

# AUSTRALIA

## SUNRISE DAM



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**About this report:**

AngloGold Ashanti is committed to reporting to a broad range of stakeholders. In addition to its operational and financial performance the company also reports on its economic, social and environmental performance – the so-called triple bottom line.

This country profile forms part of a broader group Report to Society, which is available on the company's website, or from the contacts detailed below.

**Graham Ehm**

Tel: +61 89080 3601  
 Fax: +61 89080 3687  
 E-mail: GEhm@anglogoldashanti.com.au

**General e-mail enquiries:**

investors@anglogoldashanti.com

Website [www.anglogoldashanti.com](http://www.anglogoldashanti.com)

**Message from Graham Ehm**

We believe and work in accordance with AngloGold Ashanti's values and business principles and, to bring life to our values, we conducted a series of workshops in 2005 in which groups developed their own values statement to apply to their workplace.

In 2005 we achieved a 25% reduction in lost-time injuries and restricted work cases. The identification and management of fatigue, and the improvement of our safety behavioural programme, ACTSAFE, were focal points for the year. Sunrise Dam was a finalist in the Chamber of Minerals and Energy's safety innovation awards.

There were no major environmental incidents although a number of minor incidents relating to hydro-carbon and saline water were reported. Water containment and flood water systems were expanded at the tailings storage facility where we continued to monitor wildlife activity closely as part of an Australian Centre for Minerals Extension and Research (ACMER) research project.

The members of the Boddington Joint Venture – AngloGold Ashanti, Newmont Boddington and Newcrest Operations – sought input from the community on the Boddington Expansion Project through community forums, newsletters and call centres. Sunrise Dam, in conjunction with the Curtin University, is working with the Laverton community to implement a 'Plants for People' project relating to natural resource enterprises and mine site rehabilitation.

At Sunrise Dam gold production continued to climb, achieving a record 455,000 ounces, an 11% increase on the total for the previous year. This higher productivity helped contain cost increases, particularly with regard to fuel prices and the open-pit mining contract. Consequently, cash costs increased marginally to \$269 per ounce.

In the year ahead, we aim to continue to improve our safety, health and environmental performance through a targeted risk reduction programme. We are aiming for certification to the environmental ISO 14001, safety OHSAS 18000, and International Cyanide Code standards.

Our production targets are challenging as we increase the contribution from the Sunrise Dam underground mine and we are looking forward to the start of the Boddington Expansion Project.

**Graham Ehm**  
**General Manager**  
**Operations: Australia**



## Introduction

Acquired at the end of 1999, the Australian operations (formerly Acacia Resources Ltd) comprise the Sunrise Dam and Boddington gold mines. AngloGold Ashanti has a 33.33% interest in Boddington which is currently on care and maintenance. In February 2006 the board approved the company's participation in the development of the mine. Whether the project goes ahead depends on approval by the joint venture partners.

Mining ceased at Union Reefs in the Northern Territory in the third quarter of 2003, and the assets of Union Reefs were sold to the Burnside Joint Venture in August 2004.

AngloGold Ashanti Australia exited the Tanami and Central Desert joint ventures during the year. The 40% interest has been transferred to Newmont Australia which has assumed responsibility for outstanding liabilities related to the joint ventures.



## Sunrise Dam

**Ownership:** 100% owned by AngloGold Ashanti

**Location:** Sunrise Dam lies some 220 kilometres north-north-east of Kalgoorlie and 55 kilometres south of Laverton in Western Australia.

**Geology:** The gold orebody at Sunrise Dam is structurally and lithologically controlled within gently dipping high-strain shear zones (for example, Sunrise Shear) and steeply dipping brittle-ductile low-strain shear zones (for example, Western Shear). Host rocks include andesitic volcanic rocks, volcanogenic sediments and magnetic shales.

**Mining and processing:** The mine comprises a large open-pit operation and an underground project. Mining is carried out by contractors and ore is treated in a conventional gravity and leach process plant.

