

# Review of operations

Adelaide Brighton's strategy is to deliver operational improvement in terms of both plant output and operating costs, to develop its lime business and satisfy the increasing demand from the resources sector, and to pursue limited downstream integration positions in the concrete, aggregates and concrete products sectors.

To support this strategy, a structure of three separate business divisions, cement and lime, concrete and aggregates, and concrete products has been established. These divisions together with their respective trading entities are described in the review of operations on the following six pages. Our joint venture operations are described on page 16.

# Cement and Lime

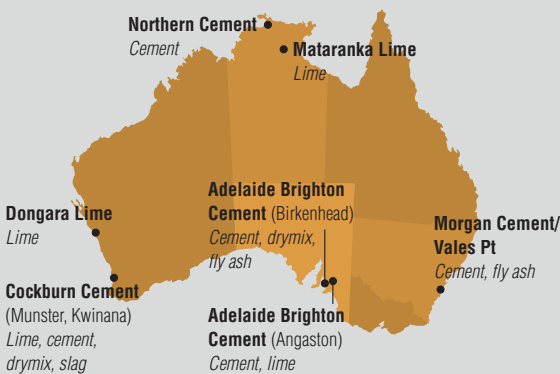
## Plant annual capacities

Plant	Clinker '000	Cement '000	Lime '000
Birkenhead	1300	1000	
Angaston	220	250	45
Darwin		250	
Mataranka			30
Munster*	550	900 <small>Munster 600/Kwinana 300</small>	900
Dongara			100
Morgan		500	
<b>Total</b>	<b>2100</b>	<b>2650</b>	<b>1000</b>

\*Capacity of clinker/lime can vary depending on demand and switching of kilns from clinker to lime

## Key events

- Record clinker outputs from all operations in 2004 - 4.1% improvement in total clinker output.
- Significant improvements in safety record.
- Tightening of import availability and increased import freight costs.
- Record lime production in Western Australia.
- Successful transition to contract dredging in Western Australia.



# Concrete and Aggregates

Hy-Tec's concrete plants total capacity is approximately 1 million cubic metres of concrete per annum. The plants are strategically located at:

*Queensland* - Maroochydore, Kawana, Narangba, Bracalba.

*NSW* - Auburn, Mascot, St Marys, Mulgrave, Plympton, Preston, Seven Hills.

*Victoria* - Dandenong, Fairfield, Kilmore, Kilsyth, Laverton, Mitcham, North Melbourne, Somerton.

Total concrete capacity 1 million cubic metres.

## Aggregates

Austen Quarry at Hartley, west of Sydney.

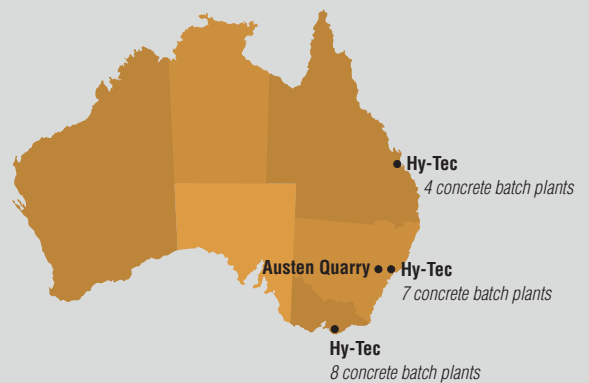
Potential 200 million tonnes of aggregate reserve.

## Key events

- Steady progress in all markets and reputation as key supplier to both residential and commercial sectors.
- Sales volumes maintained.
- Marked improvement in safety record.
- Raw material price pressures constrained margins.
- Board approval for \$28 million investment in design and construction of Austen Quarry.

