

## ALCYONE REPORTS JORC SILVER RESOURCES

**+15Moz RESOURCE INVENTORY UNDERPINS PROGRAM TARGETING RESUMPTION OF SILVER PRODUCTION AT TEXAS PROJECT LATER THIS YEAR**

### HIGHLIGHTS

- JORC compliant Measured, Indicated and Inferred Mineral Resource inventory, above a 40g/t Ag reporting cut-off, of 5.9Mt @ 79g/t Ag for 15.1Moz of contained silver, comprising:
  - 3.8Mt @ 83g/t Ag for 10.2Moz contained silver at Twin Hills
  - 2.1Mt @ 73g/t Ag for 4.9Moz contained silver at Mt Gunyan
- Over 85% of resource inventory is in the Measured and Indicated categories and available for conversion to Ore Reserves – mining optimisations now underway
- Bulk sample analysis returns silver grades above the expected grade indicated by the mineral resource model and grade control information
- Metallurgical test work on schedule for finalisation of a new mine plan, flow sheet and economic model for the Twin Hills Mine by the end of June 2010

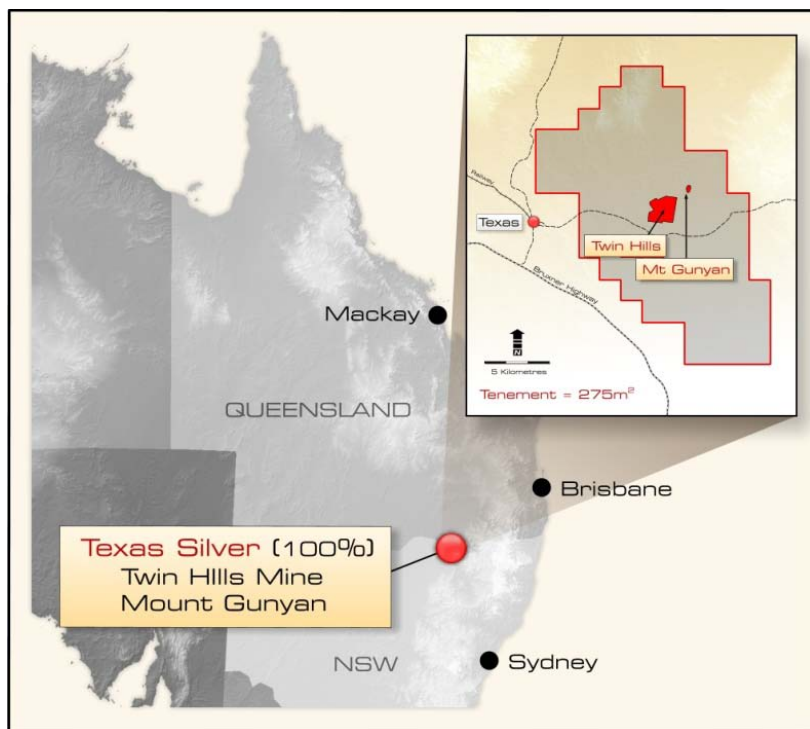


Figure 1 – Location of Texas Silver Project

Alcyone Resources Limited (ASX: AYN; “Alcyone” or “The Company”) is pleased to report updated JORC compliant silver mineral resources totalling 15.1 million ounces at its 100%-owned Texas Silver Project in south-east Queensland and provide an update on progress towards the resumption of silver production at the Twin Hills Mine later this year.

The estimation of the new mineral resource inventory marks the first critical milestone in Alcyone’s 2010 development plans for the Twin Hills Project. It provides a strong foundation for other ongoing work programmes including metallurgical test work and the development of a new process flow sheet and mine plan.

Subject to continued success with these work programmes, Alcyone is on track to finalise a new mine plan, process flow sheet and economic model for the Twin Hills Mine by the end of the second Quarter (Q2) of calendar 2010 with a target date for the resumption of operations at Twin Hills of the end of Q4 2010.

