



TERRAMIN AUSTRALIA LIMITED

# ANGAS ZINC MINE

# Community Newsletter

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## Angas Zinc is open

On September 17th 2008, the Angas Zinc Mine was officially opened by the Hon. Mike Rann, MP, Premier of South Australia. Staff, shareholders, members of the Strathalbyn Community Consultative Committee, along with the Minister for Mineral Resources Development and other dignitaries attended the event where Premier Rann unveiled a commemorative plaque, planted a native eucalypt and commended both community support for the project and Terramin's commitment to the region.

Executive Chairman of Terramin Australia, Dr Kevin Moriarty, said "We are grateful to the many local citizens and businesses that gave us encouragement and support in the years leading up to this momentous occasion. Angas Zinc Mine is a prime example of how technology can be used to minimise impact on both people and the environment, while achieving profitable production".

Refreshments were served by students from the Eastern Fleurieu School and guests were offered tours of the operating plant before and after the ceremony.



*Hon. Mike Rann, MP, Premier of South Australia planting a Eucalypt tree.*

## Terramin's zinc cargo sets sail

The first load of zinc concentrate from Angas Mine set sail from Port Adelaide on September 27, bound for smelters in South Korea.

The 5,500 tonne cargo was transported to the wharf at Port Adelaide in B-double semi-trailers averaging around four loads per day, since production began in July.

This shipment departed ahead of schedule and Angas Zinc General Manager, John Burgess, praised the efforts of all personnel on the site for achieving the milestone.

"We have achieved so much in a relatively short space of time and that is a credit to our employees," said Mr Burgess.



A second shipment of zinc concentrate was despatched on 16 November, with a third planned for early in the New Year. The refined pure metal is used in the car manufacturing and building industries and for producing batteries.



*The team at Angas Zinc would like to wish the Strathalbyn community a happy Christmas and a safe and prosperous new year.*

# Thickening at Angas Zinc Mine

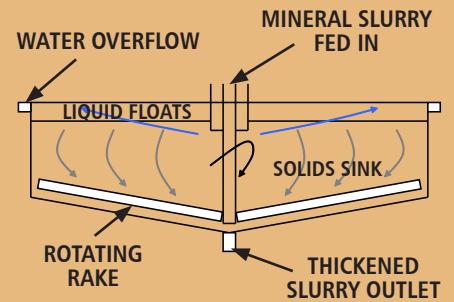
Following our article on froth flotation in the September newsletter, this edition we look at the next step in concentrate production - thickening.

The aim of thickening is to separate water from solid particles of lead and zinc.

The flotation process separates each mineral from the crushed ore to create three process streams – zinc, lead-copper-silver-gold and the tailings or waste. Each stream is treated in its own tank or thickener (see picture below), to which a special chemical called a flocculent is added to help the solid particles

stick together. This creates a thick slurry at the bottom of each tank, hence the term 'thickening'.

Thickener tanks have a cone-shaped base that allows the slurry to be drawn out while water is syphoned from the top and recycled through the plant. A rotating rake at the bottom of the tank keeps the slurry moving (see diagram). The thickened slurries of zinc and lead concentrate have a toothpaste-like consistency and are then filtered and dried. The tailings slurry is pumped directly to the tailings storage facility (TSF).



## Thickening Fast Facts

- The tailings thickener is the biggest of the three with a diameter of 9.0m and a processing rate of 39 tonnes per hour.
- The zinc thickener is 7m in diameter, with a processing rate of 9 tonnes per hour.
- The lead thickener is 4m in diameter, with a processing rate of 2 tonnes per hour.
- The thickeners operate 24 hours per day, 7 days per week.
- 20kg of flocculent is used each day in the combined thickening process.
- The thickened tailings and zinc and lead concentrates contain approximately 70% solids and 30% water.

## Meet the team

Returning somewhat to his roots, Andrew Harris recently started at the Angas Zinc Mine in the role of Mining Engineer. Growing up in suburban Adelaide, Andrew completed his Bachelor of Engineering at the University of South Australia, supporting himself by working part-time at a Chinese restaurant and washing rental cars. Before entering the mining industry in earnest, Andrew spent a year living in Japan teaching English.

Having worked previously at the Mt Lyell Copper Mine in Queenstown, Tasmania, on a fly-in-fly-out basis, and more recently, at the Stawell Gold Mine in Victoria, Andrew was pleased to relocate to Strathalbyn with his young family and be closer to home.

### Andrew Harris, Mining Engineer

As a mining engineer at Angas Zinc, Andrew is responsible for creating designs and plans for the mine to enable the safest and most efficient methods of accessing the ore for processing.

"My job at Angas Zinc provides a great opportunity to get involved in a project still in the early stages of mining.

"Working with rock is always interesting and challenging because you never really know what you will come up against", said Andrew of his new role.

Andrew met his wife, Naomi, through their church group. He is adamant that she fell prey to his irresistible charm. Regardless of truth in that story, they now have two beautiful children, Isaac who is 2 ¼ years



old, and Amber who is 10 months old. Andrew has a passion for his faith and family, and a keen interest in home-brewing, growing orchids and geothermal power.

