

## **ASX ANNOUNCEMENT & MEDIA RELEASE**

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# ALCYONE INCREASES TWIN HILLS ORE RESERVE & MINE LIFE

## **HIGHLIGHTS**

#### **TWIN HILLS**

- Re-optimised Twin Hills mine plan delivers increase in Ore Reserves of 1.42Moz silver (+30%)
- New Ore Reserve estimate of 5.64Moz of recoverable silver (4Mt @ 64g/t Ag)
- Mine life increased from 3 years to between 4 and 5 years (including current stockpiles)
- Expected cash operating cost of approximately A\$15/oz
- Strip Ratio (Waste : Ore) reduced from 3.9:1 to 1.65:1
- Plant construction on target for full-scale commercial silver extraction in September Quarter of 2011
- Leaching of existing heaps occurring at expected rate with first Merrill Crowe silver extraction expected later this month

#### **MT GUNYAN**

- Increase in Mt Gunyan JORC compliant Mineral Resource estimate to 2.3Mt @ 69g/t Ag and 0.08g/t Au, for 5.2Moz of silver and 6,200oz of gold
- Potential to add to mine life as a key second source of feedstock for Twin Hills processing facility
- Scoping Study underway

Alcyone Resources Limited (ASX: AYN; 'Alcyone' or 'the Company') is pleased to report an updated Ore Reserve estimate for the Twin Hills deposit, part of the Texas Silver & Polymetallic Project in south-east Queensland, where the Company commenced early silver production last month.

Alcyone recently undertook a re-optimisation of its Mineral Resource inventory in light of the strength in the silver price, with spot silver currently trading above A\$30/oz and in recent weeks trading as high as +A\$47/oz. The Company completed pit optimisations for the Twin Hills deposit at varying prices, from A\$19.85/oz to A\$35/oz and has calculated Ore Reserve estimates based on a silver price of A\$19.85/oz and A\$25/oz.

These new Ore Reserve estimates at the above silver prices are summarised in Table 1:

Table 1: Twin Hills Ore Reserve Estimate

Silver Price	Reserve Classification	Tonnes (Mt)	Silver Grade (g/t)	Recovered Silver (Moz)	Strip Ratio Waste : Ore
A\$19.85/oz	Proven and Probable	2.325	81	4.125	2.17 : 1
A\$25.00/oz	Proven and Probable	4.016	64	5.637	1.65 : 1

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The Ore Reserve estimates are based on appropriate components of the current JORC-compliant Mineral Resource for the Twin Hills deposit of 3,842,000 tonnes grading 83g/t Ag for 10.2Moz of contained silver (Appendix 1).

Both optimisations and the resulting Ore Reserve estimates incorporated updated costing estimates, improved pit wall angles resulting from the geotechnical drilling and more optimal pit design parameters. This has resulted in an overall improvement to the economics for both pits as shown in Table 1.

Based on the current strength of the silver price and the forward silver price projections, the Board has taken the decision to mine the Ore Reserve as defined by the A\$25 per ounce silver price optimisation studies. This Production Pit enables the Company to benefit from the anticipated strength of the silver price while providing sufficient conservatism against silver price volatility.

In addition to the in pit Ore Reserves stated above, there are approximately 200,000 tonnes of additional ore grading over 60g/t Ag currently on the Run of Mine (ROM) stockpile which will provide initial stock feed for the processing operations.

The Production Pit design also incorporates a further 860,000 tonnes of marginal ore at an average grade of 25g/t Ag that will be mined as part of the overall mining sequence. This material will be extracted from the pit as part of normal mining activities and a decision on its treatment will be made based on the prevailing silver price at the time of mining.

The new Ore Reserve, which excludes the material already on the leach pads, has delivered over a 30% increase in production ounces and increased the mine life of the Twin Hills deposit from three years to between four and five years with production rates of 1.0 million tonnes per annum.

**Based on the delivery of between 1.5 – 2.0 million ounces per annum,** the average production cost has been estimated at A\$14.95 per oz. With a current silver price of over A\$32 per ounce and forward predictions showing a range from A\$35 to A\$42 per ounce through to 2015 this has the potential to deliver a solid operating margin and strong cash flow for Alcyone.

Managing Director of Alcyone Resources, Mr Andrew King, said a mine plan based on a A\$25/oz silver price optimisation represented an achievable and conservative operating profile for the Company.

"Alcyone intends to undertake a staged mining approach to provide an optimum life-of-mine production profile that can be tailored to the prevailing silver price," he said. "We believe an initial mine plan based on a silver price of A\$25 per ounce will provide the Company with a viable, flexible mining operation that can accommodate both future increases and decreases in the silver price."

"From a geological perspective, the A\$25 per ounce Ore Reserve calculation includes a significantly higher percentage of the Twin Hills Resource model which, coupled with improved wall angles, has decreased the expected waste to ore mining strip ratio from 3.9:1 on the original November 2010 estimate to 1.65:1 for the Production Pit. This in turn has delivered significant cash savings on the overall operation," Mr King continued.

The Ore Reserve does not include material currently sitting on the existing leach pads at Twin Hills, which comprises an estimated **400,000 tonnes** of material from the previous operation which has only been partially leached. Alcyone commenced re-irrigation of this material in early April to demonstrate the viability of the leaching process before moving to full-scale commercial silver production later this year.

Preliminary testwork indicated the average grade of the material on the heaps ranges from 30g/t Ag to 100g/t Ag. The Company has taken the position that the heaps have **an average grade of 45g/t Ag**. Testing of composite auger samples taken from the stockpiled material has demonstrated that **approximately 45% of the remaining silver** is still available to be leached. This initial production will utilise the pilot scale Merrill Crowe circuit already on site, further confirming the viability of the proposed long-term process flow sheet.



