ABN 46 006 045 790

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## **ASX ANNOUNCEMENT**

# Maiden Reserve for Catho Well Channel Iron Deposit, West Pilbara WA

Cullen Resources Limited (ASX:CUL) (Cullen) is pleased to report the maiden JORC Ore Reserve Estimate for the Catho Well Channel Iron Deposit (CID) which is part of the West Pilbara Iron Ore Project (WPIOP) – Stage 1. Cullen owns 30% of the Catho Well CID, in the Mt Stuart Joint Venture (MSJV) managed by Australian Premium Iron Joint Venture (APIJV). Aquila Resources Limited (ASX:AQA) is a 50% owner of the APIJV and released the Maiden Reserve estimate for the WPIOP, which includes the Catho Well deposit, on 3<sup>rd</sup> December, 2010. The Reserve Estimate for the Catho Well CID specifically, was provided by the Manager of the MSJV to Cullen on 10<sup>th</sup> December, 2010 and has been reviewed and is reported herein.

## Mt Stuart Joint Venture - MAIDEN ORE RESERVE STATEMENT

## **Highlights**

- Maiden JORC Ore Reserve Estimate for the Catho Well CID of 70 Mt at 54.8%
   Fe of Proven and Probable Reserves.
- Reserve estimate based on updated Mineral Resource estimate released in October 2010.
- Ore derived from the MSJV contributes to the main, blended product stream maintaining an average 57.1% Fe throughout the life of the WPIOP - Stage 1 mining operations.

Table 1 –Mt Stuart Joint Venture Ore Reserve Estimate

Product	Category	Tonnes Mt	Fe %	Al2O3 %	SiO2 %	P %	LOI %
Product 1	Proven	1	55.28	3.33	6.57	0.043	10.03
	Probable	69	54.80	3.23	7.23	0.037	10.31
	Total	70	54.81	3.23	7.22	0.037	10.30
TOTAL	Proven	1	55.28	3.33	6.57	0.043	10.03
	Probable	69	54.80	3.23	7.23	0.037	10.31
	Total	70	54.81	3.23	7.22	0.037	10.30

# Reserve Estimation – Mt Stuart Joint Venture and the West Pilbara Iron Ore Project - Stage 1 Development

ORElogy, an independent mine planning consultancy, has completed a Reserve estimate for the Mt Stuart Joint Venture based on the eight Channel Iron Deposits within the WPIOP – Stage 1 development area. The MSJV Ore Reserve estimate is based on the Catho Well CID and is a subset of the total WPIOP – Stage 1 Ore Reserve.

The Ore Reserve has been prepared in accordance with the Australasian JORC 2004 (Joint Ore Reserves Committee) code. The Ore Reserve has been classified as Proven and Probable based on the Measured and Indicated Mineral Resource classifications respectively. Inferred Mineral Resources have not been included in the Ore Reserve estimation.

The Ore Reserve estimate attributable to the MSJV is detailed in Table 1

As previously stated the Ore Reserve has been estimated by incorporating all deposits within the WPIOP – Stage 1 development area in order to achieve the targeted blended product grade specifications. The attributable MSJV Ore Reserve represents 16% of the total WPIOP – Stage 1 Proven and Probable Reserve totaling 445 Mt. The MSJV Ore Reserve has been derived from the Catho Well CID.

The WPIOP – Stage 1 Ore Reserve is reported as two products;

- Product 1 representing the main production stream maintaining an average 57.1% Fe throughout the life of the WPIOP - Stage 1 mining operations, and;
- Product 2 a lower grade product stockpiled throughout the mining operation and shipped following the completion of Product 1 Ore sales based on an annual average product grade of 55% Fe.

Ore derived from the MSJV contributes to the main product stream (Product 1). No material has been scheduled for the lower grade Product 2 from the Catho Well deposit. A two product stream has been modelled for the broader WPIOP – Stage 1 in order to maximise the Ore Reserve.

The MSJV Ore Reserve has been reported as the Ore produced and contributing to the production of the WPIOP – Stage 1 blended products. Variation between the MSJV Ore Reserve grades reported above and the Product 1 specification has resulted from the separation of Ore contributed by the Red Hill (Jewel, Cochrane, Cardo Bore North, Cardo Bore East, Upper Cane, Kens Bore (partial), Catho Well (partial) and Trinity Bore CID) and API Joint Venture's (Kens Bore East CID).