## Concrete

Hy-Tec's concrete plants' capacity totals approximately 1 million tonnes per annum. The plants are strategically located at:

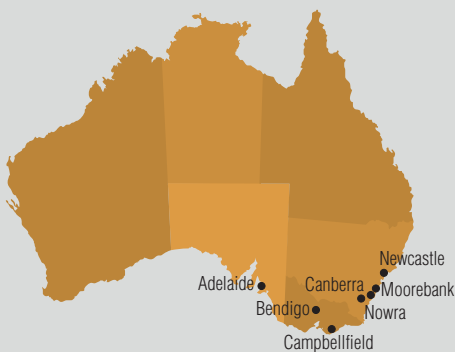


# Concrete Products

The C&M concrete products business is number two in the national masonry products market serving the New South Wales, Victorian and South Australian market through eight manufacturing plants.

### Key events

- Plant upgrades and commissioning of new plant at Nowra, NSW.
- Innovative new products launched: wet cast 'Citystone' range, 'Litec', 30% lighter than traditional block products.
- Commenced implementation of Adelaide Brighton's safety standards and procedures.



# Joint Ventures

### Sunstate Cement Limited (50%)

Located in Brisbane, with 1million tpa clinker grinding plant with bulk and bagged cement despatch facilities.



### Independent Cement and Lime Pty Ltd (50%)

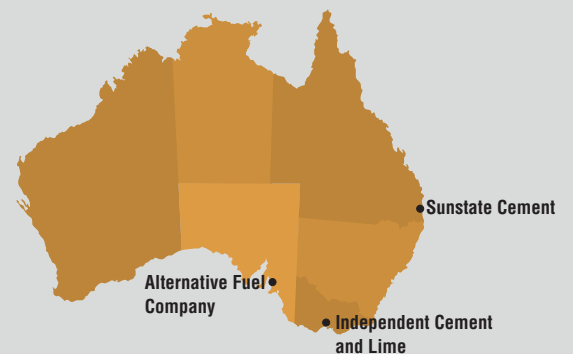
Waterfront cement terminal in Port Melbourne, Victoria, distributing bulk and bagged cement.



Independent Cement and Lime Pty. Ltd.

### Alternative Fuel Company Pty Ltd (50%)

Commenced in 2004, this innovative company produces and markets an alternative fuel from demolition timber waste. The alternative fuel is used by Adelaide Brighton Cement at Birkenhead as a fossil fuel substitute.



*Cement and Lime: Improved operational performance delivered record outputs of clinker and cement. Safety records showed a 60% reduction in injury rates led by the Birkenhead plant which had no lost time injuries reported during the year.*

### **Birkenhead and Angaston**

Based upon the progressive process of operational improvement, 2004 saw a record output from the cement and lime operations, with the Birkenhead plant leading the way with record clinker and cement output despite the disruption caused by the Moomba gas interruptions in the first quarter of 2004. A successful programme of planned maintenance during the May shutdown was a key contributor to this result.

Despite the interruption to gas supply from Moomba, Birkenhead was able to keep its major interstate markets and customers in Victoria and Queensland in supply, complemented by additional import shipments where necessary.

Birkenhead continued to progress its safety systems and passed the significant milestone of reporting zero lost time accidents during the year. This result was based upon the methodology of the Adelaide Brighton safety standards which are being progressively implemented throughout the Company.

The Birkenhead plant continues to operate in compliance with environmental standards. Progress was made during the year in defining a three-year environmental improvement plan designed to focus upon the key future priorities for the site.

The speciality products plant at Angaston also showed promising improvements during the year, focussing on optimising the output of the Brightonlite off-white cement for supply to interstate markets and for lime supplied to South Australia and the Northern Territory.

In addition to improving operational stability and output, efforts to reduce the manufacturing cost base continued. Investment was approved for the full scale combustion of wood waste at Birkenhead and the project is on track to meet permitted consumption levels during the second half of 2005.

### **Cockburn Cement**

The performance of the Munster operations, complemented by the Kwinana cement grinding facility, also delivered record outputs. Further investments were made in improving uptime and output of the lime kilns, allowing the clinker kilns to be dedicated to cement clinker manufacture.

An \$8.5 million investment in the Munster kiln 4 electrostatic precipitator commenced during the year. This significant commitment to reducing dust emissions will be commissioned during the first half of 2005.