"The announcement of a 15.1 million ounce JORC resource is a strong result for Alcyone, reflecting a thorough and rigorous analysis of the historical data available from Twin Hills that has placed over 85% of the resource into the Measured and Indicated categories," said Alcyone's Managing Director, Mr Andrew King.

"We have a high degree of confidence in the work that has been completed since Alcyone took over the Twin Hills Project in November last year. The new resource provides a very solid foundation for our plans to recommence production by the end of calendar 2010," Mr King continued.

"Metallurgical test work is progressing according to schedule with the initial 60-day trial nearing completion. In parallel with this, work has commenced on mine optimisation studies and we are also having preliminary discussions with various equipment suppliers and other contractors to establish restart procedures for key items of plant and equipment, keeping us on our pathway to production by the end of 2010."

In parallel with this work, Alcyone has also commenced an assessment of the regional exploration targets within its 275 sq km tenement package, including the potential for both additional heap leachable silver deposits as well as sulphide base metal mineralisation.

### JORC Mineral Resource Inventory

Alcyone has completed new mineral resource models for both the Twin Hills deposit, which was previously mined by Macmin Silver (producing around 450,000 ounces of silver), and the Mount Gunyan deposit, a key satellite ore body located 4km north-west of Twin Hills. These deposits are part of Alcyone's broader Texas Silver Project, a 275 sq km tenement package located 240km south-west of Brisbane (see Figure 1).

The updated JORC compliant mineral resource inventory, using a 40g/t silver cut-off grade, is summarised in Table 1 below:

**Table 1: Texas Silver Project, 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
	<b>TOTAL:</b>	<b>3,842,000</b>	<b>83</b>	<b>10,192,000</b>
Mount Gunyan	Indicated	1,756,000	76	4,267,000
	Inferred	350,000	58	650,000
	<b>TOTAL:</b>	<b>2,106,000</b>	<b>73</b>	<b>4,917,000</b>
<b>PROJECT TOTAL</b>	<b>ALL CATEGORIES</b>	<b>5,948,000</b>	<b>79</b>	<b>15,109,000</b>

**Note:** Specific comment regarding the method of calculation for the Resource and the role of external consultants is included in Appendix 1 to this announcement.

The new resource models include internal dilution where geologically appropriate and are reported above 40g/t Ag to highlight the component of the model that is likely to be economic given today's cost environment and metallurgical knowledge.

The models now also incorporate the detailed structural and geological interpretation undertaken by the Company's consultants, Shear Exploration (not previously modelled), which enables a clearer interpretation of the location of the mineralisation.

Alcyone was assisted by Cube Consulting to geostatistically assess the Twin Hill deposit to assist in determining preferred orientations within the silver mineralisation. Alcyone is confident that the revised resource models are robust and provide a strong foundation for the ongoing Feasibility Study on the planned resumption of silver production at the Twin Hills Mine.

