



Tropicana is one of two AngloGold Ashanti mining operations in its Australasia region. Tropicana, a joint venture between AngloGold Ashanti (70% and manager) and Independence Group NL (30%), is located 200km east of Sunrise Dam and 330km east-northeast of Kalgoorlie. First gold was poured ahead of schedule and on budget in September 2013, following development approval in November 2010. The open pit operation features a large-scale, modern processing plant which uses conventional CIL technology and includes high-pressure grinding rolls for energy-efficient comminution. Mining is undertaken by a contract mining company and the plant is owner-managed.

TROPICANA
AUSTRALIA

HIGHLIGHTS

ONE MILLIONTH OUNCE DELIVERED

as second full year of production completed

IMPROVED PLANT THROUGHPUT

rate offsets lower head grade

STUDIES UNDERWAY

to assess low-cost mining of down-dip ore body extensions

IMPROVED SAFETY

performance

GAS PIPELINE

to mine completed ahead of schedule

ALL-IN SUSTAINING COSTS

of \$671/oz, down by 11%

As at 31 December 2015:

- **MINERAL RESOURCE** of 4.40Moz (inclusive)
- **ORE RESERVE*** of 1.83Moz

*Attributable

OPERATIONAL PERFORMANCE

Production

Tropicana achieved production guidance in 2015, producing 491,000oz, of which 344,000oz was AngloGold Ashanti's share. The mine reached its one millionth ounce on schedule, just over two years since pouring first gold. Production was 4% lower than in 2014 due to the decrease in the average head grade to 2.57 g/t, which is consistent with the grade streaming strategy that underpins the life-of-mine plan, premised on higher grades being treated in the first years of production, gradually declining to the life-of-mine head grade of approximately 2.0 g/t.

The lower grades in 2015 were partially offset by an increase in throughput in the processing plant to 6.2Mt (2014: 5.7Mt). Metallurgical recoveries remained steady at approximately 90%. Mill-to-mine reconciliation, in terms of both tonnes and grade, continues to align well. During the year, mining was carried out in the Tropicana, Havana and Boston Shaker pits. Mining productivity

improved significantly, resulting in better-than-planned volumes of material and ore mined.

Costs

At Tropicana, studies are being carried out to assess an alternative, low-cost approach to mining the down-dip extensions of the Havana and Tropicana pits, along with extensions to the north and south. The mining study is examining at the application of mining techniques that are used more commonly in mining other commodities such as coal. The work is based on a starter pit followed by strip mining of a large cutback, then backfilling the mined-out areas. This approach, which is aimed at extending the mine life, would reduce stripping costs substantially with in-pit dumping of waste and shorter haulage distances.

Growth and improvement

A substantive Mineral Resource definition programme is being carried out as part of this study, supported by data generated by 3D seismic surveys conducted in 2014 and

2015. This data has enabled the mineralised zones down-dip of the Tropicana ore bodies to be imaged, generating a structural model to help cost-effectively target deep drill holes. The first drill testing of these targets in 2015 returned encouraging results and confirmed the structural interpretation. It is expected that approximately 130,000m of drilling will be carried out at Tropicana in 2016.

Processing plant optimisation work is also underway at the site to debottleneck the processing plant, maximise usage of the larger pieces of equipment, and increase throughput from annual nameplate capacity of 5.8Mt to between 7.0Mt and 7.5Mt, through staged increases.

The increase in throughput will offset the production decline that will occur as grades decrease over time, as per the mine plan. Upgrade work will be conducted during 2016 with the benefits expected to be realised from 2017 onwards.



For further information on our activities relating to safety, employee wellness, health care, employee and labour relations, the environment, community relations and community development work, see the Australasia regional review in the Integrated Report 2015, available at www.aga-reports.com/15/ir/topics/ir/performance/context, and the Sustainable Development Report, available at www.aga-reports.com/15/sdr/home.

TROPICANA – KEY STATISTICS

	Units	2015	2014	2013
Operational performance				
Cut-off grade ⁽¹⁾	oz/t	0.020	0.020	0.020
	g/t	0.70	0.70	0.70
Average recovered grade	oz/t	0.072	0.081	0.070
	g/t	2.48	2.78	2.40
Tonnes treated/milled	Mt	4.3	4.0	0.9
Gold production (attributable) ⁽²⁾	000oz	344	358	66
Total cash costs	\$/oz produced	492	545	568
All-in sustaining costs	\$/oz sold	671	752	1,113
Capital expenditure (attributable)	\$m	48	59	241
Productivity	oz/TEC	65.69	65.03	47.37
Safety				
No. of fatalities		0	0	0
All injury frequency rate (AIFR)	per million hours worked	6.80	9.96	8.60
People				
Total average no. of employees		436	458	468
– Permanent		90	101	174
– Contractors		310	357	294
Environment				
Water usage	ML	4,877	4,883	⁽³⁾ 2,097
Water use efficiency	kL/t	0.79	0.86	1.71
Energy usage	PJ	3.17	3.23	0.74
Energy intensity per tonne treated	GJ/t	0.52	0.57	0.60
Greenhouse gas (GHG) emissions (CO ₂ e)	000t	220	224	51
GHG emissions intensity	000t CO ₂ e/t	36	39	–
Cyanide usage	t	2,770	3,220	0
No. of reportable environmental incidents		0	0	2
Total rehabilitation liabilities	\$m	31	33	24

⁽¹⁾ Based on the Ore Reserve.

⁽²⁾ Production began in the fourth quarter of 2013.

⁽³⁾ Excludes pre-production water usage at Tropicana.