2004 also saw a major transition of the Woodman Point shellsand operations. Shellsand is the core raw material input into the Western Australian cement and lime manufacturing process. During 2004, our in-house dredging fleet reached the end of its operating life, was retired, and following extensive planning and evaluation, the decision was made to outsource the shellsand dredging operation.

An important factor in this change involved the transition to a trailer suction dredge operation. This more efficient form of dredging allows the reworking of former dredged reserves and, as a result, extends the life of overall permitted reserves. The larger sized dredge improves operating capability in higher swell conditions and operates further offshore, thereby improving the rate of raw material dredging.

### **Customer service**

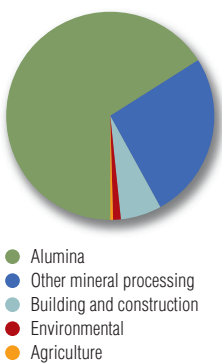
The consistency of the manufacturing process during 2004 enabled the Cement and Lime division to continue its focus on customer service and the reliable, timely delivery of product to the customer. Further investments to improve customer service were made in the drymix plant at Kwinana and the upgrade to the packing plant at Angaston to improve the throughput and presentation of finished products.



Martin Brydon  
General Manager  
Cement and Lime

### **Lime sales**

#### **Market sector demand**





*Port River Expressway Eastern Parade Bridge - part of the South Australian Government infrastructure development plan for Port Adelaide. The 270 metre bridge has been constructed using box steel girder beams supported by reinforced concrete columns and an insitu concrete deck slab.*

**Demand**

Following increased demand in Western Australia and Queensland in particular, the Company increased its import volumes during the year. The optimisation of the supply chain was made possible through Adelaide Brighton's long term south east Asian supply relationships and the ability to interchange supplies between the clinker import facilities at Morgan Cement in New South Wales, Northern Cement in the Northern Territory and Cockburn Cement in Western Australia.

**Morgan Cement**

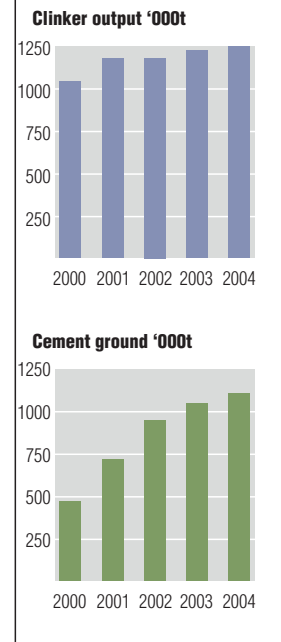
During the year, the Morgan Cement operation at Port Kembla in New South Wales, acquired as part of the purchase of Premier Resources in 2002, was integrated into the Cement and Lime division. After extensive review, Board approval was given to upgrade the clinker milling operation at Port Kembla with the outdated mills replaced by a larger single mill retained from the Company's Geelong Cement closure.

This investment will significantly lower the cost base of Morgan Cement, improve supply to the Hy-Tec and C&M downstream operations in New South Wales and ensure the optimal use of existing plant and equipment.

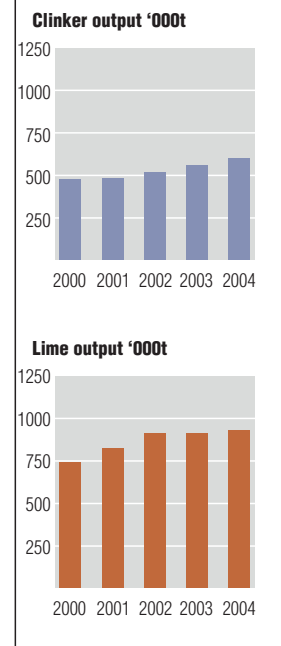


*Cockburn cement's new trailer suction dredge 'Volvox Anglia' in operation at Woodman point.*

**ABC cement and lime operations**



**CCL cement and lime production**



*Concrete and Aggregates: 2004* saw the establishment of Hy-Tec as a quality supplier of concrete to its core markets in central Queensland and metropolitan Sydney and Melbourne.

