

# BP in Azerbaijan Sustainability Report 2012

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Building a stronger,  
safer BP

# About our report

This report covers the calendar year ending 31 December 2012. In some instances significant events from 2013 have been included. Unless otherwise specified, the text does not distinguish between the activities of BP p.l.c. and those of its subsidiaries and affiliates.

References in this report to 'us', 'we' and 'our' relate to BP in Azerbaijan unless otherwise stated. When we cite 'BP in Azerbaijan' we refer to operations in Azerbaijan only. If we refer to 'BP AGT' we are including all our activities in Azerbaijan, Georgia and Turkey. Specific references to 'BP' and the 'BP group' mean BP p.l.c., its subsidiaries and affiliates. All dollar amounts are in US dollars.

The report is issued annually by BP Exploration (Caspian Sea) Limited in its capacities as operator and manager of the joint operating company for the Azeri-Chirag-Deepwater Gunashli field, as manager of The Baku-Tbilisi-Ceyhan Pipeline Company and by BP Exploration (Shah Deniz) Limited in its capacities as operator of the Shah Deniz field and as technical operator of The South Caucasus Pipeline Company. For this report each of these entities has provided information relevant to its project and statements applicable to its project.

## Cautionary statement

*BP in Azerbaijan Sustainability Report 2012* contains forward-looking statements relating, in particular, to recoverable volumes and resources, capital, operating and other expenditures, and future projects. Actual results may differ from such statements depending on a variety of factors including supply and demand developments, pricing and operational issues and political, legal, fiscal, commercial and social circumstances.

## Find out more online

Our website, [bp.com/caspian](http://bp.com/caspian), is the main information source about our Caspian region energy projects.



### **[bp.com/caspian](http://bp.com/caspian)**

Browse through latest news, project details, environmental and social impact assessments, legal agreements governing the projects, civil society monitoring reports and BP's responses, earlier BP in Azerbaijan Sustainability Reports and other documents.



### **[bp.com](http://bp.com)**

This site contains information about the BP group including detail of the company's policies and values, reports on its activities and operations worldwide and the group's sustainability reviews.



### **[ecbaku.com](http://ecbaku.com)**

This site provides up-to-date information about development projects and gives useful insights on how to work with BP and other international and local companies.



## Front cover

Tofig Gorchiyev, deck drilling construction lead engineer (left) and Elkhan Tahirov, drilling project engineer at West Chirag platform construction site. See page 9.

# What's inside?

*BP in Azerbaijan Sustainability Report 2012* covers our business performance, environmental record and wider role in Azerbaijan during 2012. It is our tenth sustainability report and reflects feedback we received about previous reports.

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Gordon Birrell reflects on the highlights of our activities in 2012 and touches upon our future plans.

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Our key performance data covering areas including production, safety, environment and social spend.

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BP supports revenue transparency initiatives in Azerbaijan and we continue to disclose our own disaggregated data in this publication.

### 53 Report process and feedback

We aim to provide a full and transparent account of our performance and activities and to respond to stakeholders' feedback on previous reports.

We have reviewed *BP in Azerbaijan Sustainability Report 2012* in order to provide assurance to BP management that the data, statements and assertions made regarding the sustainability performance of BP in Azerbaijan are supported by evidence or explanation. Our scope of work and conclusions can be found on [page 52](#).

**Ernst & Young**  
Introduction to the assurance process



# Introduction by the president of the BP Azerbaijan-Georgia-Turkey region



“

BP and its co-venturers are committed to helping Azerbaijan develop its hydrocarbon resources safely and reliably for the benefit of the country.

”

**Gordon Birrell**

President  
BP Azerbaijan-Georgia-Turkey Region

It gives me great pleasure to provide the foreword to the tenth issue of the BP in Azerbaijan Sustainability Report – part of our long-standing commitment to communicate openly about what we do and how we do it.

BP globally has made many changes, turning lessons learned into action. By the end of 2012, we sold assets worth \$38 billion to reduce complexity and risk. By concentrating investment in our areas of distinctive strength, BP is now reorganized and refocused.

Azerbaijan is one of those areas where BP has distinctive strength. We operate the giant Azeri-Chirag-Deepwater Gunashli (ACG) oil field and the huge Shah Deniz gas field in the Caspian Sea as well as the world-scale Sangachal terminal and major hydrocarbon export pipelines. BP and its co-venturers are committed to helping Azerbaijan develop its hydrocarbon resources safely and reliably for the benefit of the country.

Safe production enhancement is an important aspect of this commitment. During 2012, BP with its partners agreed plans to deliver our production promise. The first quarter results in 2013 suggest that we are making good progress.

## Relentless focus on safety

Safety remains at the heart of everything we do. Before joining BP AGT in November 2012, I had the privilege of contributing to the establishment of a new safety and operational risk (S&OR) function across BP. S&OR sets our company-wide safety requirements and works alongside our businesses to ensure that they conform to our global operating management system (OMS).

In Azerbaijan, we achieved improvements in some key safety indicators in 2012 while there was more than an 8% increase in hours worked. We also operated under OMS and embedded its performance improvement cycle into our work and planning processes.

## Working towards the energy future

We made significant progress on various new developments. The Chirag oil project progressed safely with no days away from work cases. This \$6 billion development will boost oil production from the ACG field through the new West Chirag platform. Construction of its jacket was completed in 2012 and we are on track to tow the topside to the field later this year.

We completed a 3D seismic survey on the prospective Shafag-Asiman structure and began the massive task of processing the data in-country.

In the meantime, work on the Shah Deniz Stage 2 project - one of the largest new gas ventures in the world - made good progress. We expect to select export routes to Europe in 2013.

## Striving to be a responsible corporate citizen and a good employer

Last year marked the 20<sup>th</sup> anniversary of BP's arrival in Azerbaijan. Running safe and reliable operations over a sustained period anywhere in the world ultimately is down to the skills and commitment of our employees. In Azerbaijan, nearly 4,000 individuals deliver the highest standards of performance driven by their passion for safety, excellence, mutual respect and acting as one team.

Our pledge to create a strong national workforce remains in place. In 2012, the number of Azerbaijani employees in senior positions rose by 13% to reach 169. Last year we also launched an innovative training programme at the new Petro-Technical Learning Centre to train young Azerbaijani graduates for successful careers within BP.

Together with our co-ventures, we also supported the development of the business sector in Azerbaijan through our enterprise development and training programme and by increasing local content in our projects. In line with this approach, our in-country operations-only expenditure with local suppliers rose by 29% from 2011 to around \$1.2 billion.

Another noteworthy initiative was our support of Azerbaijan's teams and seven athletes at the London 2012 Olympic and Paralympic Games as the official partner of the National Olympic Committee and the National Paralympics Committee.

These are only a few highlights from a busy year. Along with many achievements, we faced some operational challenges, which are described in detail in this publication. Our aim in this report is to provide a full and transparent account of our performance, reflecting feedback we received about our previous reports. So we welcome your comments.

A handwritten signature in black ink that reads "G B Birrell". The signature is written in a cursive, slightly slanted style.

**Gordon Birrell**

President  
BP Azerbaijan-Georgia-Turkey Region  
23 May 2013

# This is BP in Azerbaijan

We aspire to be a valued, trusted and long-term partner in the development of Azerbaijan's hydrocarbon resources.

## Our goals

Together with our co-venturers we developed plans and agreed production themes to manage delivery from ACG efficiently for many years to come.

The construction of the jacket for the West Chirag platform was completed and we are on track to tow the topside to the field in the third quarter of 2013.

## In this section

2.1  
billion

barrels of oil were produced by Azeri-Chirag-Deepwater Gunashli from 1997 to end 2012.