**Performance in 2005:** Record production was achieved at Sunrise Dam in 2005, rising by 11% to 455,000 ounces of gold. Mining continued in the high-grade areas in the first half of the year as planned, but continued into the lower grade northern section of the pit from the third quarter. Volumes were supplemented by higher grade commercial production from the underground project. Recovered grade rose marginally to 3.68g/t which largely offset the effects of lower volumes, increased mining costs and higher fuel prices. As a result, total cash costs increased by only 3% to A\$352 per ounce (US\$269 per ounce). Gross profit, adjusted for the effect of unrealised non-hedge derivatives, was down at A\$60.3 million (\$46 million). Capital expenditure amounted to A\$44 million (\$34 million), a rise of 36% on the previous year, mainly because of increased expenditure on the development of the underground operation.

**Government remittances:** The Sunrise Dam operation paid A\$6.6 million (\$5 million) in royalties and corporate taxes of A\$7.9 million (\$6 million).

**Growth prospects:** Mining of the open pit will continue in the lower grade northern section of the mine for most of 2006, but will be supplemented by higher grade ore from the increasing commercial production accessed by development inclines and trial mining from the underground project.

The three-year underground project involves the development of two declines and 125,000 metres of drilling from surface and

underground. Declines have been developed in the vicinity of defined underground reserves which are now being mined. Deep drilling to date has confirmed that the sub-vertical, high-grade zones that have been a feature of open-pit mining at Sunrise Dam continue at depth. Mining will ramp up during the coming year with almost 30% of Sunrise Dam production coming from this source in 2006. A decision on whether to proceed to larger scale underground mining will be made early in 2007.

**Outlook:** Gold production is expected to increase to between 451,000 and 469,000 ounces, at a total cash cost of between \$268 and \$278 per ounce. Capital expenditure of between \$27 and \$28 million is planned, to be spent largely on further development of the underground expansion project.

\* Throughout this report \$ refers to US\$.



### Sunrise Dam

|                           |               | 2005 | 2004 |
|---------------------------|---------------|------|------|
| Gold production           | (000oz)       | 455  | 410  |
| Total cash costs          | (A\$/oz)      | 352  | 353  |
| Total cash costs          | (\$/oz)       | 269  | 260  |
| Total production costs    | (A\$/oz)      | 475  | 443  |
| Total production costs    | (\$/oz)       | 363  | 326  |
| Capital expenditure       | (A\$ million) | 44   | 33   |
| Capital expenditure       | (\$ million)  | 34   | 25   |
| Total number of employees |               | 375  | 356  |
| Employees                 |               | 95   | 88   |
| Contractors               |               | 280  | 268  |

## Boddington

**Ownership:** Operated by Worsley Alumina prior to closure at the end of 2001, Boddington has been managed since September 2002 by the Boddington Gold Mine Management Company under the direction of the Boddington Joint Venture partners, namely AngloGold Ashanti (33.33%), Newmont Boddington (44.44%) and Newcrest Operations (22.22%).

**Location:** The operation is situated approximately 100 kilometres south-east of Perth.

**Geology:** Boddington is located in the Archaean Saddleback greenstone belt in the south-west of Western Australia. The main zone of gold mineralisation occurs reasonably continuously over a strike length of over 5 kilometres and a width of about 1 kilometre. The previous oxide operation, which closed in 2001, produced approximately 6.1 million ounces over a mine life of 15 years from a lateritic deposit developed over a large basement resource. This basement resource, beneath the oxide pits, is hosted predominantly by andesitic volcanics and diorites, and contains both gold and

copper mineralisation that forms the basis of the recently completed updated feasibility study.

**Growth prospects and outlook:** The operation remained on care and maintenance pending the start of the Boddington Expansion Project. Work continued on updating the Boddington feasibility study, originally completed in 2000. An updated feasibility study on the basement mineralisation was completed in late December 2005 and is currently being reviewed by the joint venture partners. The updated study envisages an operation with a throughput of 35.2 million tonnes a year, producing an average of 815,000 ounces of gold and 32,100 tonnes of copper a year (272,000 ounces of gold and 10,700 tonnes of copper being attributable to AngloGold Ashanti) over a life of mine of 17 years. The estimated initial attributable capital cost is \$432 million.