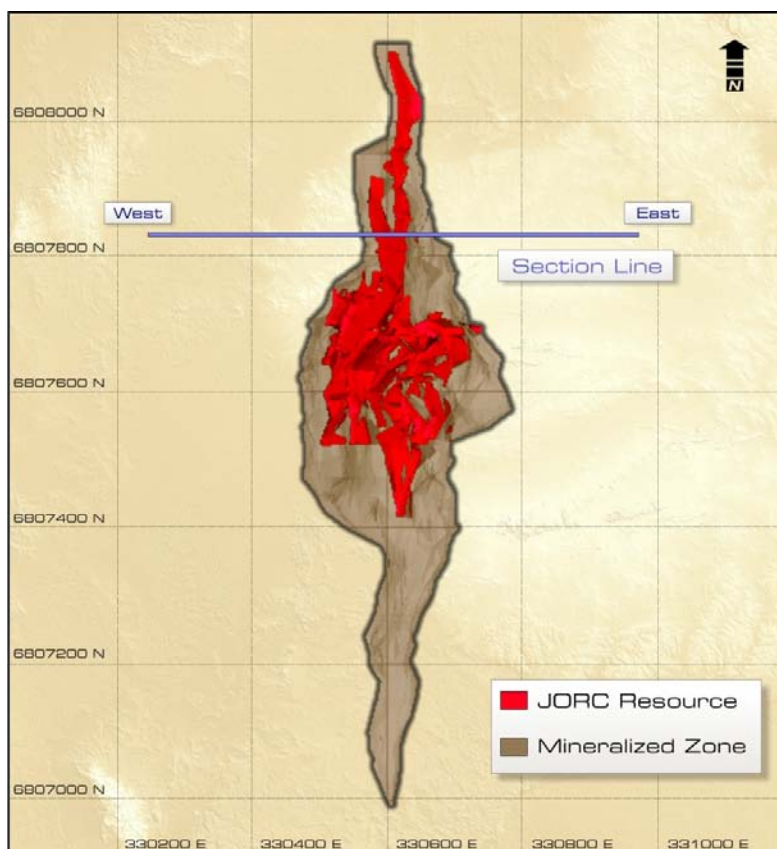
Previous reporting by Macmin stated pre-mining in-situ Mineral Resources, however from publicly available data, it would appear that no reserves were ever declared at the Project. In addition, no formal reconciliation of the model was undertaken and detailed records are not available for this to be undertaken. These models reflect the current pit survey or natural surfaces and will provide a zero-based starting point for mine planning.

While both deposits contain gold assays that have been previously reported, they have not been modelled at this time. The Company is currently conducting a review to assess the most appropriate methodology to estimate gold grades within the model. Alcyone intends to report any future mineral resources which include gold without the use of any silver equivalence calculations in terms of cut-offs applied.

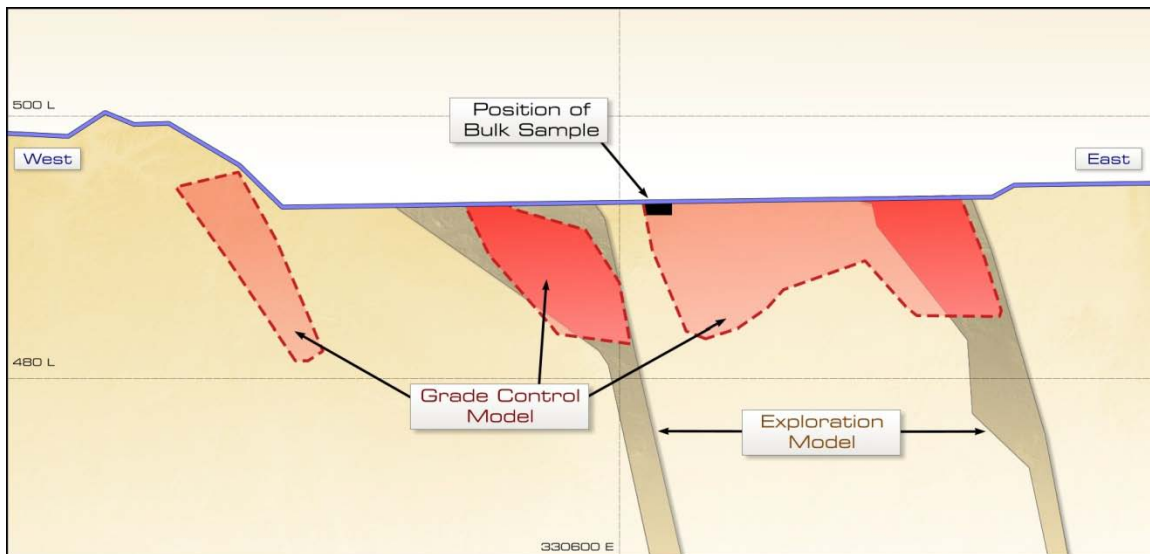
Significantly, based on contained silver, 85% of both the Twin Hills and Mt Gunyan Mineral Resource inventories are in the Measured and Indicated category, meaning that a total of **4.98Mt @ 80g/t Ag for 12.8 million ounces of contained silver** is available for assessment for conversion to Ore Reserves. Alcyone has now commenced mining optimisations and is confident of being in a position to have the economic modelling completed in line with its overall feasibility and development timetable by the end of Q2 2010.