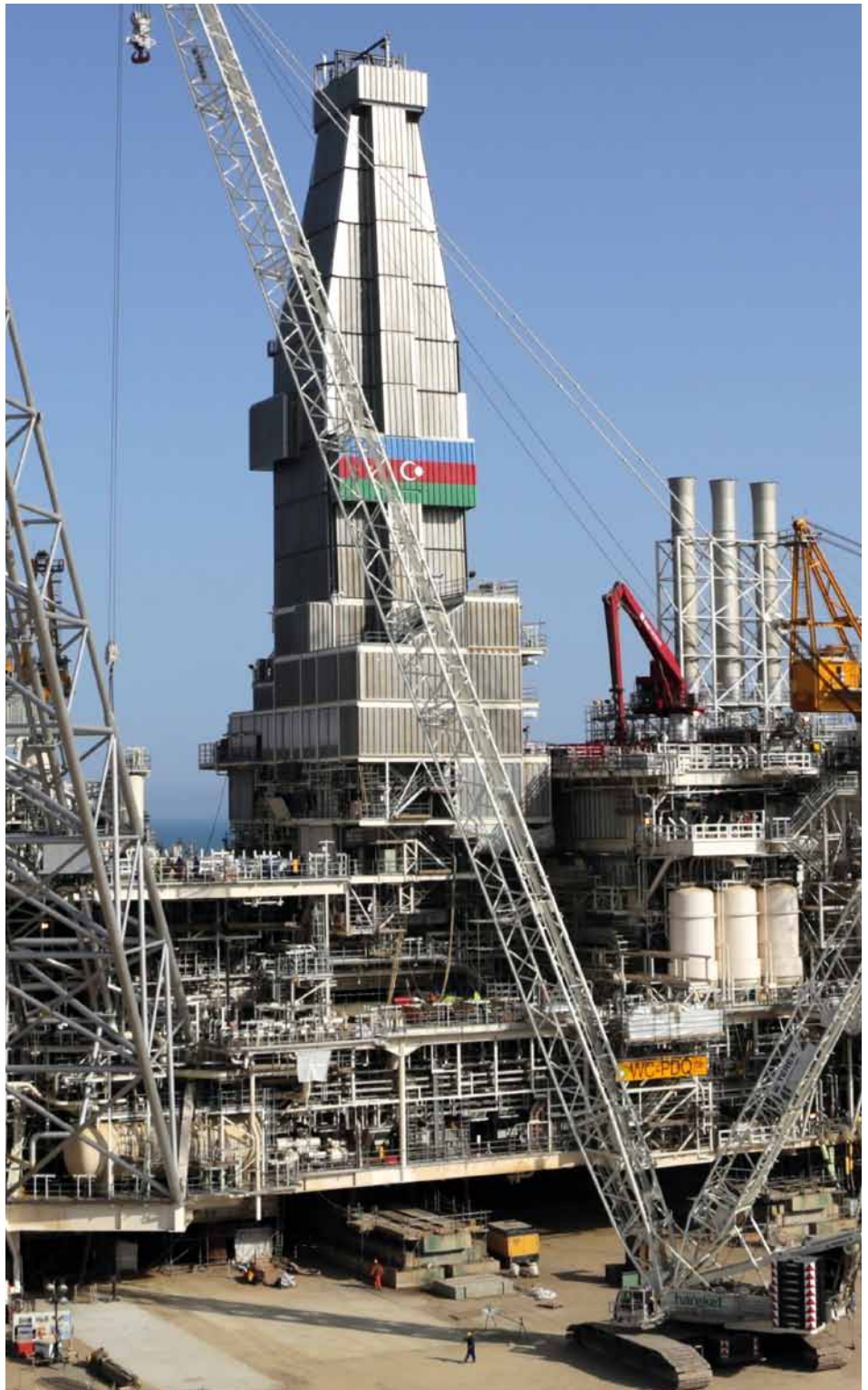
7.73  
billion

cubic metres (about 273 billion cubic feet) of gas were produced from Shah Deniz in 2012.



### West Chirag platform construction

It is the first time a world-scale fabrication project has been undertaken totally in Azerbaijan.



# History

We opened our first office in Baku in 1992, and two years later BP signed the groundbreaking 'Contract of the Century' with the government of Azerbaijan.

## September 1994

Azeri-Chirag-Deepwater Gunashli (ACG) production sharing agreement (PSA) signed by BP, its co-venturers and the government of Azerbaijan

## February 1995

Azerbaijan International Operating Company (AIOC) formed

## June 1996

Shah Deniz PSA signed

## November 1997

First oil produced from the Chirag field

## December 1998

Western Route Export Pipeline operations started

## August 2001

ACG Phase 1 sanctioned

## September 2002

ACG Phase 2 sanctioned

## February 2003

Shah Deniz Stage 1 sanctioned

## April 2003

Construction of the Baku-Tbilisi-Ceyhan (BTC) pipeline began

## September 2004

ACG Phase 3 sanctioned

## October 2004

Construction of South Caucasus Gas Pipeline (SCP) commenced

## February 2005

Production at Central Azeri started

## May 2005

Inauguration of Azerbaijani section of the BTC pipeline

## December 2005

Production at West Azeri started

## May 2006

First gas flowed into the SCP

## June 2006

First tanker filled with Caspian oil at Ceyhan marine terminal

## July 2006

Inauguration of Turkish section of the BTC pipeline, Ceyhan terminal and the BTC pipeline export system

## November 2006

First profit oil produced at East Azeri

## December 2006

First gas produced from Shah Deniz Stage 1

## March 2007

BTC 1 million barrels per day capacity achieved

## July 2007

First gas delivered from Shah Deniz to Turkey

## November 2007

Large gas-condensate discovery made at Shah Deniz following drilling to a Caspian-record depth of more than 7,300 metres

## April 2008

First oil produced at Deepwater Gunashli

## March 2009

BTC capacity expanded to 1.2 million barrels per day

## March 2010

\$6 billion investment sanctioned for the Chirag oil project

## September 2010

One billionth barrel of crude oil carried successfully through BTC pipeline

## October 2010

PSA signed with SOCAR to explore and develop the Shafag-Asiman structure

## December 2010

Five-year extension from 2031 to 2036 to the Shah Deniz PSA signed

## May 2011

New PSA for the Shafag-Asiman structure ratified by the Azerbaijani Parliament

## October 2011

Shah Deniz gas sales and transit agreements signed in Turkey

## November 2011

3D seismic survey of the Shafag-Asiman structure started

# Achievements and challenges

In this section we summarize the main achievements and challenges for BP in Azerbaijan in 2012.

## 2012

### January 2012

Shafag-Asiman completed the first 3D seismic survey

### May 2012

ACG celebrated 2 billionth barrel of oil produced since first oil

### October 2012

BTC celebrated the loading of 2,000<sup>th</sup> tanker at Ceyhan

### October 2012

Shah Deniz achieved 966 million cubic feet of gas per day capacity

### October 2012

West Chirag platform jacket construction at Baku Deepwater Jacket Factory completed

### November 2012

Chirag celebrated 15<sup>th</sup> anniversary of successful production since first oil



Shah Deniz platform.

## Achievements

### Operations and business development

On 4 January 2012, the planned 3D seismic acquisition on the Shafag-Asiman perspective structure was completed.

On 18 May 2012, ACG achieved the 2 billion barrels milestone in oil production since the start-up in 1997. In October, West Chirag platform jacket construction completed on schedule.

By the end of 2012, Shah Deniz production reached plateau with production facilities running at maximum capacity of about 27.3 million standard cubic metres (966 million standard cubic feet) of gas per day and approximately 55,000 barrels of condensate per day when markets are available. In May, for the first time, Shah Deniz started production from five wells.