If the joint venture partners give the project the green light, production will start in the third quarter of 2008.

## Mineral resources and ore reserves

Mineral Resources and Ore Reserves are reported in accordance with the minimum standard described by the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2004 edition), and also conform to the standards set out in the South African Code for the Reporting of Mineral Resources and Mineral Reserves (the Samrec 2000 Code). Mineral Resources are inclusive of the Ore Reserve component unless otherwise stated.

AngloGold Ashanti had Mineral Resources of 175.8 million ounces and Ore Reserves of 63.3 million ounces as at 31 December 2005. Of these, the Australia region accounted for Mineral Resources of 12.5 million ounces and ore reserves of 5.6 million ounces.



|   |              | Metric         |             |                       | Imperial     |              |                           |
|---|--------------|----------------|-------------|-----------------------|--------------|--------------|---------------------------|
|   |              | Tonnes million | Grade g/t   | Contained gold tonnes | Tons million | Grade oz/t   | Contained gold million oz |
| <b>Mineral resources</b> (as at 31 December 2005) |              |                |             |                       |              |              |                           |
| Australia   | Measured     | 62.4           | 1.15        | 71.9                  | 68.8         | 0.034        | 2.3                       |
|   | Indicated    | 164.5          | 1.04        | 171.5                 | 181.3        | 0.030        | 5.5                       |
|   | Inferred     | 143.0          | 1.01        | 144.7                 | 157.7        | 0.029        | 4.7                       |
|   | <b>Total</b> | <b>369.9</b>   | <b>1.05</b> | <b>388.1</b>          | <b>407.8</b> | <b>0.031</b> | <b>12.5</b>               |
| <b>Ore reserves</b> (as at 31 December 2005)      |              |                |             |                       |              |              |                           |
| Australia   | Proved       | 47.7           | 1.16        | 55.2                  | 52.6         | 0.034        | 1.8                       |
|   | Probable     | 102.5          | 1.17        | 120.2                 | 113.0        | 0.034        | 3.9                       |
|   | <b>Total</b> | <b>150.2</b>   | <b>1.17</b> | <b>175.3</b>          | <b>165.6</b> | <b>0.034</b> | <b>5.6</b>                |



## Community

A fundamental philosophy of the company is that its operations and activities should contribute towards long-term sustainable development and that communities should be better off for AngloGold Ashanti having been there. Total corporate social investment expenditure in 2005 was \$8,752,407, of this amount \$88,000 was spent in Australia.

AngloGold Ashanti's community policy in Australia states that long-term relationships and partnerships will be fostered with the communities in which it operates through mutual understanding, co-operation and respect. The social investment initiatives aim to deliver meaningful and lasting benefits to employees, the community and key stakeholders.

The company has developed formal communication strategies for managing and consulting with key stakeholders. Sunrise Dam is an active member of the Laverton shire and regularly hosts shire council meetings at the mine site. For aboriginal lands, annual community meetings are conducted to discuss current and planned mining activities and an annual report is presented to the community. Sunrise Dam also participates in annual state-wide Mine Open Days, which provide the opportunity for local and regional communities to visit the operations.

At the Boddington project, stakeholder engagement and community consultation have continued through monthly newsletters, the establishment of a toll-free call line, expansion plan updates on the website and community information workshops in anticipation of the recommencement of operations at some stage in the future.

A Community and Stakeholder Engagement Procedure has been developed so that all community projects and requests for assistance can be evaluated. A range of projects was supported during the year including the development and publication of the 30-year history of the Wongatha Wonganarra Aboriginal Corporation. The history of this organisation has been recorded in a book entitled *Willing People*, and was launched by the minister for indigenous affairs in August 2005. A long-time supporter of the Royal Flying

Doctor Initiative, the company is sponsoring the publication of the *Royal Flying Doctor Service Safety and Survival Handbook*.