#### **Ore Reserve Parameters**

The Ore Reserve estimate in Table 1 has taken into account the following parameters:

- Updated resource block models for all deposits within the WPIOP Stage 1 development area. These resource models utilise the most up-to-date information provided by API to ORElogy;
- Mining Study version 5 information, which includes current mining methods, costs, recovery and geotechnical information;
- A review of all pit optimisations using the above information;
- Re-designed ultimate pits for each resource;
- Mineable reserves using only measured and indicated resources; and
- A life-of-mine schedule that meets the product specification requirements in a practical and achievable manner, throughout the life of the operation.

## Pit Optimisation, Mine Design and Scheduling

The Ore Reserve reported is within pit designs based on shell selection from Whittle 4X pit optimisations carried out on Measured and Indicated Mineral Resources only. The resource models used for the pit optimisations were prepared by Golder Associates and reported in October 2010 (ASX release 29 October 2010). The regularised block size used for all models was 25m x 25m x 4m reflecting the scale of mining to be used. Mining models were created using MineSight software. The mining models were exported to Whittle 4X for pit optimisation and subsequent pit shell selection.

The pit design and optimisation criteria used are detailed in Tables 2 and 3 and are based on appropriate studies completed in preparation of a WPIOP feasibility study. The revenues and costs may differ as between the different participants in the joint ventures that make-up the WPIOP.

Table 2 – Pit Design Criteria

Pit Design Criteria					
Design Item	Unit	Value			
Batter Angle	deg	65			
Batter Height	m	16			
Berm Width	m	4			
Max Inter-ramp Distance	m	No Limit			
Overall Slope Angle	deg	54.4			
Ramp / Haulroad Width	m	37			
Ramp / Haulroad Driving Surface	m	27			
Ramp / Haulroad Gradient	ratio	1 in 10			
Minimum distance pit edge – lease boundary	m	30			

Table 3 – Pit Optimisation Input Parameters

Optimisation Parameter	Unit	Value	
Revenue Product 1	A\$/t product	84.24	
Revenue Product 2	A\$/t product	60.47	
Mining costs	A\$/t mined	2.78	
Processing & Logistics costs	A\$/t product	11.88	
Overall Slope Angle	Deg	55	
Mining Losses	%	9.5	
Dilution	%	0	
Metallurgical Recovery	%	100	
Discount Rate	%	10	
Resource Class	#	1 and 2	

The pit optimisation incorporated an ore loss factor of 9.5%. This approach centres on maintaining product quality and the preference to account for higher ore loss rather than suffer dilution that would negatively impact product quality.

The optimal shells generated were used as the base for pit and stage design. Mine scheduling was undertaken using evORElution scheduling software, with the aim to confirm the ability to produce 30Mtpa of primary product from the pit designs. The scheduling is based on annual reporting periods and the following scheduling philosophy:

- The WPIOP Stage 1 is split into 3 distinct mining areas that is, north (Cochrane and Jewel), central (Kens Bore, Cardo Bore North, Cardo Bore East and Upper Cane) and south (Trinity Bore and Catho Well);
- Ore is mined from each of the northern and southern areas at the average grade of the
  combined resources in each region. Ore from the central area is mined at such a rate and
  from the appropriate locations to ensure a consistent overall grade is maintained during the
  course of each year and over the life of the mine;
- Once mining in all areas is concluded, the rehandle of stockpiled second product will commence;
- All stockpiled ores will be transported to the Central Processing Facility.

The updated resource estimates used in determining the Ore Reserve has resulted in a low waste to ore ratio. The final pit designs, for all deposits, produced a waste to ore strip ration of 1.13:1 for the WPIOP – Stage 1 mine development

At this stage, no decisions have been taken by the Participants in the MSJV as to the scope of the development of the Catho Well CID. The Feasibility Study for the MSJV Project will progress with the incorporation of this maiden Reserve and the underlying mine schedule, as well as additional work undertaken. The Feasibility Study, scheduled for completion early 2011, will include a scenario which assumes ownership of Cullen's run-of-mine ore will be transferred at the Mine Gate.