Eleven of BP's world top 20 production wells of gross hydrocarbons in 2012 were in Azerbaijan. These included all five Shah Deniz wells.

On 18 December, a series of agreements was signed between the Shah Deniz consortium and SOCAR providing foundations for a Final Investment Decision on Shah Deniz Stage 2 planned for 2013.

### Safety

We achieved improvements in our recordable injury frequency rates while there was more than an 8% increase in hours worked.

### Employees

The number of national employees in senior level positions rose by 13% during the year and reached 168 at the end of 2012 compared with 40 at the end of 2006.

## Enterprise development

BP and its co-venturers' sustainable in-country operations-only expenditure with local suppliers rose to about \$1.2 billion – a 29% increase from 2011. The total included an 89% rise to \$481 million in direct expenditure with local small and medium enterprises, a key target audience of our development projects.

## Challenges

### Operations

Following the constant increase in oil production from ACG since 1997, we experienced a decline in 2011-12. This was caused by a combination of various factors including curtailment of existing wells, challenges with the delivery of new wells, as well as complex reservoir geology.

### Safety

Our total vehicle accident rate increased by 18% compared with 2011, although the number of severe accidents was three times lower than in 2011. Accidents were at low speed and caused minimal damage. Driving safety remained a primary focus throughout the year.

### Environment

There were 44 sewage treatment plant outages in 2012 versus 17 in 2011.

An unintentional release happened in September 2012 when a failure occurred at the liner running tool during well cementing activities at the Central Azeri platform.

# BP in Azerbaijan at a glance



East Azeri platform.

## Our structure, organization, assets and history.

### Legal structure

A number of BP legal entities have registered representative offices in Azerbaijan reflecting the evolution of BP's presence in the country and the region since BP opened its first office in Baku in 1992. The principal legal entity is BP Exploration (Caspian Sea) Limited.

### BP in Azerbaijan, Georgia and Turkey

In Azerbaijan, BP operates under several production sharing agreements and host government agreements (HGAs) signed with the government of Azerbaijan. In Georgia and Turkey, it operates under HGAs that cover export pipelines and terminals.

### Business structure

At the end of 2012, 11 vice presidents, the chief financial officer, the chief procurement officer, and the assistant general counsel reported to the president of BP Azerbaijan-Georgia-Turkey region.

### Registered address

The registered address of the representative office of BP Exploration (Caspian Sea) Limited in Azerbaijan is 96 Nizami Street, Baku, AZ1010. Telephone: +994 (0)12 497 9000. Fax: +994 (0)12 497 9602.

### Employees

At the end of 2012, the number of people permanently employed by BP in Azerbaijan was 3,072<sup>a</sup> of whom 2,555 were Azerbaijani citizens.

### Offshore production assets

Azeri-Chirag-Deepwater Gunashli (ACG)<sup>b</sup> is the largest oilfield in the Azerbaijan sector of the Caspian Sea. Shah Deniz (SD) is a large offshore gas and condensate field.

### Operational offshore facilities

Chirag platform, Central Azeri platform, West Azeri platform, East Azeri platform, Shah Deniz platform and the Deepwater Gunashli platform.

### Transportation and storage (at year-end 2012)

**Transportation:** Sangachal terminal – an oil and gas processing terminal south of Baku. Baku-Tbilisi-Ceyhan pipeline (BTC) – a 1,768km oil pipeline (443km in Azerbaijan) linking Sangachal terminal to Ceyhan marine terminal in Turkey. South Caucasus Pipeline (SCP) – a 691km gas pipeline (443km in Azerbaijan) between Sangachal terminal and the Georgia-Turkey border. Western Route Export Pipeline (WREP) – a 829km pipeline (456km in Azerbaijan) linking Sangachal terminal to Supsa on Georgia's Black Sea coast.

**Capacity:** BTC – 1.2 million barrels per day; SCP – 19.8 million standard cubic metres (mmscm) per day; WREP – 106 thousand barrels per day. Sangachal terminal – 1.2 million barrels (about 164,000 tonnes) of oil per day and 41.5 mmscm of gas per day (27.4 from SD and 14.1 from ACG). Crude oil storage capacity of 3.2 million barrels (450,000 tonnes).

### Exploration activity

Shafag-Asiman exploration area.

### Capital expenditure

About \$38 billion on the ACG, BTC, SD Stage 1 and SCP projects since the establishment of Azerbaijan International Operating Company in 1995.

### Liquids production

ACG 1997-2012: more than 2.1 billion barrels in total including more than 243 million barrels in 2012. SD condensate: about 80 million barrels in total including more than 16 million barrels in 2012.

### Gas production

SD 2006-12: about 38 billion standard cubic metres (bscm) in total including more than 7.7 bscm in 2012.

<sup>a</sup>This also includes 65 Azerbaijani national professional employees on assignments.

<sup>b</sup>Shallow-water Gunashli is developed by the State Oil Company of the Republic of Azerbaijan.



# Our operations

## Bernard Looney Chief Operating Officer, Production, BP group

Visiting BP's operations around the world helps us to understand the challenges that face our people on the front line. Together with two other Upstream executive vice presidents I visited Azerbaijan in October 2012 to discuss production issues at the giant Azeri-Chirag-Deepwater Gunashli field with our SOCAR colleagues. We agreed a plan to meet the challenges we face. We remain committed to continuing to work with our partners and to retain our relentless focus on safety, intensify our performance and bring the best of BP's experience, technology and expertise to assist our teams in Azerbaijan.



We operate large offshore hydrocarbon assets in Azerbaijan. Onshore, we manage one of the world's largest integrated oil and gas processing terminals and pipeline links to regional and world markets.



Central Azeri platform.

Production continued at the Azeri-Chirag-Deepwater Gunashli (ACG) oil and Shah Deniz (SD) gas fields throughout 2012.

### Azeri-Chirag-Deepwater Gunashli

ACG is operated by BP on behalf of the Azerbaijan International Operating Company. It is the largest oilfield in the Azerbaijan sector of the Caspian basin. The field is located about 100km east of Baku and is geologically challenging with a complicated seabed topography including slumps, mud volcanoes and scarp edges.

Production at ACG started in 1997 from the Chirag section. It now also includes the Central, West and East Azeri and Deepwater Gunashli sections. On 18 May 2012, ACG achieved 2 billion barrels in oil production since the start-up in 1997.

In 2012, we produced an average of 664,400 barrels per day (243.2 million barrels or 32.9 million tonnes per year) from the ACG complex. In addition, around 9.2 million standard cubic metres (or 324 million standard cubic feet) of associated gas per day was delivered to State Oil Company of the Republic of Azerbaijan (SOCAR).

Overall, we delivered about 3.4 billion standard cubic metres (about 119 billion standard cubic feet) of associated gas to SOCAR in 2012. This exceeded by about 13% our forecast of 3 billion standard cubic metres (or 106 billion standard cubic feet) of associated gas delivery for the full year.

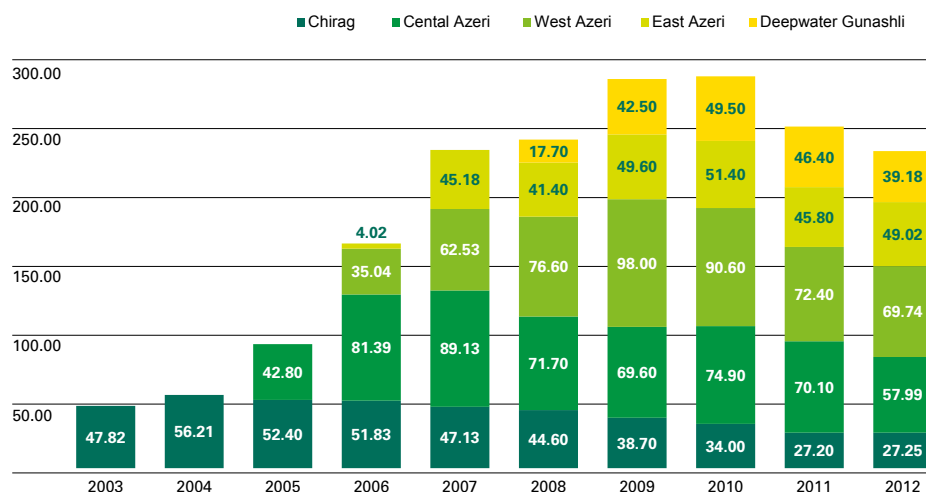
Our operating expenditure for the year at ACG totalled \$725 million. Capital spending was \$2.495 billion. In 2013, we expect to spend about \$758 million in operating expenditure and \$2.514 billion in capital expenditure on ACG activities.