Hy-Tec made further progress during the year in establishing its reputation as a key supplier to both the residential and commercial construction sectors. The rationalisation of its batching plants in New South Wales and Victoria around the core Mascot and North Melbourne operations respectively has created an important supply base to the core CBD markets.



Mark Finney  
General Manager  
Concrete and Quarries

Sales volumes were maintained during the year with a weakening final quarter in New South Wales being offset by continued strong demand in Queensland. While raw material input prices increased and constrained gross margins, the business overall continues to make an important contribution to Company results.

Queensland is performing particularly well and continues to meet customer demand in a buoyant market. The Queensland business has been brought under the Hy-Tec brand while retaining the important connection to its Neil Mansell concrete identity and local reputation for customer service and quality.



*Hy-Tec's Maroochydore plant provided 32 and 40 mpa concrete and special panel mixes for the construction of the "Platinum" residential complex on the Sunshine Coast in Queensland.*

#### Quality and safety

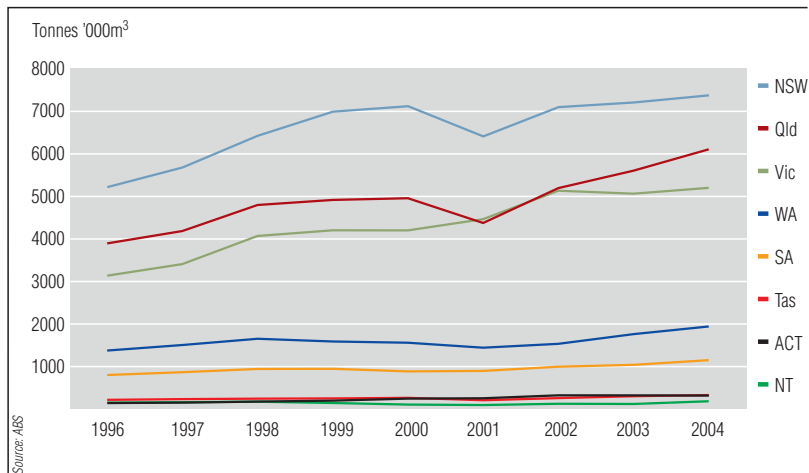
Hy-Tec's quality and safety standards were further enhanced during the year, leading to a marked improvement in its safety record and the establishment of the base for future improvement.

#### Austen Quarry

In the second half of 2004, the Board approved a \$28 million investment in the design and construction of the Austen Quarry. This strategic aggregate reserve will be an important source for aggregate supply to the western Sydney market when the Penrith Lakes reserves are depleted in approximately five years.

The Austen Quarry is based on substantial aggregate reserves near Lithgow in New South Wales. Initially it will supply the internal needs of Hy-Tec in western Sydney together with road base for local markets. Construction of the first phase of the project has commenced with commissioning expected to occur in 2006 and planned full scale commercial supply commencing in 2007.

#### Australian concrete production



*Hy-Tec's geographical spread of concrete plants in Sydney provides the flexibility to utilise supply from a number of concrete plants for large scale concrete pours.*

*Concrete Products:* The consolidation of C&M Brick Pty Ltd with Rocla Pavers and Masonry is now complete, with the focus upon the C&M brand, elimination of overlapping product ranges, operational efficiency and new product development.

### Plant upgrades

C&M's programme of plant improvements continued throughout 2004. The new plant at Nowra, New South Wales, was commissioned during the second half, reducing dependency on product transfer from the Victorian manufacturing base and the high cost of interstate freight transfers.

A new process control system and major kiln upgrade was installed at Moorebank, New South Wales, resulting in productivity improvements of over 50%.

The Adelaide plant has undergone a comprehensive upgrade, including the installation of a new block machine to be commissioned in April 2005. This improved manufacturing base will be capable of providing most of the C&M product range to the South Australian market.