In addition to the JORC Mineral Resources, there is a large mineralised zone which was previously referred to as a "significant tonnage of lower grade 'Dump Leach' material" in previous Macmin ASX releases.

This zone still exists (*see Figure 2*), but has not been included in the new Mineral Resource inventory due to the quality and quantity not being adequate to conclude that there are reasonable prospects for eventual economic extraction.



**Figure 2: Twin Hills Resource – Plan View**

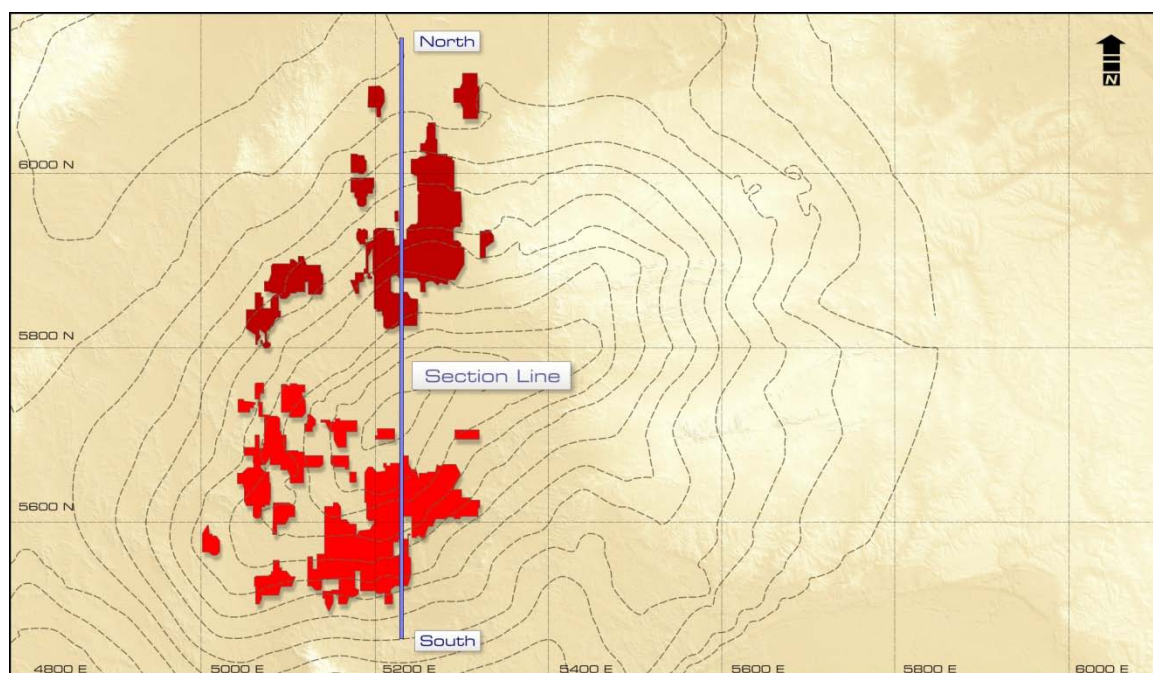


**Figure 3: Twin Hills Resource – Cross Section**

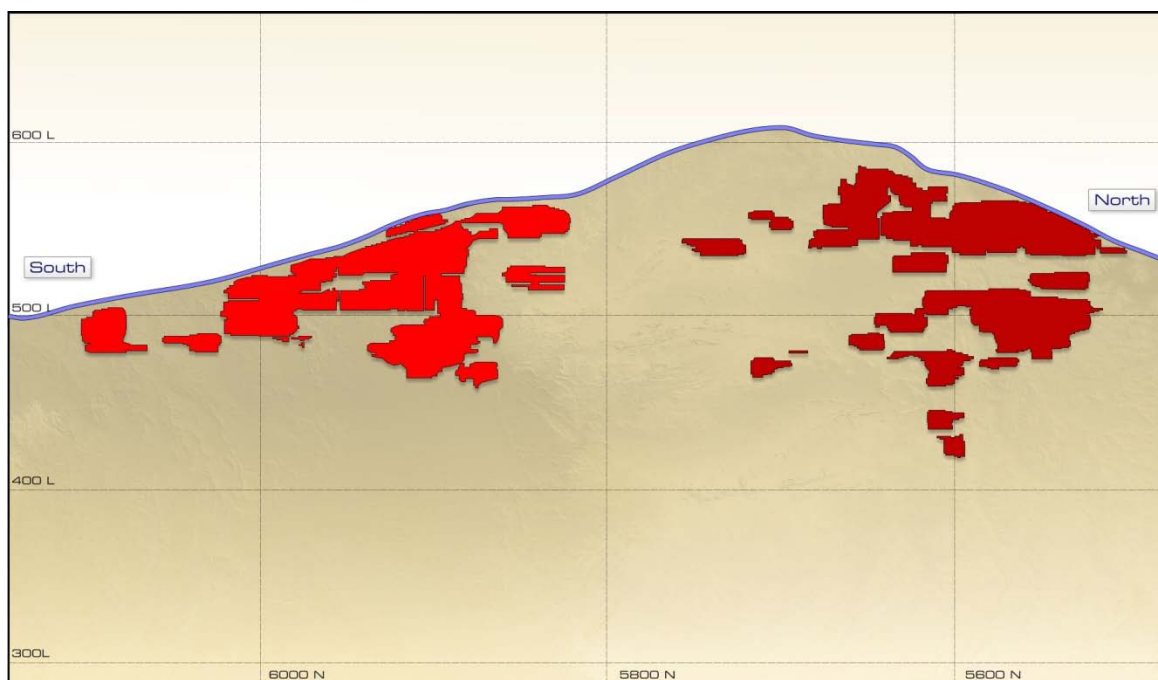
However, due to the proximity of the material to the resource, the Company will, on an ongoing basis, assess the potential to process this lower grade material as part of future mining operations.

Importantly, the updated Mineral Resource inventory includes the Mt Gunyan deposit, located 4km by road from the Twin Hills Mine, and incorporates the results of the 2008 drilling programme which successfully in-filled and expanded the mineralised zone. Work on mine planning optimisations and economic modelling for Mt Gunyan will commence immediately on completion of the assessment of Twin Hills.

The Mt Gunyan deposit, shown in plan view in Figure 4 below, has the potential to provide additional feedstock and increase the life and throughput of the Twin Hills operation. As shown in the long section in Figure 5, the mineralisation at Mt Gunyan is relatively close to surface and on the sides of the hill which should be beneficial in relation to the stripping ratio and hence mining costs when the pit optimisations are undertaken.