### Production management

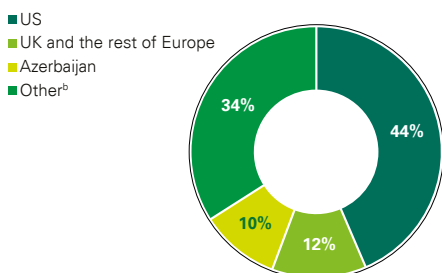
Following the constant rise in oil output from ACG since 1997, we experienced a production decline in 2011-12. This was caused by a combination of factors including curtailment of existing wells, delivery of new wells, limited availability of drilling rigs in the Caspian and the complex reservoir geology at ACG.

In November 2012, BP, SOCAR and the other joint venture partners began collaborating closely in managing ACG production-related challenges and improving production delivery. Together we developed plans and agreed production themes to manage delivery from ACG efficiently for many years to come.

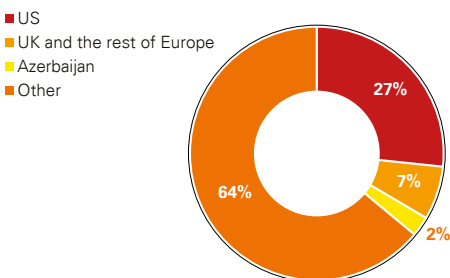
### Oil production from Azeri-Chirag-Deepwater Gunashli, 2003-2012 (million barrels)



### Net share of liquids production by BP subsidiaries around the world<sup>a</sup>



### Net share of natural gas production by BP subsidiaries around the world<sup>c</sup>



<sup>a</sup>896 thousand barrels per day, includes crude oil, natural gas liquid and condensate.

<sup>b</sup>Other includes Canada, South America, Africa, Asia (excluding Azerbaijan) and Australia.

<sup>c</sup>6,193 million cubic feet per day (excluding equity accounted entities).

### Azeri-Chirag-Deepwater Gunashli oil production

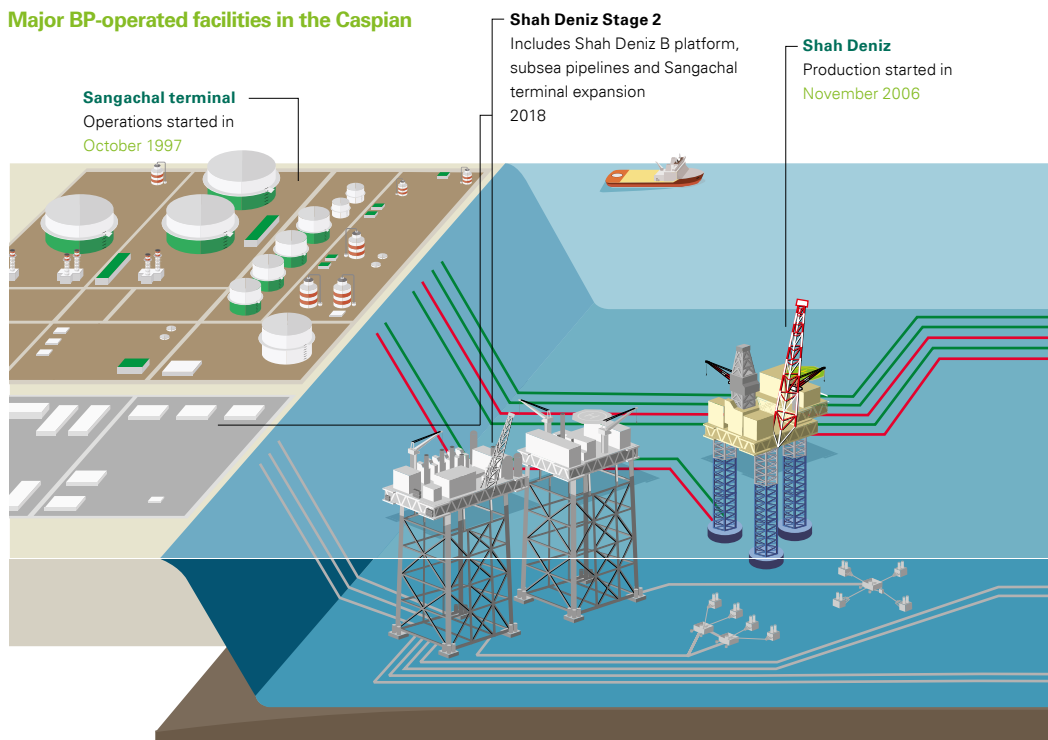
(mmbbl – million barrels; mmte – million tonnes)

Platform	Start of production	Unit of measurement	From the start of production to the end of 2012	2011	2012
Chirag	November 1997	mmbbl	600.8	27.2	<b>27.2</b>
		mmte	81.2	3.7	<b>3.7</b>
Central Azeri	February 2005	mmbbl	560.5	70.1	<b>58.0</b>
		mmte	75.7	9.5	<b>7.8</b>
West Azeri	December 2005	mmbbl	504.9	72.4	<b>69.7</b>
		mmte	68.2	9.8	<b>9.4</b>
East Azeri	November 2006	mmbbl	286.6	45.8	<b>49.0</b>
		mmte	38.7	6.2	<b>6.6</b>
Deepwater Gunashli	April 2008	mmbbl	195.3	46.4	<b>39.2</b>
		mmte	26.4	6.3	<b>5.3</b>
<b>Total</b>		mmbbl	2,148.2	261.9	<b>243.2</b>
		mmte	290.3	35.4	<b>32.9</b>

The seven themes that we identified cover new wells delivery, reservoir pressure decline management, well management and system optimization, sand production management, produced water and sand handling, turnaround strategy and ongoing major investment. These are all areas that will be vital to improving production

in 2013 and beyond and will be critical to the effectiveness of the joint work that we are undertaking with State Oil Company of the Republic of Azerbaijan (SOCAR) and other partners.

### Major BP-operated facilities in the Caspian





West Chirag platform jacket being loaded onto the transportation barge.

### Chirag oil project

In March 2010, a \$6 billion development plan for the Chirag oil project (COP) was sanctioned. The venture includes construction of the West Chirag platform, which is designed to fill a gap in the field infrastructure between the existing Deepwater Gunashli and Chirag platforms. COP is expected to increase oil production and recovery from the ACG field by a total of 360 million barrels. It is the first time a world-scale fabrication project has been undertaken totally in Azerbaijan.

In 2012, COP construction activities continued safely with no day away from work case, on schedule and according to plan. The building of the jacket for the West Chirag platform was completed in October. More than 2,000 people, including sub-contractors and specialist vendors, were involved in the construction. Azerbaijani nationals made up 96% of the workforce. The jacket itself was built by a local company BOS Shelf (now fully owned by SOCAR) using local infrastructure at Baku Deepwater Jackets Factory (BDJF) facilities.