### Engaging with communities

There are many legal requirements in Australia that dictate minimum standards for exploration and mining activities and these are reflected in a number of the standard operating programmes and practices. These are as follows:

- cross-cultural training for all new employees and contractors as part of the induction process;
- project- and/or area-specific induction for field and mine site staff highlighting safety, environmental and community aspects related to operational or exploration activities;
- training for field staff so they can recognise aboriginal archaeological sites, flora, fauna and geomorphological features that may be of cultural significance;
- ethnographic and anthropological consultations with indigenous people prior to the start of major exploration or mining activities to mitigate any damage to sites' special significance;
- compliance with voluntary codes of practice to the exploration industry; and
- assessment of local communities' capabilities to identify opportunities for the supply of services.

### Providing opportunities

The company provides opportunities to local indigenous communities to supply services and encourages contractors to do the same. A Supply Day initiative was started in 2004 and continued in 2005. This gives local indigenous communities a forum where opportunities can be identified for tendering for supplies and services. The company also works closely with Indigenous People in Mining, an industry and government network that fosters opportunities for aboriginal people within the mining industry.

### Awards

- Recognition from Ruggies Recycling for support of Princess Margaret Hospital and Royal Flying Doctor Service through donations made to the recycling programme
- Nominations for the 2005 Prime Minister's Business Partnership Awards in the division of longevity and community impact
- Recognition from the minister of indigenous affairs in the development and publication of *Willing People*



## Making a Difference Wongatha Wonganarra Aboriginal Corporation

Sunrise Dam's stakeholder and community engagement programme led to the publication of an account of an indigenous aboriginal community from Laverton, a town situated some 50 kilometres from the mine. Laverton's population numbers some 600 people. Entitled *Willing People*, the publication traces the trials and tribulations faced by the aboriginal people of this region, particularly in the 1960s and 1970s. It records the formation, in 1974, of the Wongatha Wonganarra Aboriginal Corporation (WWAC) with the objective of facilitating the social and economic development of the aboriginal people in the Laverton region and a transient population of some 1,500 people, who travel up to 600 kilometres to reach the centre.

The project of recording the WWAC story was born out of an alliance involving Curtin University of Western Australia, student volunteers from Tulane University of New Orleans in the United States, Placer Dome's Granny Smith Gold Mine and Sunrise Dam.

Each organisation became a partner in the production of the book by working together and contributing financial and other resources.

The WWAC has not only provided employment, but significant training opportunities across a range of sectors – in housing management, construction, business and office management, mining, seed collection, sports and environmental health. The corporation is strongly represented on local and regional forums dealing with a variety of issues including health, education, family violence and youth affairs.

*Willing People* provides a platform for this community which records the sometimes painful history of the founders of WWAC. Through their memories the book provides an acknowledgement of this past, the strong sense of community of the people involved and a fresh perspective on the future.

## Labour practices

AngloGold Ashanti Australia employs 95 employees and 280 contractors at its Sunrise Dam operation, a non-unionised workforce. Although no formal structures are in place, freedom of association is encouraged. Informal interaction takes place with employees and contractors on a daily basis.

Because the mine is in a remote location, accommodation is provided for workers who are flown in and out of site. The remoteness of the operation, however, results in a high turnover of staff and a full development plan is in place in order to retain as many skills and competencies as possible. Management training takes place through the group's Talent Management Programme which identifies and develops management for the future in three key areas: development, retention and monitoring of talent.

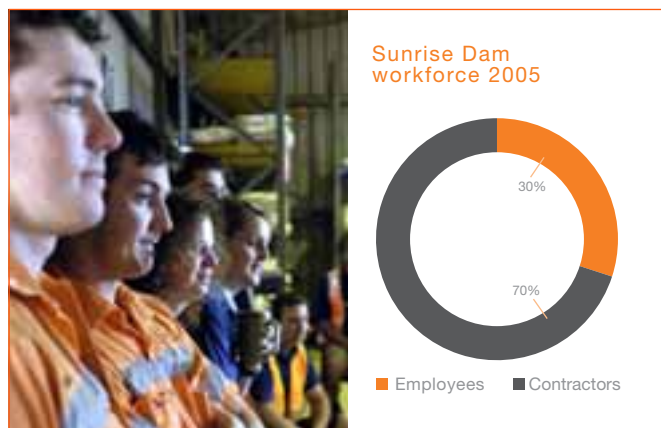
Health care is provided by the government's health system and employee-funded additional health insurance. It is also provided by on-site nurses and other health care professionals.

