

## **ALCYONE LAYS FOUNDATIONS FOR INCREASED MINE LIFE AFTER BOOSTING TEXAS SILVER RESOURCES TO 23Moz**

### **HIGHLIGHTS**

- 35% increase in Mt Gunyan Mineral Resource estimate (by total contained silver) to 3.9Mt @ 55g/t Ag for 7.0Moz of contained silver, using a revised cut-off grade of 30g/t Ag.
- Increase in total Texas Project Mineral Resource inventory (encompassing Twin Hills and Mt Gunyan deposits) to 13.3Mt @ 53.6g/t Ag for 23Moz of contained silver, at cut-off grades of 26.5g/t and 30g/t Ag respectively.
- Open pit optimisation plus design studies are underway and indicate an increase in the Twin Hills Ore Reserve.
- Feasibility Study continuing on development of Mt Gunyan, located 4km east of Twin Hills, as a second source of ore feed for the Twin Hills mining operation. Positive results have been obtained from preliminary optimisation studies.
- These results represent another key step towards increasing the overall mine life at the Texas Project to between 7 and 10 years.
- Ramp-up of silver production at Texas Operations is continuing with construction of Leach Pad 4 (LP4) on schedule and on budget, and commissioning expected in September.

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**Alcyone Resources Limited (ASX: AYN; 'Alcyone' or 'the Company')** announces a further substantial increase in the Mineral Resource inventory for its 100%-owned **Texas Silver & Polymetallic Project** in SE Queensland to over **23 million ounces** of contained silver following a **35 per cent increase** in the Mineral Resource for the Mt Gunyan deposit – its second planned open cut mine.

In addition, preliminary mining optimisation studies including an updated three-stage pit design for the current open cut at the Twin Hills deposit have indicated the potential for an increase in recoverable silver ounces, when compared to the previously announced Ore Reserve.

The combination of a significantly expanded Mineral Resource inventory and positive outcomes from current open pit optimisation studies have put Alcyone firmly on track to achieve its objective of extending the life of its heap leach silver mining operations at Texas to at least 7 years and heading towards 10 years.

### **Updated Mt Gunyan Mineral Resource**

The Company has updated the Mineral Resource for the Mt Gunyan Deposit, located 4km east of the Twin Hills mine, to incorporate the material surrounding the main mineralised zones.

The revised Measured, Indicated and Inferred Mineral Resource, using a cut-off grade of 30g/t Ag, comprises **3.9 million tonnes grading 55g/t Ag for 7.0 million ounces** of contained silver (*Appendix 2, Table 1*). This represents a **35% increase** in contained silver over the previously reported estimate (see following table for comparison):

Class	Dec 2010, 40g/t Cut-off			May 2012, 30g/t Cut-off		
	Tonnes	Ag g/t	Ag Moz	Tonnes	Ag g/t	Ag Moz
Measured	242,000	69.1	0.5	754,000	55.6	1.3
Indicated	1,777,000	68.7	3.9	2,884,000	55.5	5.2
Inferred	329,000	68.8	0.7	302,000	48.2	0.5
<b>Total</b>	<b>2,347,000</b>	<b>68.8</b>	<b>5.2</b>	<b>3,940,000</b>	<b>55.0</b>	<b>7.0</b>

The updated Mineral Resource incorporates additional information from drilling carried out in 2010/2011 and interpretation changes to reflect improved physical continuity at lower grades. It is reported at a lower cut-off than before to reflect a similar average grade to that at Twin Hills. The increase in contained metal is due to a combination of the lower cut-off grade together with the inclusion of material within and along strike from the previous estimate.

This updated data also delivers an improved level of confidence in the Mineral Resource with the combined Measured and Indicated component now representing 92% of the estimate. The parameters for the estimate are provided in Appendix 2.

This increases the global Mineral Resource inventory for the Texas Project to 13.3 million tonnes grading 53.6g/t Ag for **23 million ounces of contained silver**.

A Feasibility Study is currently underway to investigate the potential to develop Mt Gunyan as a second source of ore feed for the Texas Operations. The Company has completed first-pass optimisation studies which indicate that there is potential for Mt Gunyan to become an open cut mining operation and deliver up to another two years of mine life to the Texas Operations.

Further work is required to complete the Mt Gunyan Feasibility Study and calculate a maiden Ore Reserve for this deposit, however Alcyone is confident that the work completed to date provides a good indication of its potential to make a significant contribution to the overall Ore Reserve inventory at the Texas Project, and therefore to extend the mine life of the operation beyond seven years.

In addition to these two key deposits, Alcyone has identified several advanced exploration prospects within the 1,100km<sup>2</sup> tenement portfolio at Texas which have the potential to further enhance its Mineral Resource inventory in the future. These include Silver Spur and extensions to Mt Gunyan.