**Figure 4: Mt Gunyan Resource – Plan View**



**Figure 5: Mt Gunyan Resource Long Section**

### Ore Availability

The Twin Hills Mine is already partly stripped with approximately 400,000 tonnes having been partially processed by Macmin through the heap leach circuit. The balance of the mined ore remains on the run-of-mine (ROM) and crushed ore stockpiles. This material has been surveyed and, based on an SG (specific gravity) range of 1.6 t/m<sup>3</sup> to 2.1 t/m<sup>3</sup>, the stockpiles are estimated to contain approximately 200,000 tonnes.

Stockpile tonnages calculated by survey and grade estimates from grab samples are inherently inaccurate so these do not form part of the resource calculation. They are, however, above the 60 g/t cut-off grade previously estimated by Macmin and will form part of the start-up feed to the plant.

In addition, there is estimated to be approximately 130,000 tonnes at a grade of 70 g/t Ag immediately available within the next 2.5m mining bench with further ore pre-stripped and yet to be scheduled in future mine plans.

### Grade Control Modelling

Alcyone extracted a ~1.7 tonne bulk sample from within the current mining benches last year, primarily to obtain ore samples for metallurgical test work. Assaying of this ore has returned an average grade of 110g/t Ag, compared with an expected 80g/t Ag based on the grade control information. The location of the sample is shown in Figure 3.