Australia abides by certain International Labour Organization (ILO) conventions, including 128 dealing with child labour and 29 dealing with forced and compulsory labour. Human rights are also protected through a wide range of agreements and policies at operational level, such as disciplinary, grievance and appeal procedures and non-discrimination procedures.

Discrimination and harassment are regulated by stringent Australian legislation. AngloGold Ashanti Australia's policy forms part of the induction process for new employees at Sunrise Dam and

regular training is provided for all employees. In line with company policy that promotes women in mining, Sunrise Dam reports progress on the advancement of women to government authorities annually.

In embracing cultural diversity, cross-cultural training for new AngloGold Ashanti Australia employees and contractors forms part of normal induction. The course also aims to demonstrate the links between Aboriginal culture and the local environment as well as to bridge the gap between Western and Aboriginal cultures.





## Environment

AngloGold Ashanti's environmental management and practices are guided by the group's business principles and environmental policy. In addition, operations are subject to the environmental laws, rules and regulations of the various countries in which they are situated. Where no such laws exist or where these laws are perceived to be inadequate, those operations follow the company's business principles, environmental policy and the tenets of good practice.

Environmental policy and strategy is driven at a corporate level and within each region, the regional environmental manager provides advice to the relevant management team/s. At the operations, on-site environmental professionals are responsible for implementing the mine's environmental programme and advising the general manager. Regional environmental offices and the operations themselves may also engage specialists who consult to the operations.

As a signatory to the Australian Minerals Industry Code for Environmental Management (Code 2000), the Australia region is committed to annual site audits in terms of the code. The audit performed by RISKMIN (certified auditing company) in February 2005 indicated a 71% level of compliance. These standards are being used to develop the ISO 14001 system. Annual statutory audits are also performed in this region by the Western Australia Department of Industry & Resources and the Western Australia Department of Environment.

In 2005 no major incidents occurred at the Sunrise Dam operation in Australia.

### Use and management of cyanide

The use of cyanide in the recovery of gold is a core concern for the gold mining industry and is critical to its viability. AngloGold Ashanti has been actively involved in the development of the International Cyanide Management Code and has adopted the published protocols and standards of practice for cyanide management.

In January, Sunrise Dam in Australia was audited against 31 cyanide code categories and was found to be compliant with 29 categories and substantially compliant with two categories.

### Cyanide management in Australia

AngloGold Ashanti Australia has taken a leading role in the Australian gold industry by engaging in discussions with the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) and its review of the Priority Existing Chemical assessment process for sodium cyanide. Monitoring data provided by ten leading gold mining companies, together with site visits and further discussions with industry representatives, including the Australian Gold Council and the Minerals Council of Australia, will assist NICNAS in fully understanding the management of sodium cyanide by the Australian gold mining industry.

Fauna mortalities associated with exposure to elevated  $CN_{WAD}$  levels in tailings discharges at Sunrise Dam, have been addressed by managing  $CN_{WAD}$  discharges to the lowest levels practicable. The design of the tailings facility incorporates the release of thickened tailings from a central, raised discharge point so as to limit the extent of surface 'ponding', thus reducing the facility's attractiveness to wildlife.

The hyper-saline composition of the discharge solution may further discourage fauna from using ponded water and this, together with other strategies to reduce/eliminate the impact on the local fauna, is being investigated in collaboration with the Australian Centre for Minerals Extension and Research (ACMER) as part of an international study.

In addition to addressing the potential risks to wildlife associated with cyanide, Sunrise Dam has addressed the impact of fauna mortalities associated with tailings entrapment by building an electrified fence around the tailings facility to prevent access by the local fauna.

### AngloGold Ashanti Australia – environmental statistics 2005

|                               |                |           |
|-------------------------------|----------------|-----------|
| Total environmental liability | \$ million     | 32.7      |
| Cyanide use                   | kg             | 1,671,551 |
| Water usage                   | m <sup>3</sup> | 2,989,962 |
| Energy use                    | GJ             | 2,149,981 |

### About ISO 14001

The International Organization for Standardization (ISO) is a voluntary not-for-profit network of national standards institutes from 146 countries with a Central Secretariat in Geneva, Switzerland, that co-ordinates the system. ISO 14001 focuses specifically on environmental management systems, and was first published in 1996. It applies to those environmental

aspects over which the organisation has control and over which it can reasonably be expected to have an influence.

