# **Exploration review**

In 2011, we strengthened our position in Australia with successful exploration drilling in support of our Australian business units, and continued to grow our portfolio to prepare for future exploration campaigns.

## 2011 Key performance highlights

- → Drilled nine exploration wells in 2011, six encountering hydrocarbons.
- → Acquired or purchased over 12,400 km² of 3D seismic data.
- → Strengthened portfolio with seven new Australian permits.

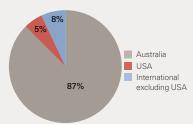
# Future objectives

- → In 2012 drill six wells in Australia, one in the Republic of Korea and participate in drilling in the Gulf of Mexico.
- → Acquire and purchase more than 12,000 km² of new 3D seismic.
- → Continue to strengthen our exploration portfolio.

# Exploration spend by year (US\$M) 888 418 882 07 08 09 10 11

Recent high exploration activity levels have been focused on delivering our growth strategy.

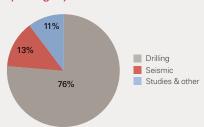




Consistent with our strategy, the majority of our exploration expenditure occurred in Australia

Woodside permits | Woodside fields Gas Oil

# 2011 Exploration expenditure by category

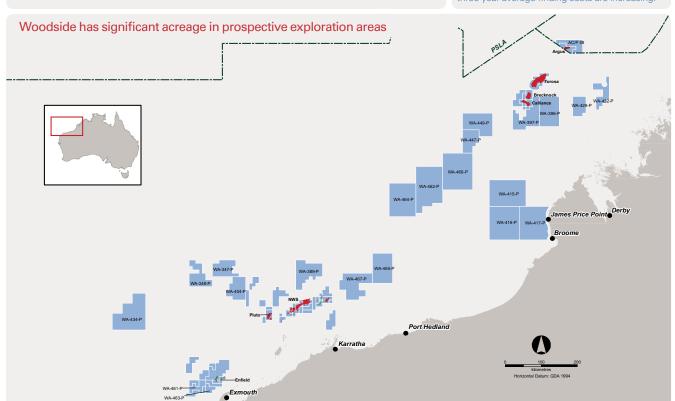


The majority of exploration spend was focused on drilling in order to support our foundation business and growth strategies.

# Three year running average exploration finding costs



Although affected by Browse evaluation costs, three year average finding costs are increasing.



# Strong Australian focus

Within Australia, Woodside drilled wells to support Pluto expansion; the Browse business unit; our foundation NWS business; and our producing oil assets. During 2011, nine exploration wells were drilled in total, 67% of which encountered hydrocarbons. Internationally, the Gulf of Mexico team was focused on maturing the portfolio to deliver promising candidates for the upcoming exploration campaign, while in the Republic of Korea the Jujak prospect was fully matured for drilling.

### Expanding permit portfolio

Seven new exploration permits were added to the Australian exploration portfolio during 2011. These additions, combined with three permit relinguishments, take the total number of Woodside exploration licences to 33, of which all but one are operated by Woodside. The adjacent maps for the Browse and Carnarvon Basins show the locations of our acreage holdings. Within Australia we remain committed to supporting and optimising value through our existing and planned infrastructure, and ensuring that we remain exposed to opportunities to create growth via new infrastructure hubs. Internationally, we will continue to look for new opportunities to help balance the portfolio.

### **Encouraging drilling results**

Six wells successfully encountered hydrocarbons from the nine exploration wells that were drilled during 2011.

WA-404-P, Greater Pluto, Central hub Woodside 100% (operator)

Two exploration wells were drilled in WA-404-P during 2011. Martin-1 was finalised during early 2011 with the well encountering gas within the objective Triassic Mungaroo Formation. Kelt-1 failed to encounter hydrocarbons.

WA-434-P, Greater Pluto, Claudius hub Woodside 100% (operator)

Two wells were drilled in WA-434-P. Cadwallon-1 encountered gas in the primary objective; however the discovery is sub-commercial. Genseric-1 failed to intersect hydrocarbons.

WA-36-R, Laverda Retention lease Woodside 60% (operator)

Opel-1 was drilled to test a prospect adjacent to the Laverda Oil Field. Opel-1 successfully encountered gas and oil within the primary objective Macedon sands.

WA-34-L, Pluto Production Licence Woodside 90% (operator)

Xeres-1 was drilled to test a fault block adjacent to the Eris gas accumulation within the Pluto Production Licence. Xeres-1 successfully encountered gas within the primary objective Mungaroo Formation.

WA-397-P, Browse Basin Woodside 50% (operator)

Omar-1 was drilled to evaluate the gas bearing potential of the Plover Formation. Encouraging gas shows were encountered, however reservoir quality was poor and the well was classified as a dry hole.

