

METALLURGICAL TESTWORK CONFIRMS TECHNICAL VIABILITY OF TEXAS SILVER PROJECT

DETAILED ECONOMIC REVIEW UNDERWAY TARGETING FIRST PRODUCTION BY END OF 2010

HIGHLIGHTS

- Overall silver extraction of +69% achieved from 75-day Column Leach Testwork, with 60% extraction achieved within the first 30 days
- Product sizing and fracture mechanism established as key parameters for optimum leach recovery
- Testing of the existing heaps have shown that previous operations size reduction was insufficient for optimum silver extraction
- Merrill Crowe Circuit selected for improved silver recovery and to achieve a final silver bullion product
- Positive testwork results underpin plans to recommence production in Q4 2010

Alcyone Resources Limited (ASX: AYN; 'Alcyone' or 'The Company') is pleased to report positive results from the key **metallurgical testwork programme** for its 100%-owned **Texas Silver Project** in south-east Queensland, providing a strong foundation for its plans to resume silver production by the end of calendar 2010.

The results of the testwork programme are in line with extraction rates identified by the previous operator (and reviewed by Kappes Cassiday in 2000), and confirm one of the key parameters in achieving such extraction rates is product sizing. Recent sampling of the historical heap leach pads indicates that previous product sizing did not meet the specifications required to achieve optimum silver extraction rates.

The current findings from the testwork program represent key inputs in the detailed economic review underway for the Project. The Company is currently determining the key parameters for the operation including a new process flowsheet and mine plan for the Texas Project.

Together with the revised JORC compliant Measured, Indicated and Inferred Mineral Resource inventory of **5.9Mt grading 79g/t Ag for 15.1Moz of contained silver** announced in March, this represents a key milestone towards the resumption of silver production at Texas later this year.

Metallurgical Recovery

Following the completion of a **75-day** Column Leach Testwork Program, the overall **silver extraction for that period was established at 69.8%**. More importantly, 60% silver extraction was achieved within the first 30 days. For expediency, the programme was stopped at 75 days, although leaching was still occurring at acceptable rates when testing was ceased.

As reported previously, two separate column tests were being run – one based on the product from a High Pressure Grinding Rolls (HPGR) circuit and the other from a conventional three-stage crushed product. The figures reported above are from the HPGR product. The standard three-stage crush product reported a 60% extraction after the 75-day period but only 43% extraction at 30 days based on the calculated head grades.

These are excellent results and in keeping with the original testwork undertaken in 2000 by the previous operator of the Texas Project, which was reviewed at the time by Kappes Cassiday . This work indicated recoveries of between 60% and 72% at **90 days** for the samples with various head grades.

Product Sizing

Considerable work has also been undertaken as part of the testwork programme to gain an understanding of the impact of product sizing and fracture style on silver extraction. This work has shown that good recovery and extraction rates are directly dependent on the product size distribution. It has been confirmed that achieving product sizing of 100% passing - 4mm and 50% being less than 1mm results in faster leaching rates.

To also improve the understanding of past operational issues in relation to sizing, a series of samples were taken from the historical heap leach pads. The sizing analysis of these historical samples showed that they were coarser than 100% passing 4mm and accordingly did not achieve 50% passing 1mm. Based on the Alcyone test results the inability to achieve the smaller crushing size was the major contributing factor to a slower extraction rate thus impacting negatively on the overall silver recovery and project economics.

As sizing alone did not appear to explain the difference in the leach rates between the HPGR and conventional crushed products, Alcyone decided that it would also undertake quantitative microscopic examination of the column leach residues.

This review has shown that the HPGR product has significantly more micro-fractures in the particles. The net effect of this is that more of the silver is exposed to the leachate, therefore improving its ability to deliver a faster extraction rate.

The Company intends to continue with further testing and reviews in this area while simultaneously progressing the final plant design and equipment selection.

Silver Extraction – Selection of Merrill Crowe

Following laboratory scale testwork and assessment of the various alternatives, Alcyone has decided to install a **Merrill Crowe circuit** as part of the silver recovery process. It has been demonstrated that Merrill Crowe can achieve in excess of 99% recovery of silver from the leachate, has low technical risk and is easy to operate. This recovery is a significant improvement on the previous operations and will further enhance overall project economics.