ISO 14001 certification is the only ISO 14000-series standard against which it is currently possible to be certified by an external certification authority. Based on regular auditing by an appropriately accredited external body, an organisation may state that it is ISO 14001 certified.

## Occupational safety and health

Sunrise Dam's lost-time injury frequency rate (LTIFR) per million man-hours improved to 3.06 in 2005 from 3.73 in 2004.

### Managing safety and health

Risk management is a primary safety management tool, to which all new projects and day-to-day activities are subjected. Each department has identified all of their risks and controls and there will be a review of these registers for compliance during 2006.

Since the mine operates on continuous rotational shifts, fatigue is considered one of the highest safety risks at the mine. Some evidence suggests that sleep deprivation, sleep disturbances and fatigue are health risks commonly associated with long working hours. Fatigue has also been identified as a potential health risk related to work that involves shifts or regular or periodic night shifts.

Because of its location, most employees who work at Sunrise Dam gold mine live in Perth and surrounding areas and are engaged on a fly-in/fly-out (FIFO) roster, where they work for 14 days at the mine and then spend seven days at home.

As part of their induction training, all employees – both AngloGold Ashanti employees and contractors – must complete a compulsory module on fatigue management. This covers aspects such as what is fatigue, the cause and effects of fatigue, circadian rhythms, sleep factors, work factors, health factors, danger periods, sleep debt, stimulants and ways of reducing fatigue.

During 2005, Roche Mining, the main contractor on site at Sunrise Dam (employing 60% of employees on site), conducted a fatigue management training programme for all its employees. The programme covered aspects included in induction training, as well as the effects of drugs and alcohol, managing shift change, eating, exercising, life away from work, and evaluating and developing individual fatigue plans. The programme has been accepted by Roche employees as an essential part of their training.

A code of practice has also been drafted by a tripartite consultative committee comprising government, union representatives and industry associations. The draft code of practice on working hours lists hazards that have been identified against a general risk indicator

ranging from low risk to high risk. Those at low risk include those working on average 34 to 40 hours a week, while those at high risk are those working above 56 hours a week. In terms of daily working hours, those working eight hours a day are at low risk, while those working 12 hours a day or more are at high risk.

Sunrise Dam has evaluated its operations against this code and has identified areas that can be improved upon. All contractors at Sunrise Dam have also evaluated their own operations against the code using the template developed by Sunrise Dam and are working towards compliance with the code.

Since the majority of operational mining and processing is outsourced to contractors, they are included in an evaluation of the company's risk profile.

AngloGold Ashanti uses 'leading' and 'lagging' indicators in monitoring safety and health performance. While most lag indicators are common across all operations, lagging indicators are operation-specific and related to individual risks at individual mines. At Sunrise Dam specifically, staff turnover is regarded as a leading indicator.

### Emergency management

An integrated crisis and emergency management plan is in place. The preparedness of the emergency response team is tested regularly by simulations either with mock desktop or on-site scenarios.

### Employee participation

Although Sunrise Dam is not unionised, the mine encourages employee involvement and consultation in the belief that safety and health is as much the responsibility of individuals as it is of management. This is extended to contractors who are also required to comply with AngloGold Ashanti's safety principles. Communication is important in creating safety awareness and cultivating a safety mindset. This is achieved internally through a variety of communication tools, including meetings, notices and the intranet. External communication is also conducted with a wide range of stakeholders, at formal and informal levels.



### Awards

Sunrise Dam was a finalist in the Chamber of Minerals and Energy Safety and Health Innovation Awards for a device to eliminate accidents when using hand-held electrical tools. The mill operating team came up with the idea of putting a tag on hand-held tools to describe the safety equipment (i.e. eye, ear and hand protection) to be used when operating them. The tag also describes the noise rating for each tool.