An upgrade of the Newcastle plant, including installation of a new block machine and kilns, is nearing completion.



*'Stepstone' pavers - terrazzo like elegance, with a finish to ensure safety when wet.*

The upgrade and balancing of more efficient capacity will have the dual benefit of improved productivity and reduction of interplant transfer costs. The upgraded manufacturing base will accommodate new C&M products that will be progressively introduced during 2005.

### Product range

Two new product ranges were launched during 2004:

- The 'Litec' brick and block range, which is 30% lighter than traditional block products, offers improvements in bricklaying safety and efficiency and improved sound and fire resistance properties.
- The 'Citystone' range of wet cast pavers provides a new, wide choice of textures, sizes and colours in commercial grade paving.

These products will be progressively introduced into all C&M's markets.

### Safety

C&M's first step in the incorporation of Adelaide Brighton's core safety standards and procedures commenced in 2004 with initiatives to measure and report its safety record. The application of these standards will be of direct benefit to employee welfare and will reduce related insurance costs.



*Heavy duty 'Hollandstone' pavers, custom coloured to specification and surface finished to comply with the Australian standard for slip resistance.*



Colin Kupke  
Managing Director  
C&M Brick

*Joint Venture Operations:* Sunstate Cement and Independent Cement and Lime (ICL) continued to provide a valuable contribution to Company performance, with 2004 results supported, in particular, by the strength of the residential and non-residential construction sectors in Queensland and Victoria.

***Sunstate Cement, a joint venture between Adelaide Brighton and Blue Circle Southern Cement, maintains a manufacturing, storage and distribution facility with a capacity of over one million tonnes per year of both bulk and bagged cement products and remains a reliable supplier to Queensland's largest and most impressive projects.***

#### **Sunstate Cement**

Sunstate Cement performed well during the year, managing the challenges of increased market demand through its extended clinker supply chain from both the Birkenhead plant and imports. The ability to manage inventories and blend different clinkers to maintain a consistent product quality was vital to maintaining customer support.

Importantly, Sunstate Cement managed to retain its market share in SE Queensland in a very competitive environment. Furthermore, the company successfully developed an export market in neighbouring Pacific Islands, where sales of bagged cement continued to grow throughout the year.

***ICL, a joint venture between Adelaide Brighton and Barro Group Pty Ltd, is a specialist supplier of cement, cement blended products, and agricultural lime to a wide variety of industries, major retail outlets, and agricultural markets throughout Victoria and New South Wales.***

#### **ICL**

While ICL showed further improvement during the year, one-off administration expenses and higher input costs impacted the results. Demand for cement in Victoria was supported by a buoyant housing market and the commencement of several infrastructure projects. ICL continued to consolidate its position in NSW, albeit with modest growth being achieved in both bulk and bagged markets.

The strength of the Victorian market meant that supply from Birkenhead had to be supplemented with imported cement from Japan. Managing inventories and maintaining consistent supply to customers was an important factor in retaining their continued support.

***AFC, a joint venture between Adelaide Brighton and Resourceco, processes selected combustible construction and demolition waste (primarily timber waste) into fuel suitable as a replacement for traditional fossil fuels.***

#### **Alternative Fuel Company Pty Ltd (AFC)**

The Alternative Fuel Company Pty Ltd, a joint venture between Adelaide Brighton and Resourceco, was established in mid 2004. AFC is expected to provide a cost benefit to Adelaide Brighton through a reduction in the use of natural gas and key environmental benefits to South Australia by reducing the quantities of demolition wood waste sent to land fill and thereby providing a significant reduction in the generation of greenhouse gases.

Its first significant role is to provide up to a 30% substitution of the natural gas used at the Birkenhead cement plant through substitution with shredded wood waste.

The Birkenhead cement plant materials handling investment will be completed in mid-2005 facilitating the progressive build-up to full scale operation.



Tom Douglas  
General Manager  
Strategy and Business Development  
(Sunstate Cement and ICL)