WA-3-L, North West Shelf Venture Woodside 15.78% (operator)

Seraph-1 successfully appraised the Angel Gas Field, and drilling then continued to evaluate deeper exploration potential. Seraph encountered gas within the primary exploration objective and two secondary objectives. Reservoir quality was poorer than predicted and as a result, commerciality for the discovery is yet to be determined

WA-5-L, North West Shelf Venture Woodside 15.78% (operator)

Tidepole East-1 was drilled to evaluate the hydrocarbon bearing potential of a faulted terrace adjacent to the Tidepole Gas Field. Tidepole East-1 encountered gas, with discovered volumes expected to be produced via the Greater Western Flank Project at a future date.

Refer to map on page 20 for location of acreage and exploration wells.

# Australian outlook

In 2012, Woodside plans to drill six wells in Australia, of which, four are in support of LNG growth, and two are oil prospects in the Greater Exmouth Area.

A pause from drilling will then occur to allow time for further portfolio maturation. In addition, Woodside expects to acquire in excess of 12,000km<sup>2</sup> of new 3D seismic data in Australia, from a combination of new proprietary acquisition and multiclient purchases. This data will be used to explore recently acquired acreage and mature existing prospects.

### International outlook

Woodside also retains opportunity for growth outside Australia with exposure to exploration and development in selected international areas. In the deepwater Gulf of Mexico, the Exploration Division expects to participate in drilling in 2012.

In the Republic of Korea, Woodside holds a 50% interest in offshore block 8/6-1 N, and plans to drill the Jujak-1 exploration well in 2012. In Peru, Woodside has a 20%, non-operated interest in onshore block 108, which is currently under force majeure conditions. Once the force majeure conditions cease, Woodside plans to acquire 800km of 2D seismic.

Further discussion of Woodside's international activities is contained on pages 36 and 37 of this report.

### Overview

# Community engagement

Our social investment strategy is focused on supporting health, the environment and the communities in which we operate.

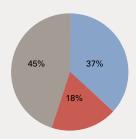
# 2011 Key performance highlights

- → We contributed A\$7.7 million worth of social investment to the communities in which we operate.
- → Our staff volunteered 3,484 hours, valued at A\$0.6 million.

# **Future objectives**

- → Announce our third and final tier one social investment partner in the Creative Energy category.
- → Increase our social investment contribution to meet a target of 0.5% of Profit Before Tax (PBT) by 2015.

# Woodside's social investment by category 2011



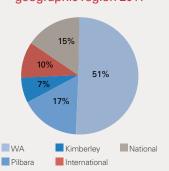
Living energy - personal health and wellbeing

Natural energy - environmental health and wellbeing

Creative energy - community health and wellbeing

Woodside's social investment strategy is a three tiered funding model focused on health and well being.

# Woodside's social investment by geographic region 2011



NB: WA includes social investment programs which were implemented in two or more WA locations.

Woodside's social investment program focuses on supporting the communities in which we operate.

# Assessing the social impact of our business and planning for the future

Social impact considerations are included in our project planning processes. Our operating standards ensure stakeholder and social impact management plans are developed and implemented.

We progressed two key social impact assessments (SIA) in 2011:

Pluto: As construction comes to completion an independent review is underway to determine whether anticipated impacts actually occurred and to assess the success of our impact mitigation strategy. The review involves interviews with internal and external stakeholders. The findings will inform business planning and decision making for any future expansion.

Browse: The SIA for the proposed Browse LNG Development in the Kimberley region of Western Australia will be completed in 2012. The SIA has been undertaken in conjunction with the State Government's program of social, environmental, native title and Indigenous heritage studies. Input from a broad range of stakeholders has been included. We have also spoken directly with Broome and Dampier Peninsula residents. This local input is helping us to develop plans to manage potential social impacts.

### Reconciliation Action Plan released

Woodside released the 2011-2015 Reconciliation Action Plan (RAP), which will underpin our efforts over the next five years to advance Indigenous reconciliation within our company and the wider community.

Every commitment in the RAP, grouped under the headings of Respect, Relationships and Opportunities, is defined by a set of measurable goals to be achieved between 2011 and 2015. Woodside will provide a public report each year to communicate the achievements against each commitment within the RAP.

# Investing in community health and well-being

Our focus for social investment is to contribute to health and well-being at a personal, community and environmental level. Our three-tiered funding structure supports community-based organisations at a regional, state and national level.

This year our voluntary social investment was A\$7.7 million. Our total social investment, inclusive of management costs, was A\$13.7 million. In addition to our company's financial contribution to

supporting community organisations, our employees donated A\$0.2 million of their own money.

Our employees also participated significantly in our corporate volunteering program, contributing 3,484 volunteering hours, valued at A\$0.6 million.

In 2011 we announced a second national tier one partnership. By working closely with Conservation Volunteers Australia a holistic approach to national marine eco-system conservation and environmental citizenship was developed, the Coastal Guardians program.

Our partnership program with Ngala 'Nurturing the Pilbara' won a global Excellence Award for Social Responsibility at the 20th World Petroleum Congress in Doha, Qatar. The program began in Karratha in 2008, it provides proactive parenting education, resources and support to families living and working in remote and rural communities.

