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ASX/MEDIA RELEASE

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Processing Optimisations to Impact Positively on Khnaiguiyah Feasibility Study

Highlights

- Zinc and copper to be campaign processed
- Recovery rates set to increase
- Clean concentrates to be produced
- Lower consumables/reagents to be used
- Favourable cash cost impact via lower consumables and improved recoveries

Khnaiguiyah DFS Update

Perth: Alara Resources Limited (ASX: AUQ) (**Alara**) is pleased to provide an update regarding the metallurgical testwork undertaken as part of the Definitive Feasibility Study (**DFS**) for the Khnaiguiyah Zinc-Copper Project in Saudi Arabia (**Project**).

Metallurgical Testwork - Summary of Findings

A review of the metallurgical testwork indicates that 'campaign processing', where material from different mineralised domains is processed separately, is the optimal processing methodology for the Project. Campaign processing will offer higher recoveries and considerable operating savings compared to bulk processing.

The recoveries expected from campaign processing are as follows:

- Greater than 92% recovery for zinc in both the zinc and the zinc-copper domains (increased from 91.5%);
- 84% to 98% recovery for copper in the copper-only domain (increased from 87%); and
- 75% to 82% recovery for copper in the zinc-copper domain.

The zinc and copper concentrates produced will be of high quality, easily transportable and attractive to smelter customers.

"The decision to undertake campaign processing, based upon the results of the metallurgical testwork, has resulted in material improvements in expected recoveries and operating costs over those previously thought. The recoveries for both zinc and copper are excellent and the concentrates produced will be very clean and attractive for smelters. These positive results from the metallurgical testing are an important milestone towards the completion of the DFS." **Shanker Madan, Managing Director**.

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Metallurgical Testwork

DFS metallurgical testwork was conducted on the Project from May 2011 to November 2012 on master and variability composites from Mineralised Zones 2 and 3 at the ALS Ammtec laboratories in Perth.

A total of 206 flotation tests were performed, including 17 locked cycle (LCT) flotation tests, where LCT is considered definitive for metallurgical response.

Approximately 200 litres of site water and seven tonnes of PQ diamond core were air freighted to Perth for metallurgical test work. This comprised a total of five diamond PQ drill core holes in K2 and a further five diamond PQ drill holes in Zone 3, representing various rock types and grades of mineralisation.

The Project mineralisation presents in three distinct domains, as summarised in Table 1 and Figure 1 below:

Table 1: Distribution of mineralisation across domains

Domain	Mineralisation	Proportion of total mineralisation (approx.)
Domain 1	Zinc	35%
Domain 2	Zinc + Copper	45%
Domain 3	Copper	20%

Level (m) A

Figure 1: Mineralised Zone 2 section showing distinct mineralised domains



The key findings from the metallurgical testwork conducted are:

- (1) The Khnaiguiyah zinc/copper mineralisation is free milling. It consists principally of coarse grained sphalerite and chalcopyrite. The minerals are liberated at a relatively coarse primary grind size of 80% passing 106 micron. The mineralised material hardness is moderate to hard with an average work index of 15.7kWh/t.
- (2) Processing on a 'campaign' basis according to discrete mineralised domains will increase recoveries and lower operating processing costs compared to bulk mining.
- (3) The comminution and flotation circuit is conventional. The comminution circuit consists of a standard SABC circuit. The production of copper and zinc concentrates is based on differential copper and zinc separation using standard rougher, regrind and cleaner flotation circuits using standard reagents and addition rates. To enable production of marketable grade products, the zinc rougher concentrates are reground to 80% passing 38 micron and the copper rougher concentrates are reground to 80% passing 18 micron.

(4) Excellent zinc recovery of greater than 92% at 5.8% Zn grade has been demonstrated by repeat laboratory locked cycle flotation tests for Zone 2 master composite with a head grade of 6.4% Zn. Similar results were achieved for the Zone 3 master composite with a head grade of 5% Zn (see Figure 2 below).





- (5) Copper recovery for Domain 3 in variability tests returned between 84% to 98% recovery.
- (6) Copper recovery for Domain 2 of 75% to 82% at greater than 25% Cu grade has been demonstrated. The copper recovery is lower than the zinc recovery due to some micron-size chalcopyrite occurring in the sphalerite matrix. This occurs in Domain 2 only.
- (7) Reagent consumption varies significantly from domain to domain. For example, reagent costs per tonne for Domain 3 are less than 50% of that for Domain 2.
- (8) The zinc and copper concentrates are of high quality and will be readily acceptable to smelter customers. The zinc concentrate contains a low level of iron (less than 4% Fe), which will make it attractive to smelters. No deleterious elements are present in either the zinc or copper concentrates.
- (9) The concentrate Total Moisture Level (TML) values are suitable for ship stowage and transportation. The zinc and copper concentrates filtration moisture levels are below the TML values. In the case of the copper concentrate, its moisture level is 12.2%, which is close to the TML value of 13.5%. This is due to its fine particle size.

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About Alara Resources

Alara Resources Limited (ASX: AUQ) is an Australian-based minerals exploration and development company with a diverse portfolio of projects in Saudi Arabia and Oman.

With a strong pipeline of advanced and early stage projects, Alara is moving towards establishing itself as an emerging base and precious metals development company.

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