## Dr Chris Ringrose, Managing Director, +61 8 9474 5511

#### ATTRIBUTION -

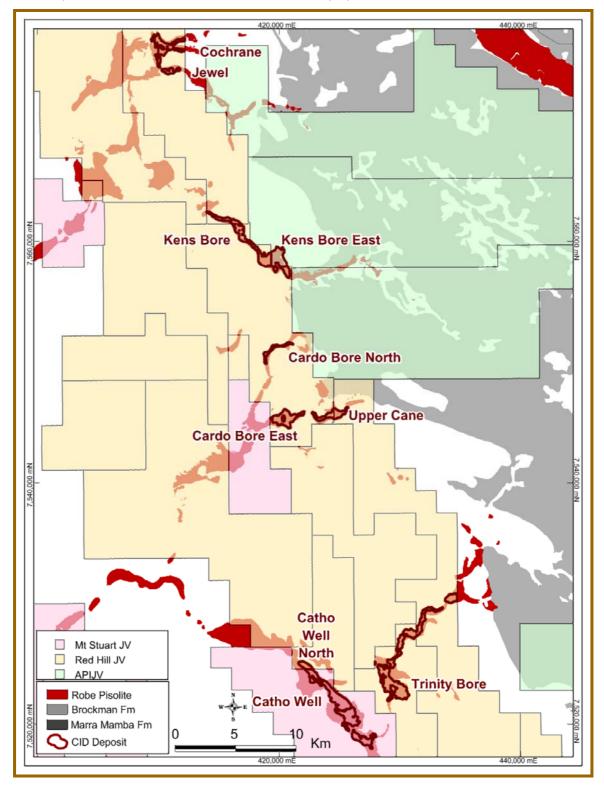
### **Competent Person Statement**

The information in this report that relates to Exploration Results is based on information compiled by Dr Chris Ringrose, Managing Director, Cullen Resources Ltd who is a Member of the Australian Institute of Mining and Metallurgy. Dr. Ringrose is a full time employee of Cullen Resources Ltd. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined by the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr. Ringrose consents to the report being issued in the form and context in which it appears.

## Competent Person Statement

The information in this release that relates to Ore Reserves is based on information compiled by Mr Steve Craig, Managing Director of ORElogy (Mining Consultants). Mr Craig is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Craig consents to the inclusion of the matters based on his information in the form and context in which it appears in this release.

Figure 1 – WPIOP Stage 1 Development – CID Deposit Locations, for the Mt Stuart, Red Hill and API Joint Ventures, incorporated into the Maiden Reserve Statement released by Aquila Resources Limited on 3<sup>rd</sup> December



# Attachment A – Ore Reserve Criteria

	ESTIMATION AND REPORTING OF ORE RESERVES			
Mineral Resource Estimate for Conversion to Ore Reserves Study Status	The resource estimate was prepared by Golder & Associates Pty Ltd in September 2010.  Australian Premium Iron Management Pty Ltd (API) has completed sufficient studies that have determined that the mine plan is technically achievable and economically viable and that all modifying factors have been considered.			
Cut-off Parameters	The applied cut-off grades have been described in detail and account for all of the relevant parameters.			
Mining & Metallurgical Factors	The resource was optimised using WHITTLE pit optimisation software. The results were checked and validated and provide the basis for mine design. Detailed staged and ultimate designs were developed on this basis.			
	The choice and nature of mining method is based on using large open pit mining equipment. This method is considered appropriate for the style of mineralisation and has been applied to other similar operations in the area.			
	All geotechnical parameters have been supplied by API and include design criteria for batter and overall slopes which have been included as part of the mine design process.			
	All other modifying parameters including mine dilution, mining recovery, minimum mining widths have been carefully calculated based on ore body geometry, mining methods and bench heights.			
	The capital and operating costs have been estimated by Worley Parsons and have been used during the pit optimisation process which provides the basis for detailed mine design.			
Marketing assessments	Metal prices have been provided by API and have been derived from marketing research.			
	A state royalty of 5.625% has been used to derive a net price for optimisation purposes.  Detailed marketing assessments have been undertaken which support consumption trends and other factors which will affect future supply and demand.			
Other	All other factors including risk assessments, environmental studies, legal, social and governmental issues have been accounted for in studies complete and to be described in the Mt Stuart Joint Venture FS.			
Classification	The Ore Reserve estimate is based only on Measured and Indicated ore.			
Audits/Reviews	No audits have been completed at this stage.			
Relative accuracy	The Feasibility Study is being completed to a level of accuracy of $\pm$ 15%. An ore reserve of 445 Mt at a grade of 57.1% Fe at a strip ratio of 1.13:1 has been derived from the eight WPIOP iron ore resources of which the Mt Stuart Joint Venture represents 70 Mt at a grade of 54.8 % Fe.			