown over 350%. The Company's focus is now on the development of the Matilda Gold Project whilst continuing to explore the high grade underground potential that is yet to be systematically investigated.

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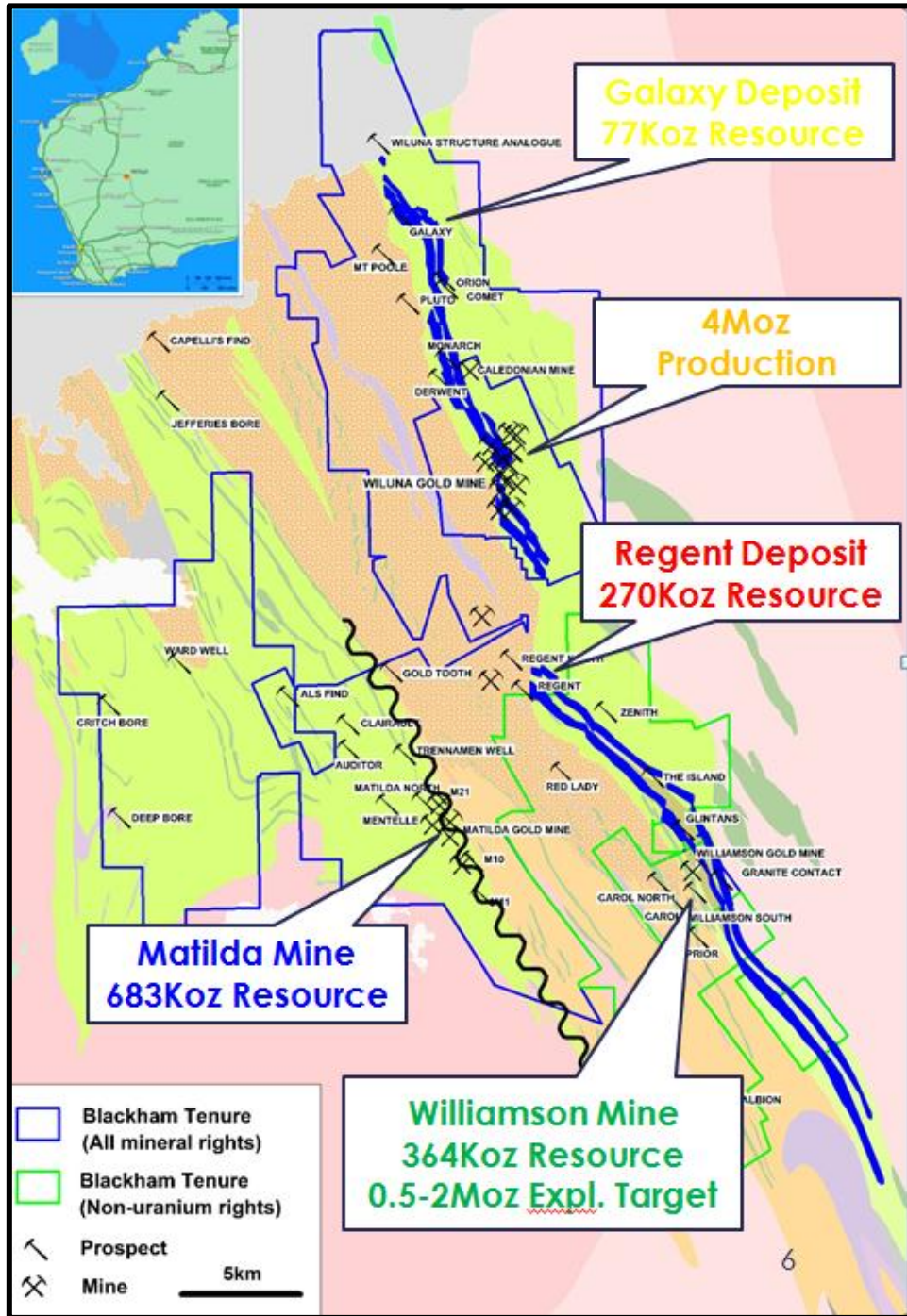


Figure 4: Matilda Gold Project Tenure Plan

Competent Persons Statement

The information contained in the report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled or reviewed by Mr Greg Miles and Mr Cain Fogarty, who are both employees of the Company. Both Mr Miles and Mr Fogarty are Members of the Australian Institute of Geoscientists and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Both Mr Miles and Mr Fogarty have given consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information contained in the report that relates to the Regent and Matilda Mine Mineral Resources is based on information compiled or reviewed by Mr Aaron Green, of Runge Ltd. Mr Green is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Green has given consent to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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