Alcyone considers that the production of silver bullion will be the most cost effective final end product. This will involve the installation of a bullion furnace and associated infrastructure at site.

Equipment Selection

Based on the metallurgical testwork programme, Alcyone is currently undertaking a complete review of suitable equipment for the Texas Project. A range of potential throughput rates are under consideration, however it is anticipated that the final plant capacity will be somewhere between 800,000tpa and 1mtpa. While much of the existing equipment can be incorporated into the new circuit, a number of key components will need to be sourced and installed.

HPGR or Equivalent Comminution Component

It has been demonstrated that the style of breakage being achieved by HPGR style equipment delivers quicker and more effective leaching. Discussions are being held with a number of suppliers regarding the suitability of their product to deliver the required sizing and breakage style.

Screening

Additional screening capacity will need to be incorporated into the final circuit design to deliver the required product sizing and throughput rate. It is currently estimated that an additional triple deck screen will be required with final selection to be linked to the HPGR decision.

Silver Extraction Circuit

As a result of the decision to use a Merrill Crowe (MC) Circuit and produce silver bullion, the silver recovery section of the existing plant will need to be substantially re-worked. While a modular MC circuit can be purchased as a complete package there will still be the need to install the necessary furnaces, retorts, and bullion room together with the associated support services.

Conveying and Stacking

Additional conveyors will need to be installed as part of the process of re-configuring the crushing circuit. A more cost effective method of delivering product to the Leach Pads will also be established.

Design work and discussions are already underway regarding the installation of a light-weight conveyor-based stacking system to suit the completion of the current heaps and meet the longer term needs of the Texas operation.

Current Equipment

A critical review of the site mobile processing equipment is underway. Consideration will be given, if appropriate, to utilising more cost effective plant and equipment. The power generation facilities are also under review with an assessment being undertaken of the viability to connect to the local grid power system.

Dependant on the outcome of these reviews, some of the plant may be considered for sale with any funds generated being used to offset the overall capital cost of the upgrade

The current Electrowinning Circuit will remain on a care and maintenance programme. Its potential future use will depend on the success of the current base metals exploration programme (see *ASX Announcement – 4 May 2010*).

Equipment and Consumables Purchase

Discussions are being held with several suppliers and contractors regarding the supply of equipment and services for the re-establishment of operations at Texas. This will be ongoing over the coming months and, where appropriate, will include tenders for both construction and consumable supplies.

Economic Review

Alcyone is currently developing an overall economic model for the Texas Project as the various capital and operating pricing alternatives for the revised processing plant flowsheet are received and considered.

Following the completion of the metallurgical testwork, the next phase of Mine Planning assessments can also be undertaken. This work will include the completion of the resource optimisation, detailed scheduling of the proposed mine and the calling of tenders for the supply of contract mining services.

Once all the technical studies have been completed, the economic model will be finalised and a formal recommendation made to the Board regarding the viability of re-starting commercially viable silver production at the Texas Silver Project.

“We are very pleased with the results from the metallurgical testwork programme, which effectively ticks another key box for this project as we continue along the path towards production,” said Alcyone’s Managing Director, Mr Andrew King.

“We are now moving into a very important phase of activity as we complete the economic review, complete the resource optimisation and develop a detailed mine plan which will provide a blueprint for the resumption of production, planned for later this year,” he added.

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.

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.

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.

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.

Figure 1: Aerial View of Twin Hills Mine



APPENDIX 1: MINERAL RESOURCE ESTIMATION

Table 1: Texas Silver Project, JORC Compliant Mineral Resources – March 2010

Deposit	Resource Category	Tonnes	Grade (g/t Ag)	Contained Silver (oz)
<i>Twin Hills</i>	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
<i>Mount Gunyan</i>	Indicated	1,756,000	76	4,267,000
	Inferred	350,000	58	650,000
	TOTAL:	2,106,000	73	4,917,000
TOTAL	ALL CATEGORIES	5,948,000	79	15,109,000

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).*