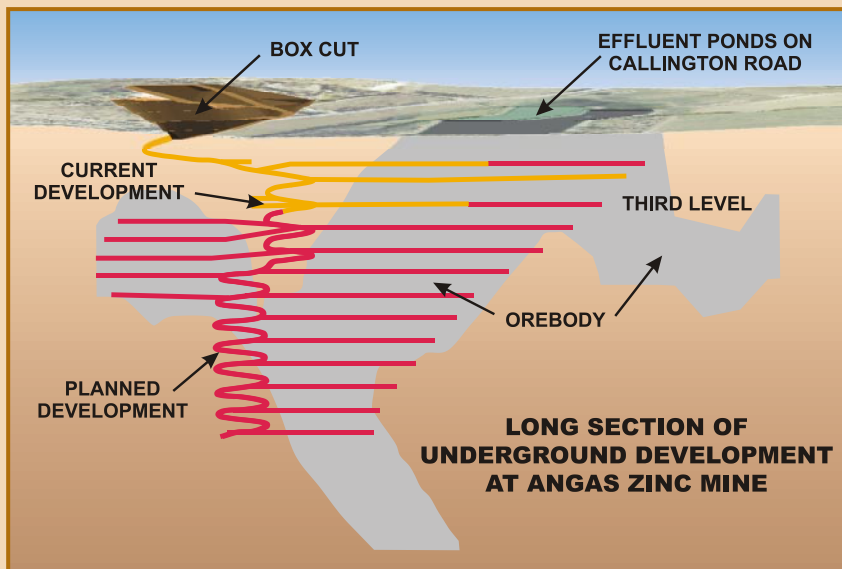
# Stoping Commences

In another milestone for the Angas Zinc Mine, the first stope of ore was blasted on November 1 and carted to the surface over several days. Prior to the blast, development tunnels were mined to allow access to the main ore body. Ore is currently being mined on the third level, 120 metres below the surface (see diagram). There are now 2km of development tunnels underground and miners are now making their way to the fourth level of the mine, 140 metres below the surface.

A new loader for use underground arrived in November, adding to the existing fleet of three. The loaders collect the broken rock after blasting and load it into underground trucks for haulage to the surface. The new machine is a Caterpillar Elphinstone R2900 with a bucket capacity of 15 tonnes.

Mining crews have received training in using remote visual controls to enable the retrieval of the blasted rock by an un-manned loader fitted with cameras.

Over the past two months, mining crews have undertaken a number of refresher or re-training courses, including site inductions, underground driving and signage.



Below Left: (from left) Jol Jardine, Mine Manager, Paul Vidiron and Colin Codlin, Underground Miners, inspect the new Elphinstone R2900 loader.

Below: Jol Jardine, Mine Manager, and Ben Gibson, Production Charge Hand, in the first stope.



## Angas Zinc supports 'Movember'

Several employees at the Angas Zinc site spent November looking a little hairier than usual, all in the name of charity. Around eight mill and underground personnel got into the spirit of 'Movember' by growing (or attempting to grow!) a moustache.

Of course, there is a serious side to 'Movember', with funds raised going towards various men's health initiatives.

Left: (from left to right) Arthur Walker, Neil Butler and Steve Gibbs.

# Community update



The 40 tonne dump truck on display at the Strathalbyn Show.

## Terramin out and about

October was a busy month with an information display at the Strathalbyn Show and the Terramin Australia race day at the Strathalbyn Race Course.

Cool weather on the Labour Day public holiday didn't deter crowds from the annual Strathalbyn Agricultural Show. Angas Zinc set up and manned a marquee displaying photos, information and samples from the mine and a 40 tonne Volvo underground dump truck created an impressive backdrop for photos.

Angas Zinc staff was on hand throughout the day to answer questions about mining and day-to-day operations at the site.

Terramin Australia race day brought 150 guests to the Strathalbyn race course. Business analysts, investors, shareholders, suppliers and staff from Adelaide and interstate enjoyed the spectacle and buses also shuttled guests to the mine site for guided tours during the day.

The Terramin Cup was convincingly won by horse number 4, cheered over the line by Angas Zinc General Manager John Burgess.



Right: Horse number 4 wins the 2008 Terramin Cup.



Above: Soaking up the atmosphere on the day was (from left) Rebecca Jarrett, Terramin Technical Support Coordinator, Sharon Cimarosti, Strathalbyn Race Course Manager, Kristy Martin, Angas Zinc Mine Clerk, and Anya Hart, Angas Zinc Environment Officer & Community Liaison.



Above: Roger Dunn, President of the Strathalbyn Swimming Club, receives a cheque from Anya Hart, Angas Zinc Environment Officer & Community Liaison.



Right: David Thomas, President Men's Section at the Strathalbyn Bowling Club, accepts the sponsorship cheque from Terramin.

## Supporting local groups

Angas Zinc has supported many local organisations, both financially and in kind, since becoming part of the Strathalbyn community. Recently, Angas Zinc contributed to assist the Strathalbyn Swimming and Bowling Clubs (above).

Anya Hart, Environment and Community Liaison Officer at Angas Zinc, gave presentations to students of Environmental Management, and Land Management & Conservation at Urrbrae TAFE campus in October.

Approximately 90 people toured the Angas Mine site during September, including the Styleton and Goolwa Probus Clubs, a group of TAFE students and a group arranged by Cynthia's Tours.

An additional 140 people joined tours during October, including guests of the Terramin sponsored race day, Year 10 science students from Urrbrae High School, a group of TAFE students, a SafeWork SA group and several more groups arranged by Cynthia's Tours.

**The visitors' viewing platform off Callington Road has now been re-opened to the public.**

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