The Company is also currently developing a model of the grade control drilling undertaken in 2008. Part of the model is shown in Figure 3 and clearly identifies significant ore blocks existing between those identified in the exploration model. This modelling will be used to further refine the resource model and plan future exploration and development drilling programmes as well as to assist with ore body delineation and estimation.

Alcyone is confident that the next two mining benches have the potential to deliver a significant increase in contained silver over that currently identified by the resource and mining model.

## Metallurgical Sample Update

The Heap Leach test work is progressing well and, at the time of preparing this report, is at day 58 of the first 60- day trial period. A decision, based on silver extraction assays, will be made within the next 48hrs on whether to extend the tests past the initial 60 days.

Two trials are currently being run, one based on the product delivered from the High Pressure Grinding Rolls Crusher test, the other from a standard 3-stage conventional crushing circuit. Both trials have demonstrated that the silver will leach from the ore samples with an estimate to be made following completion of the tests on the optimum crushing circuit for the project.

A detailed update on the metallurgical test work will be provided during April.

## Exploration

The broader scale work currently being undertaken by Shear Exploration will be used to establish a regional geological and structural overview of the Company's holdings. This will in turn be integrated with the historical mining database for the area and the results of regional exploration programmes from 2007/2008. Priority exploration targets will then be established for both heap leachable silver mineralisation as well as polymetallic base metal targets.

Drilling at Mt Gunyan in 2008 identified a deeper polymetallic zone which requires follow up. A preliminary review of the potential of this zone is currently underway and the Company expects to report separately on the progress of this exciting development in the near future.

A preliminary review of Twin Hills has also identified some areas of the model that could benefit from in-fill drilling to deliver a possible increase in tonnage with some down-dip exploration potential also being established. This work is still in the formative stages and it is expected that the results of this exploration review and subsequent targets will be announced in the near future.

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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.*

*Alcyone has commenced work on a program targeting the resumption of silver production at Twin Hills by the end of 2010. This includes metallurgical test work to confirm the parameters for a re-design of the processing system, as well as a complete review of all available geological data. Based on this review, the Company delivered a JORC-compliant resource statement of 5.9Mt @ 79g/t Ag for 15.1Moz of contained silver in March 2010.*

*The Twin Hills mine remains fully developed and is in a position to immediately recommence operations following a decision to start commercial silver extraction. Alcyone is aiming to recommence mining at Twin Hills in the Fourth Quarter of calendar 2010.*

*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.*

## APPENDIX 1 : MINERAL RESOURCE ESTIMATION

The mineral resources for both deposits have been estimated by Alcyone Resources Ltd.

The mineral resource for Twin Hills Deposit was estimated using:

- the existing validated drill hole dataset composited within the mineralisation to 2m down hole.
- a combined geology/mineralisation/structural model developed by Shear Exploration from re-logging existing diamond core and reinterpretation of the percussion drill logs
- Ag grade continuity statistics generated by Cube Consulting which highlighted search orientations and ranges for two major domains within the deposit
- Ag grade estimated using ordinary kriging
- Reporting cut-off set to reflect current economic and metallurgical knowledge.

The Mount Gunyan Deposit was estimated in a similar manner to Twin Hills with the exception that the grade was estimated using inverse distance to the power of 2 and the statistical analysis of the mineralisation was conducted by Alcyone.

The updated mineral resource models include internal dilution (if appropriate to the geological interpretation) and are reported above a 40g/t Ag cut-off grade to highlight that part of the mineralisation which is mostly likely to be suitable for treatment by heap leaching methods.

Whilst both deposits contain gold [individual samples to 6g/t at Twin Hills (2m from 8m downhole in THP099) and 43g/t (1m from 152m downhole in hole MGD001)] it has not been modelled at this time. A review is currently underway to assess the most appropriate methodology to estimate gold grades into the model. It is planned to report any future mineral resource which included Au without the use of any silver equivalence calculations in terms of cut-offs applied.

### 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 Australian 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.