The Company is pleased to confirm that silver is leaching from the heaps at the expected rate and that the re-irrigation of the Twin Hills heaps is set to deliver first silver production and first cashflow for the Company in the June Quarter. Alcyone is planning to ramp-up to full scale commercial silver extraction during the September Quarter at an initial annualised rate of 1.5-2.0Moz, with construction and commissioning for the full-scale mining operation well underway.

## **Updated Mt Gunyan Resource Estimate**

Alcyone also announced today that following recent successful exploration results from the Mt Gunyan deposit, located 4-5km north-west of Twin Hills, the Company has calculated a revised JORC Code compliant Mineral Resource estimate of 2.3Mt @ 69g/t Ag and 0.08g/t Au, containing 5.2Moz of silver and 6.200oz of gold.

The revised estimate includes a maiden "Measured" Mineral Resource component, reflecting an increase in the level of confidence over the previous estimate. The new Mineral Resource also represents an increase of 283,000 ounces of contained silver metal.

The new mineral resource is shown in Table 2:

**Table 2: Mt Gunyan In Situ Mineral Resource** 

Category	Tonnes	Ag g/t	Au g/t
Measured	242,000	69	0.16
Indicated	1,777,000	69	0.08
Sub-total	2,018,000	69	0.09
Inferred	329,000	69	0.05
Total	2,347,000	69	0.08

Tonnes and grade have been rounded to the nearest 1000 for tonnes and whole units for Ag. Cut-off grade of 40g/t Ag. The mineral resource has been estimated based on:

- Mineralisation determined by a combination of geology, structure and a nominal Ag boundary of 40g/t.
- The mineralisation occurs in two separate geographic Domains
- Validated drill hole data set composited within the mineralisation interpretation to 2m down hole
- Grade continuity statistics and geo-statistical assessment utilised to determine search orientation and distance by Domain
- Ag and Au grade estimated separately by inverse distance methods with restrictions on higher grades applied.

Alcyone has commenced work on updating mine scoping studies for the Mt Gunyan deposit, with the increased silver price and confirmation of the presence of gold mineralisation both expected to enhance the overall project economics.

Andrew King said the results provide further support for Mt Gunyan's potential to contribute additional tonnes to the Twin Hills mining operation.

"Our aim is to establish Mt Gunyan as a source of additional feedstock for the Twin Hills processing plant and further extend the operating life of the Twin Hills Silver Leach Facility," he said.

**ENDS** 

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## **About Alcyone**

Alcyone Resources Limited (ASX Ticker: AYN) is an Australian-based resource company focused on the reassessment and re-development of the Twin Hills Silver Mine, located south-west of Brisbane near the town of Texas in south-east Queensland.

Following a broad-based economic and technical review of the Twin Hills mine in late 2010, Alcyone has commenced early silver production based on the re-irrigation of the existing silver-rich heaps at Twin Hills, with first silver expected to be produced in the June Quarter of 2011.

The leach pads at Twin Hills contain an estimated 400,000 tonnes of material from the previous operation which has only been partially leached. Re-irrigation of this material will enable Alcyone to demonstrate the viability of the leaching process before moving to full-scale commercial silver production later this year, while at the same time generating initial cash flow.

The Company is on-track to commence full-scale commercial silver extraction at the rate of 1.5-2.0 million ounces of silver per annum in the September Quarter of 2011.

In addition to the resumption of production at Twin Hills, Alcyone is also focused on assessing and capitalising on the significant exploration potential within its 275 sq km tenement package at Texas, including the potential for polymetallic and base metal mineralisation.

#### **Competent Person Statements**

The information in this report that relates to data used for and the resultant Mineral Resources for the Texas Silver project is based on information compiled by Mr Peter Ball who is a Member of the Australasian Institute of Mining and Metallurgy and Director of DataGeo a mining and exploration consultancy.

Mr Ball has 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 a "Competent Person" as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Mr Ball consents to the inclusion in this Report of the information compiled in the form and context in which they appear.

The information in this Report that relates to Exploration is based on information also compiled by Mr Ball.

The information in this report that relates to data used for and the resultant Ore Reserve for the Texas Silver project is based on information compiled by Mr Bill Frazer who is a Member of the Australasian Institute of Mining and Metallurgy and Director of Mining One Pty Ltd a mining and geotechnical consultancy.

Mr Frazer is a mining engineer with over 30 years experience in underground and open pit environments and has sufficient experience which is relevant to this type of mineral deposit and mining methodology 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 Frazer consents to the inclusion in this Report of the information compiled in the form and context in which they appear.

#### **Forward-Looking Statement**

Certain statements made during or in connection with this communication, including, without limitation, those concerning exploration targets, contain or comprise certain forward-looking statements regarding Alcyone's exploration operations, economic performance and financial condition. Although Alcyone believes that the expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in metals prices and exchange rates and business and operational risk management. Alcyone undertakes no obligation to update publicly or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events.



# **APPENDIX 1: MINERAL RESOURCE ESTIMATION**

Table 1: Twin Hills, JORC Compliant Mineral Resources - March 2010

Deposit	Resource Category	Tonnes	Grade (g/t Ag)	Contained Silver (oz)
Twin Hills	Measured	1,762,000	86	4,868,000
	Indicated	1,466,000	79	3,722,000
	Inferred	614,000	81	1,602,000
	TOTAL:	3,842,000	83	10,192,000

**Note:** Specific comment regarding the method of calculation for the Resource and the role of external consultants was detailed in the March 2010 Quarterly Report (23 April 2010).