The heaviest jacket ever constructed in the Caspian region, it was loaded safely onto a transportation barge at the quayside of the BDJF on 20 October 2012. On completion of subsea pipe-laying activities in the COP area, the offshore installation of the jacket was completed safely on 3 May 2013.

Fabrication of the topside facilities at the AMEC-Tekfen-Azfen yard was about 97% completed by the end of 2012. Sail-away was set for the third quarter of 2013. The first oil from COP is expected in the fourth quarter of 2013.

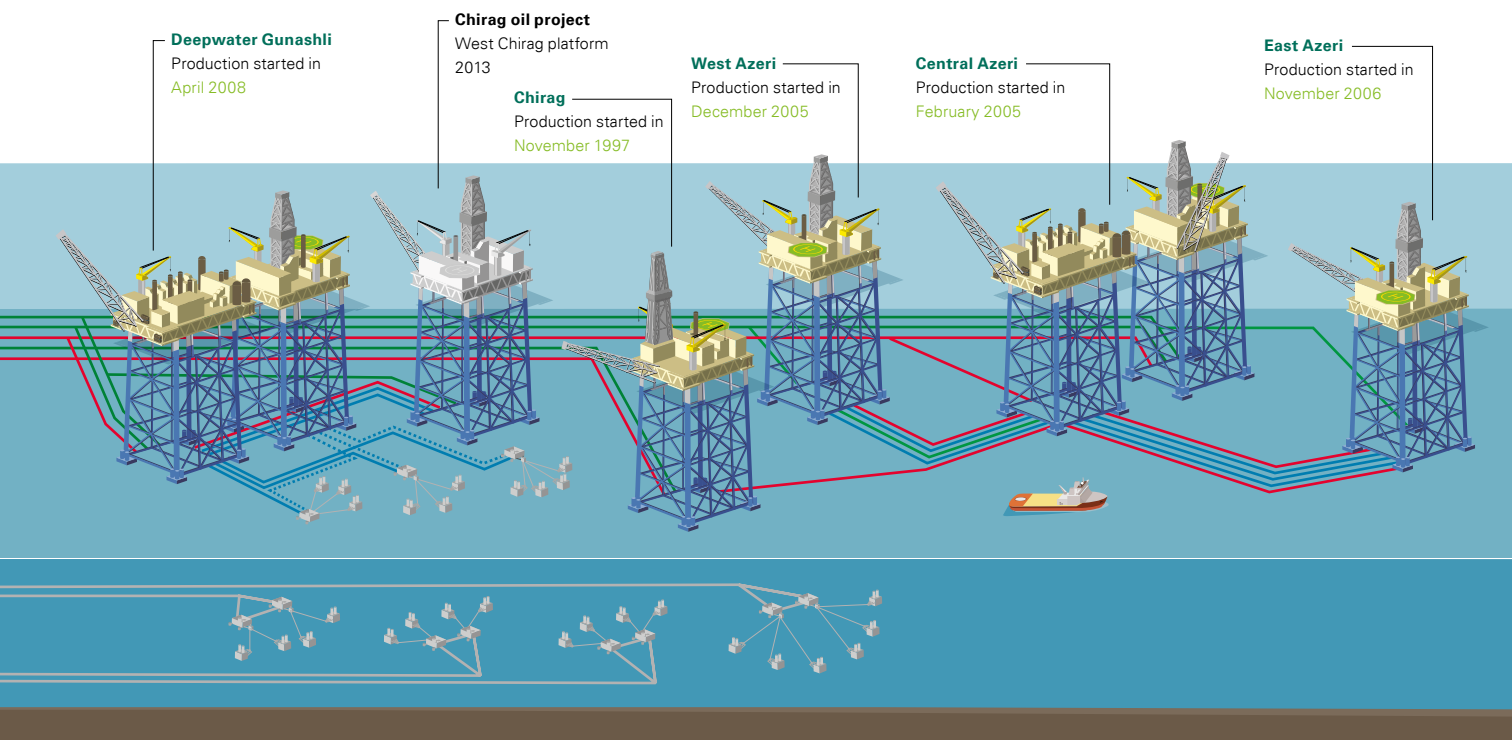
At the peak construction period contractors on the COP employed more than 8,000 workers. Nine out of ten were Azerbaijani nationals.

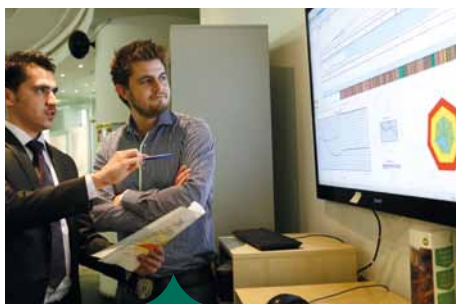
### Shah Deniz

The Shah Deniz (SD) gas field was discovered in 1999. It has a reservoir thickness of more than 1,000 metres and is 22km long. The field is 70km offshore and lies beneath water depths ranging from 50-600 metres. SD is geologically challenging and highly pressured with multiple reservoir 'horizons'. Production began in 2006.

In 2012, SD produced about 7.73 billion cubic metres (about 273 billion cubic feet) of gas and 16.1 million barrels (2 million tonnes) of condensate. This is equivalent to about 21.1 million standard cubic metres of gas per day (745.4 million standard cubic feet per day) and 44,100 barrels of condensate per day.

In May 2012, for the first time, SD started producing from five wells.





## BP Well Advisor – an advanced new technology for the Caspian

High levels of non-productive time on drilling rigs, mainly caused by stuck pipe during casing running operations, has always been a challenge for the oil industry. In 2012, we introduced a new tool called BP Well Advisor to deal with the problem, which in turn, we believe, enhances our operational safety and well construction efficiency.

Developed by BP research and development specialists in co-operation with Kongsberg Oil and Gas Technologies Company, BP Well Advisor's core rationale is greater safety and greater knowledge.

BP Well Advisor was introduced in April 2012. The process was completed at the beginning of November when its casing running console became fully operational on the East Azeri, West Azeri, Central Azeri and Deepwater Gunashli platforms.

"Now I can check the changes on the casing running process in real time," says Eduardo Lucuara, senior drilling engineer for the Central Azeri platform. With consoles that display real-time process information on activities such as drilling, casing running, cementing, formation stability BP Well Advisor also helps to integrate operational data with predictive processes. The result, says Lucuara, is "better informed operational decisions during all phases of well construction." Potentially, BP Well Advisor will increase the number and frequency of new wells delivered.

One way BP Well Advisor is designed to achieve this is by managing a huge volume of data and integrating it with recommended practices to assure that accurate and timely information is used effectively. By doing this well integrity is improved by monitoring critical operations and equipment while embedding safety critical practices and guidelines within the consoles.

## Shah Deniz gas and condensate production

(bscm – billion standard cubic metres, bscf – billion standard cubic feet, mmbbl – million barrels of oil equivalent, mmbbl - million barrels, mmte - million tonnes)

	Start of production	Unit of measurement	From the start of production to the end of 2012	2011	2012
SD gas	November 2006	bscm	37.6	6.7	<b>7.7</b>
		bscf	1,327.8	235.4	<b>272.8</b>
		mmbbl	229.1	40.6	<b>47.0</b>
SD condensate	November 2006	mmbbl	79.8	14.0	<b>16.1</b>
		mmte	10.1	1.8	<b>2.0</b>

From the time SD came on stream in late 2006 to the end of 2012, 37.6 billion standard cubic metres (1,327 billion standard cubic feet) of gas and 80 million barrels (10.1 million tonnes) of condensate were exported to local and international markets.

SD Stage 1 production is currently on a plateau. Production facilities are running at maximum capacity of about 27.3 million standard cubic metres (966 million standard cubic feet) of gas per day while approximately 55,000 barrels of condensate per day is produced when markets are available.