Our social contribution internationally focuses primarily on Timor-Leste. Specifically, we and our Sunrise joint venture participants support projects like the Be'e Ba Moris 'Water for Life' program through World Vision. In 2011, we and our Sunrise joint venture participants contributed \$US500,000 to fund this initiative which has significantly improved sanitary conditions in the Baucau district.

The approach to delivering cultural heritage projects in the Pilbara has been extended to the Kimberley and South West regions of Western Australia in 2012. Cornerstone projects include a repatriation program delivered through the Kimberley Aboriginal Law and Culture Centre and cultural leadership development programs facilitated by the South West Aboriginal Land and Sea Council.

### Outlook

In 2012 the start up of our Pluto LNG Project will provide us with further opportunity to contribute to community development and capacity building in the Pilbara region of Western Australia. We remain focused on completing our social impact assessment for the Browse LNG Development and outlining a strategy in which we can deliver positive outcomes to the Kimberley region of Western Australia.

### **Tina Thomas**

Senior Vice President Corporate

# **Environmental** report

Our long term business success depends on our ability to understand our current and future operating environments, the potential impact of our activities and ability to implement appropriate management and mitigation strategies.

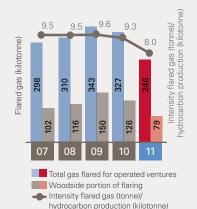
# 2011 Key performance highlights

- → Flared gas emissions intensity reduced by 14%.
- → The newly commissioned Okha FPSO is up to 30% less emissions intensive than the FPSO it replaced.

# **Future objectives**

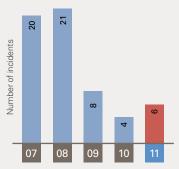
- → Maintain low level of environment incidents.
- → Continue to mitigate, manage and monitor potential environmental impacts from our operating activities.

# Flare gas and intensity



During 2011 our flared gas emissions intensity decreased to 8.0, partly as a result of improved production reliability across our operated facilities.

# Environmental incidents\*



\* Environmental incidents reported to regulators

Woodside reported six incidents in 2011 in accordance with our legal requirements.

# Our Approach

Our activities are conducted in accordance with an environmental management framework that forms part of the broader Woodside Management System.

Woodside adopted the following strategic imperatives in 2011, as part of our Environment Strategy:

- Maximise resource efficiency
- Design to minimise life cycle costs
- Maintain environmental compliance and integrity
- Control environmental impacts
- Facilitate effective approvals; and
- Work with stakeholders.

# Excellent environmental performance

Woodside did not receive any environmental fines or penalties related to environmental incidents in 2011. We reported six incidents to regulators in accordance with our legal requirements. Of these, five resulted in no measurable environmental impact and one related to a release of diesel from a line at the Karratha Gas Plant which was contained to site.

During 2011, our flared gas intensity decreased to 8.0 tonnes of gas flared per tonne of hydrocarbon produced, partly as a result of improved production reliability across our operated facilities. A total of 221,528 tonnes of gas was flared. Flare reduction initiatives included the recommissioning of the re-injection compressor on the Ngujima-Yin FPSO which had been damaged by fire in 2009, allowing excess gas to be injected into the reservoir rather than being flared.

In 2011, the greenhouse gas emissions from Woodside-operated facilities decreased by about 450,000 tonnes CO<sub>2</sub>e to 7.9 million tonnes CO<sub>2</sub>e. Woodside's share of these emissions is approximately 1.9 million tonnes. The decrease arose from operational factors including planned maintenance events of the Karratha Gas Plant and retirement of the Cossack Pioneer FPSO.

# Funding award-winning research

Woodside continues to fund robust scientific research with key partners to understand our current and future operating environments. This research is used to underpin our decision making processes, and allow us to manage and minimise potential environmental impacts. Since 1993 Woodside has invested, on behalf of the Browse joint venture participants, over A\$80 million to understand the marine and terrestrial environments of the Kimberley region. This Scott Reef Environmental Research Program undertaken with the Australian

Institute of Marine Science and the Western Australian Museum is one of the longest running and most comprehensive studies of an offshore coral reef ecosystem ever undertaken. The findings of this research program are highlighted in the Scott Reef Status Report which was released in 2011.

This research and knowledge has underpinned our development decisions and the recently released draft Browse Upstream Environmental Impact Statement.

Our collaborative approach to environmental understanding and management is demonstrated by our long-term partnership with the Western Australian Museum. The research, which has been undertaken in the waters of the Pilbara and Kimberley, has identified 10,700 species to date, including discovering 495 new species. In recognition of this partnership, the Exploring the Marine Biodiversity of Northern WA project won the 2011 Western Australian Premier's Award for Excellence in Public Sector Management.

Further information on our community engagement, social investment and environmental performance is available on pages 18 to 31 and 44 to 53 respectively in Woodside's 2011 Sustainable Development Report.

# **Tina Thomas**

Senior Vice President Corporate