### **Twin Hills Open Pit Optimisation**

Alcyone has undertaken new mining optimisation studies and preliminary pit designs on the updated (March 2012) Mineral Resource (*Appendix1, Table1*) for the Twin Hills deposit, which is the current source of ore feed for its heap leach mining and processing operations at Texas.

These studies have defined a three-stage pit design which has been developed to allow maximum flexibility to react to any changes in economic conditions plus incorporate final pit wall design requirements that will continue to be refined over the life of the project. The first stage, as reported in May, is currently being mined at a positive orebody reconciliation.

The current study parameters utilise actual mining and processing cost and performance data, together with a metal recovery model which has been generated after six months of operations. A long-term recovery of 65% is being used which takes into account treatment of the medium grade material which is now being incorporated into the production schedules.

This preliminary three-stage pit design is currently being reviewed against ultimate design parameters, and the Company is confident, subject to there being no significant changes in the design parameters, that the final sign-off will deliver an increase in the current Ore Reserves and hence mine life.

Commenting on the updated resources and open pit optimisations, Alcyone's Managing Director, Mr Andrew King said: "These are very positive outcomes, with the new Mt Gunyan resource underpinning an increase in the global project resource to over 23 million ounces and initial optimisation studies pointing to an increase in expected recoverable ounces for the Twin Hills open pit.

"This indicates that we are well on track to increasing the current mine life for the Twin Hills mining operation based on our current long-term production profile of one million tonnes per annum and 1.2 to 1.5 million ounces of silver per annum," Mr King said. "With ongoing success at key exploration targets such as Silver Spur, this puts our goal of a ten year mine life well within reach."

### **Operations Update**

Further to the information provided in the June 2012 Quarterly Report, Alcyone advises that the ramp-up of silver production at the Texas Operations is continuing successfully, with construction of Leach Pad 4 (LP4) on schedule and on budget for completion and commissioning in September 2012.

Daily production rates are currently being maintained at the levels outlined in the Quarterly Report and the Company remains confident of achieving commercial production rates during the September Quarter and steady-state operations in the December Quarter.

### **Hedging**

With the increasing strength of the Australian dollar silver price, the Company has taken the opportunity to put some further hedging in place to underpin the next 12 months of cash flow. Alcyone now has a total of 481,214oz of silver at an average price of A\$29.25 hedged through to August 2013.

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### **About Alcyone**

*Alcyone Resources (ASX Ticker: AYN) commenced silver production in July 2011 at its Texas Silver & Polymetallic Project in south-east Queensland, and is currently ramping up to an annualised production level of 1.2 to 1.5Moz Ag per annum. Alcyone has embarked on an exciting new growth phase with aggressive exploration programs underway aiming to establish a 7-10 year mine life and targeting new silver and base metal discoveries within its now 1,100km<sup>2</sup> tenement holding.*

*The Texas Silver & Polymetallic Project includes the Twin Hills Silver Mine and a portfolio of advanced silver and polymetallic base metal exploration targets. Alcyone has moved rapidly from acquisition of the Project in November 2009, through re-assessment and feasibility and into production. The Company has upgraded the existing 1Mtpa Twin Hills processing plant, including the installation of new crushing circuit and a commercial-scale Merrill Crowe silver recovery circuit, which has been successfully commissioned and is now operating at design processing capacity. Alcyone is on track to achieve steady-state commercial production by Q4 2012.*

### **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.

### 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: Twin Hills Project

Table 1: Mineral Resource  $\geq$  26.5g/t Ag cut-off (beneath the mining surface as at July 2012)

Category	Tonnes	Ag g/t	Contained Moz Ag
Measured	2,151,000	80.2	5.5
Indicated	6,152,000	44.0	8.7
Inferred	1,045,000	50.8	1.7
<b>Total</b>	<b>9,348,000</b>	<b>53.1</b>	<b>16.0</b>

Tonnes and oz are rounded and may not reflect individual calculations according to the information in this and the following tables

## Appendix 2: Mt Gunyan Project

Table 1 Mt Gunyan Mineral Resource  $\geq$ 30g/t Ag

Class	Tonnes	Ag g/t	Contained Ag Moz
Measured	754,000	55.6	1.3
Indicated	2,884,000	55.5	5.2
Inferred	302,000	48.2	0.5
<b>Total</b>	<b>3,940,000</b>	<b>55.0</b>	<b>7.0</b>

The mineral resource was been estimated by Alcyone personnel using the Vulcan geological modelling package and the following techniques: -

- Validated drill hole data set composited within the mineralisation interpretation to 2m down hole
- Mineralisation determined by a combination of geology, structure and Ag grade. Domains assigned by location and characteristic similarity
- Grade continuity statistics and geo-statistical assessment utilised to determine search orientation and distance by domain
- Ag grade estimated by ordinary kriging using a grade continuity established by domain.
- Reporting cut-off for Ag selected to provide similar average in situ grade as for the nearby Twin Hills Deposit given the geological and likely similar leaching characteristics of the material.