For 2012, operational spending at SD totalled \$269.3 million. Capital expenditure reached \$1.1 billion. In 2013, we have authorised some \$222 million in operational expenditure and about \$2.67 billion in capital spending on SD activities.

### Shah Deniz Stage 2

Shah Deniz Full Field Development, or SD Stage 2 (SD2), is a major project that is designed to transport gas from Azerbaijan to Europe and Turkey and help to increase gas supply and energy security in European markets by opening a new southern gas corridor. The project is expected to add a further 16 bcma of gas production to the approximately 9 bcma from SD Stage 1.

One of the largest gas development projects in the world, SD2 is envisaged to include two new bridge-linked production platforms, 26 subsea wells drilled by two semi-submersible rigs, 500km of subsea pipelines in up to 550m of water depth, a 16 bcma upgrade for the South Caucasus Pipeline (SCP), and the expansion of Sangachal terminal. New pipelines will be built, or old ones expanded, to transport SD gas through Turkey and Europe.

The project made good progress in 2012. In April, it entered the front end engineering and design stage. In June, an Inter-Governmental Agreement between the governments of Azerbaijan and Turkey and a Host Government Agreement between TANAP and government of Turkey were signed to build a new, standalone pipeline called

Trans-Anatolian Pipeline (TANAP) across Turkey. Subsequently at the end of 2012, a series of agreements were signed between the SD consortium and State Oil Company of the Republic of Azerbaijan (SOCAR) ahead of a final investment decision in 2013.

During the year, the SD consortium supported the aims of the Azerbaijani and Turkish governments in developing the TANAP concept in conjunction with the development of SD2. In addition, SOCAR confirmed its invitation to BP to participate in TANAP with a 12% interest. It is hoped to finalize terms in 2013. In the meantime, we continue to work closely with all TANAP project participants.

In parallel, options continued to be evaluated in 2012 in respect of the Trans-Adriatic-Pipeline (TAP) and Nabucco West as the final section of the possible Southern Corridor to take gas from the western Turkish border to the expanding markets of Europe.

Some of the Shah Deniz partners, including BP, plan to be participants in each section of any pipeline system that eventually transports SD gas to Europe. This would include the South Caucasus Pipeline, TANAP and either TAP or Nabucco West. Equity option and funding agreements have been concluded with TAP and Nabucco West that provide both projects with short-term funding and ensure rights to exercise an equity option in whichever of the two projects is finally selected as the European off-take route.

As 2013 began, our focus was on the final European route selection process. This will involve a full evaluation of TAP and Nabucco West projects with a final route selection decision expected by the SD in mid-2013 ahead of the SD final investment decision likely later in the year.

As a result of the progress to date, it is planned to spend about \$2.3 billion in 2013 to ensure that SD2 is ready for first production in 2018.



Night view at Shah Deniz platform.

### Sangachal terminal

Sangachal terminal is an onshore hub where offshore oil and gas is processed prior to export. It is designed to treat production from all currently-operated BP assets in the Caspian basin and has room for expansion. The terminal includes oil and gas processing facilities, the first pump station for the Baku-Tbilisi-Ceyhan (BTC) oil pipeline, the South Caucasus Gas Pipeline (SCP) compressor and other facilities.

In 2012, the terminal exported about 282.9 million barrels of oil. This included 246.4 million barrels through BTC, about 29.1 million barrels through the Western Route Export Pipeline (WREP), about 6 million barrels by rail and 1.4 million barrels via a condensate export line.

On average around 21.1 million standard cubic metres (or 745.4 million standard cubic feet) of Shah Deniz gas was exported from the terminal daily in 2012. The gas is moved through the SCP and via a SOCAR gas pipeline connecting the terminal's gas processing facilities and Azerigas's national grid system.

During the year, expansion activities at Sangachal terminal included road remediation and construction, completion of temporary facilities

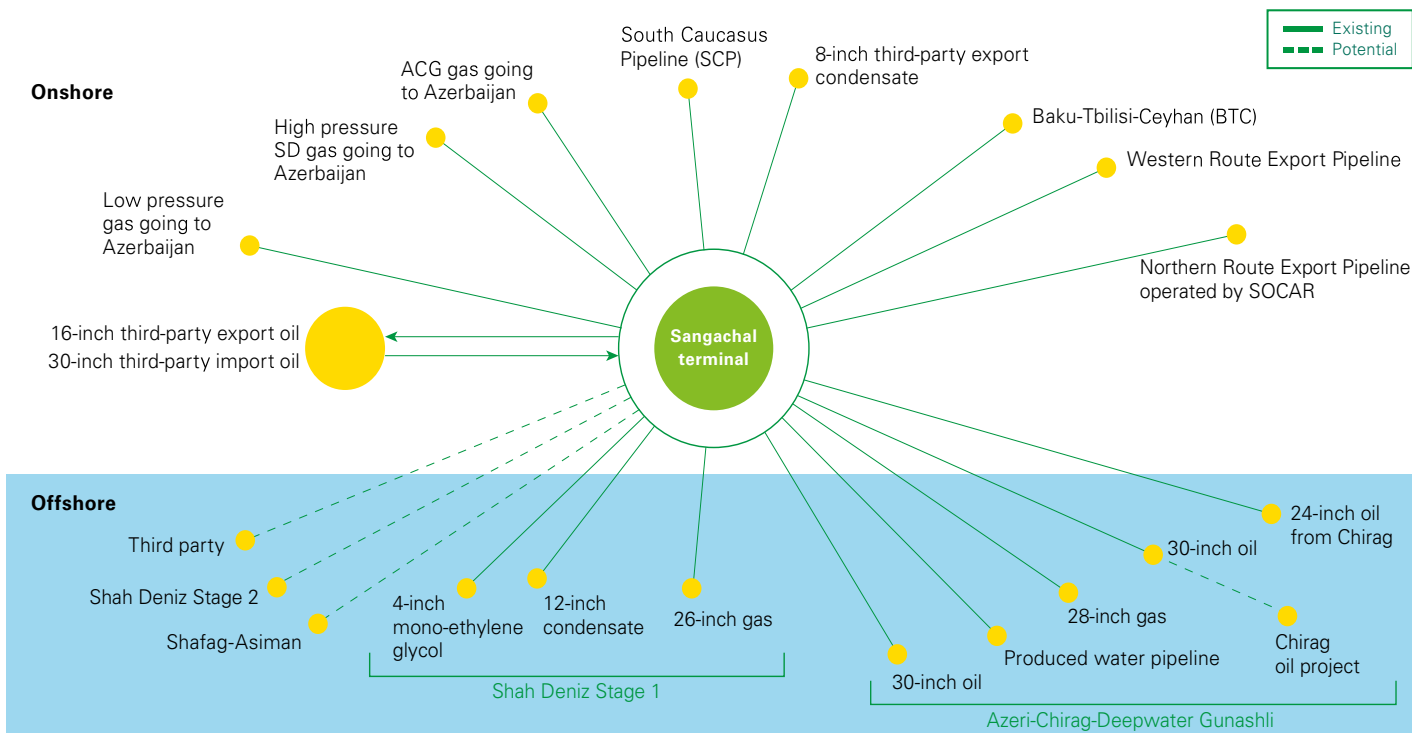
### Sangachal terminal

- Area: 542 hectares
- Location: 55km south of Baku in Garadagh district
- Processing capacity: 1.2 million barrels of oil per day and 41.5 mmscm of gas per day (including 27.4 mmscm of Shah Deniz and 14.1 mmscm of ACG gas)
- Maximum storage capacity: about 4 million barrels
- Working storage capacity: about 3.2 million barrels

and flood protection berm, site levelling, pipeline survey and shared office construction.

Various upgrades and improvements took place at the terminal during 2012. An SD waste heat recovery unit was commissioned, the second phase of the SD flare gas project commenced, a turnaround (see below) was completed safely and a wax remediation pipeline programme implemented. Construction of a new laboratory was moved into our work schedule for 2014.

### Sangachal terminal: a strategic hub for all BP-operated assets in the Caspian

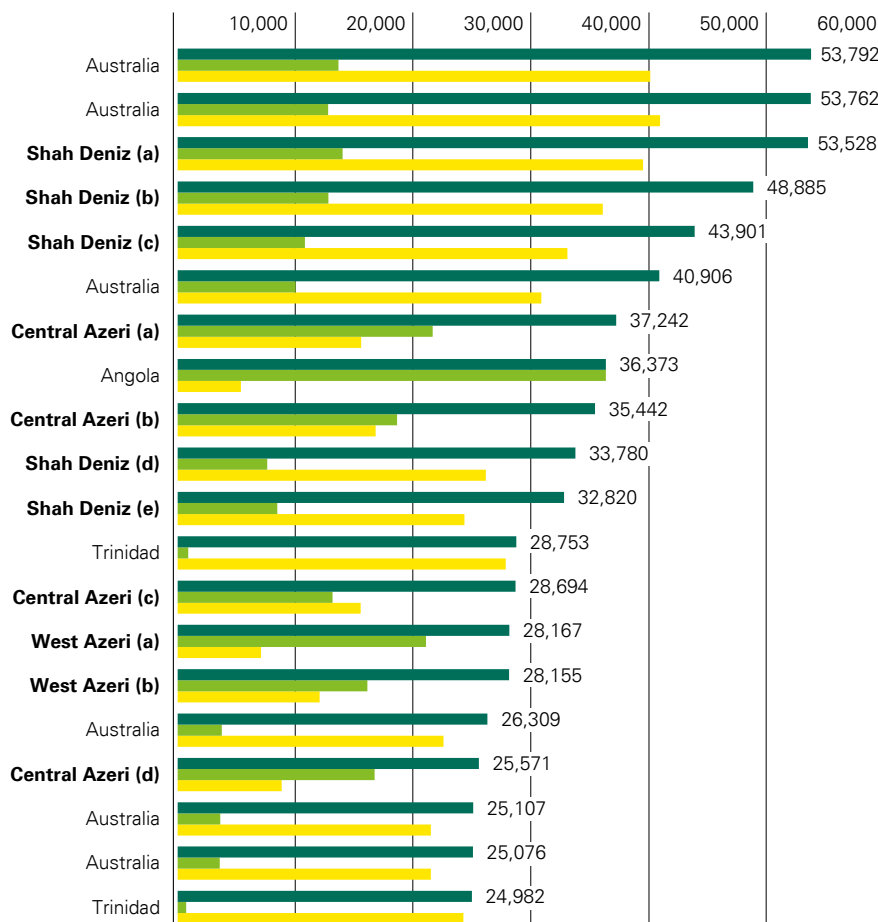




View of Sangachal terminal from a helicopter.

### BP's top 20 production wells

■ Gross oil rate (barrels of oil equivalent per day)  
 ■ Oil rate (barrels per day) ■ Gas rate (barrels of oil equivalent per day)



### Outlook for 2013

Our main priority in 2013 will be to maintain safe, reliable and efficient day-to-day operations at the terminal. We also expect to complete the Shah Deniz hot oil filtration skid progress, improve the reliability of the dewpoint control units and finish the ACG Phase 2 pipeline de-waxing programme from Central Azeri and East Azeri.

Other projects planned for the year include support for the SCP in-line inspection programme, an Early oil project tank inspection programme, upgrades to infrastructure and various civil maintenance projects. We will also be initiating a hazard and operability study plan.

### Turnaround activity

Following our extensive turnaround programme in 2011, in 2012 we completed turnarounds – periods when operating assets are taken out of service to complete essential maintenance, inspection or project work – at Sangachal terminal (19 days), and on the offshore platforms – at Shah Deniz (19 days) and Deepwater Gunashli (15 days).

The September Sangachal turnaround was the largest in the terminal's history and was completed safely and successfully. It included tie-ins of numerous large diameter valves, inspection and maintenance of the existing ground flare system and replacement of the fluid in the complex hot oil circulation system.

The turnaround at the Shah Deniz platform took place in tandem with that at the terminal. Essential work on the platform included pressure vessel internal and structural inspections, the replacement of various passing valves and six tie-in welds required for installation of a fourth lifeboat.

In October, the Deepwater Gunashli turnaround involved installation of critical tie-ins for the Chirag oil project, valve replacements and internal inspections of pressure vessels. Both high pressure and low pressure flare tips were replaced.



Technicians conducting routine pig launch operation at a pump station.

### Baku-Tbilisi-Ceyhan pipeline

The 1,768km Baku-Tbilisi-Ceyhan (BTC) pipeline transports oil from the ACG field and condensate from SD across Azerbaijan, Georgia and Turkey. It links Sangachal terminal on the shores of the Caspian Sea to Ceyhan marine terminal on the Turkish Mediterranean coast. Some crude oil from Turkmenistan is also moved along the pipeline.

Between 4 June 2006 to the end of 2012, 2,061 tankers were loaded at Ceyhan. In total they carried almost 1.588 billion barrels (213 million tonnes) of crude oil to world markets. During 2012, BTC exported 245.8 million barrels (32.8 million tonnes) of crude oil on 320 tankers loaded at Ceyhan.

BTC capital spending for the year was \$64 million. Planned capital expenditure in 2013 is about \$97 million.

### At the end of 2012 BTC had

- Capacity: 1.2 million barrels per day
- Average throughput: approximately 673.3 thousand barrels per day

### At the end of 2012 SCP had

- Capacity: 19.8 million cubic metres per day
- Average throughput: equivalent to 11.1 million cubic metres per day

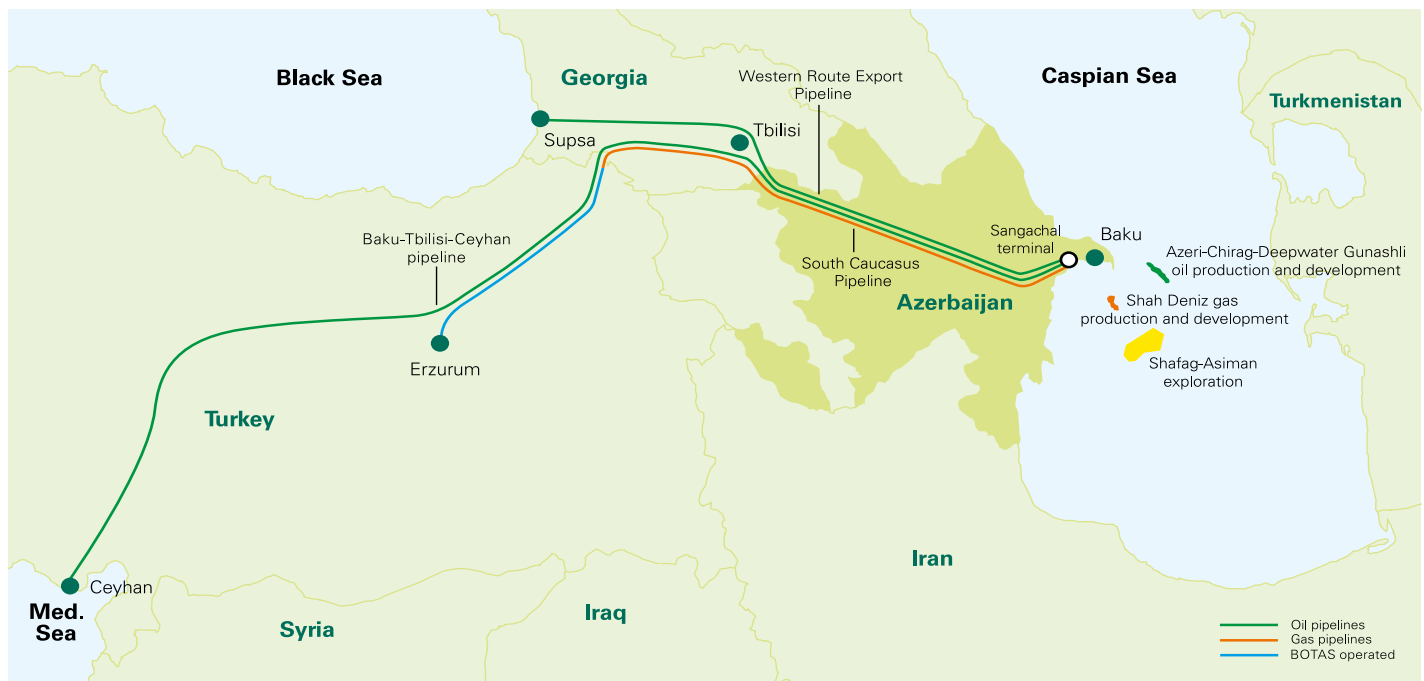
### South Caucasus Pipeline

South Caucasus Pipeline (SCP), a 691km gas pipeline has been operational since late-2006. It delivers processed gas from Sangachal terminal to the Georgia-Turkey border. As technical operator of the link, BP is responsible for construction and operation of its facilities. Statoil is responsible for SCP administration and business development.

During 2012, the SCP's daily average throughput was more than 11.1 million cubic metres (more than 393 million cubic feet) of gas or about 68,000 barrels of oil equivalent per day.

Capital expenditure for the year totalled \$11 million. The plan for 2013 is to spend more than \$13 million in SCP capital expenditures.

### BP's interests in Azerbaijan-Georgia-Turkey region\*

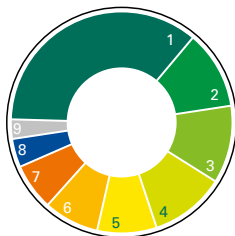


\* In Azerbaijan the BTC/SCP pipelines pass through 13 districts: Garadagh, Absheron, Hajigabul, Agsu, Kurdamir, Ujar, Agdash, Yevlakh, Goranboy, Samukh, Shamkir, Tovuz, Agstafa.

### Co-venturers' interests in BP-operated projects in Azerbaijan<sup>a</sup> (%)

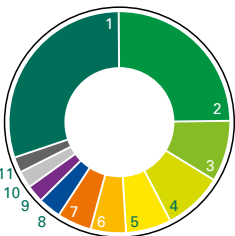
#### Azeri-Chirag-Deepwater Gunashli (ACG)

1. BP	35.7828
2. SOCAR	11.6461
3. Chevron	11.2729
4. INPEX	10.9644
5. Statoil	8.5633
6. ExxonMobil	8.0006
7. TPAO	6.7500
8. ITOCHU	4.2986
9. ONGC <sup>b</sup>	2.7213



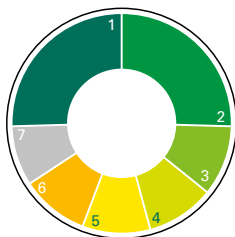
#### Baku-Tbilisi-Ceyhan (BTC)

1. BP	30.10
2. SOCAR	25.00
3. Chevron	8.90
4. Statoil	8.71
5. TPAO	6.53
6. Total	5.00
7. Eni	5.00
8. ITOCHU	3.40
9. INPEX	2.50
10. ConocoPhillips	2.50
11. ONGC <sup>c</sup>	2.36



#### Shah Deniz/South Caucasus Pipeline (SCP)

1. BP	25.5
2. Statoil	25.5
3. SOCAR	10.0
4. LUKOIL	10.0
5. Total	10.0
6. NICO	10.0
7. TPAO	9.0



#### Shafag-Asiman

1. BP	50
2. SOCAR	50



<sup>a</sup> The State Oil Company of the Republic of Azerbaijan (SOCAR) is represented in the above-mentioned projects through its affiliates: ACG – AzACG; Shah Deniz – AzShahDeniz; SCP – AzSCP; BTC – AzBTC, Shafag-Asiman – SOCAR Oil Affiliate (SOA).

<sup>b</sup> Hess (ACG) Limited has sold its interest in ACG to ONGC Videsh Limited on 7 September 2012.

<sup>c</sup> Hess (BTC) Limited has sold its interest in BTC to ONGC BTC Videsh Limited on 7 September 2012.

### Western Route Export Pipeline

This 829km pipeline moves oil from the Caspian basin via Sangachal terminal to Supsa on Georgia's Black Sea coast. Since 1997, the Western Route Export Pipeline (WREP) has undergone extensive refurbishment by BP and its co-venturers. Around 29.1 million barrels of oil was transported from Sangachal through WREP during 2012.

#### Exploration

On 6 May 2011, the parliament of the Republic of Azerbaijan ratified a new production sharing agreement (PSA) between BP and SOCAR relating to the exploration and development of the Shafag-Asiman structure in the Azerbaijan sector of the Caspian Sea.

The block lies some 125 kilometres (78 miles) south-east of Baku. It covers an area of about 1,100 square kilometres and has not been explored. Located in a deepwater section of about 650-800 metres, it has a reservoir depth of around 7,000 metres.

On 4 January 2012, the *Gilavar* seismic vessel completed the planned 3D seismic acquisition on the Shafag-Asiman structure. The seismic survey, which commenced in November 2011, was the first in the area and was conducted in line with our exploration plans as defined in the 2011 PSA between BP and SOCAR on joint exploration and development of the Shafag-Asiman structure in the Azerbaijan sector of the Caspian Sea.

#### Legal entities responsible for BP AGT projects

Project	Operator	BP share holding entity
ACG	Azerbaijan International Operating Company	BP Exploration (Caspian Sea) Limited
BTC	The Baku-Tbilisi-Ceyhan Pipeline Company	BP Pipelines (BTC) Limited
Shah Deniz	BP Exploration (Shah Deniz) Limited	BP Exploration (Azerbaijan) Limited
SCP	South Caucasus Pipeline Company Limited	BP Pipelines (SCP) Limited
Shafag-Asiman	(to be appointed)	BP Shafag-Asiman Limited

Over the rest of 2012 and into 2013, data was being processed from what is believed to have been the largest 3D survey ever conducted in Azerbaijan waters. Some 18 months will be required in all for data interpretation and another year for planning of a possible first exploration well.

#### Integrated Supply and Trading

The BP group's London-based Integrated Supply and Trading unit – one of the world's largest energy trading teams, which provides efficient trading execution, optimization and risk management services to the BP group – markets equity crude oil produced by BP AGT.

#### BP lubricants in Azerbaijan

BP and Castrol brands are supplied to all BP projects in Azerbaijan by the Petrochem Group. In 2012, about 2.5 million litres of lubricants were delivered to BP and its contractors in Azerbaijan. BP Castrol lubricants were also supplied to most oilfield services contractors working in Azerbaijan.



# How we operate

Various continuous improvement initiatives designed to improve the way we manage and develop our people, strengthen our safety culture and deepen relationships with contractors and stakeholders took place in 2012.

## Our goals

We strive to be a safety leader in our industry, a world-class operator, a responsible corporate citizen and a good employer.

We aim to conduct our business in ways that benefit local communities.

## In this section

13%

more national employees worked in senior level positions in 2012 than in 2011.



\$6.8 million

spent through human resources on staff training in Azerbaijan, Georgia and Turkey.

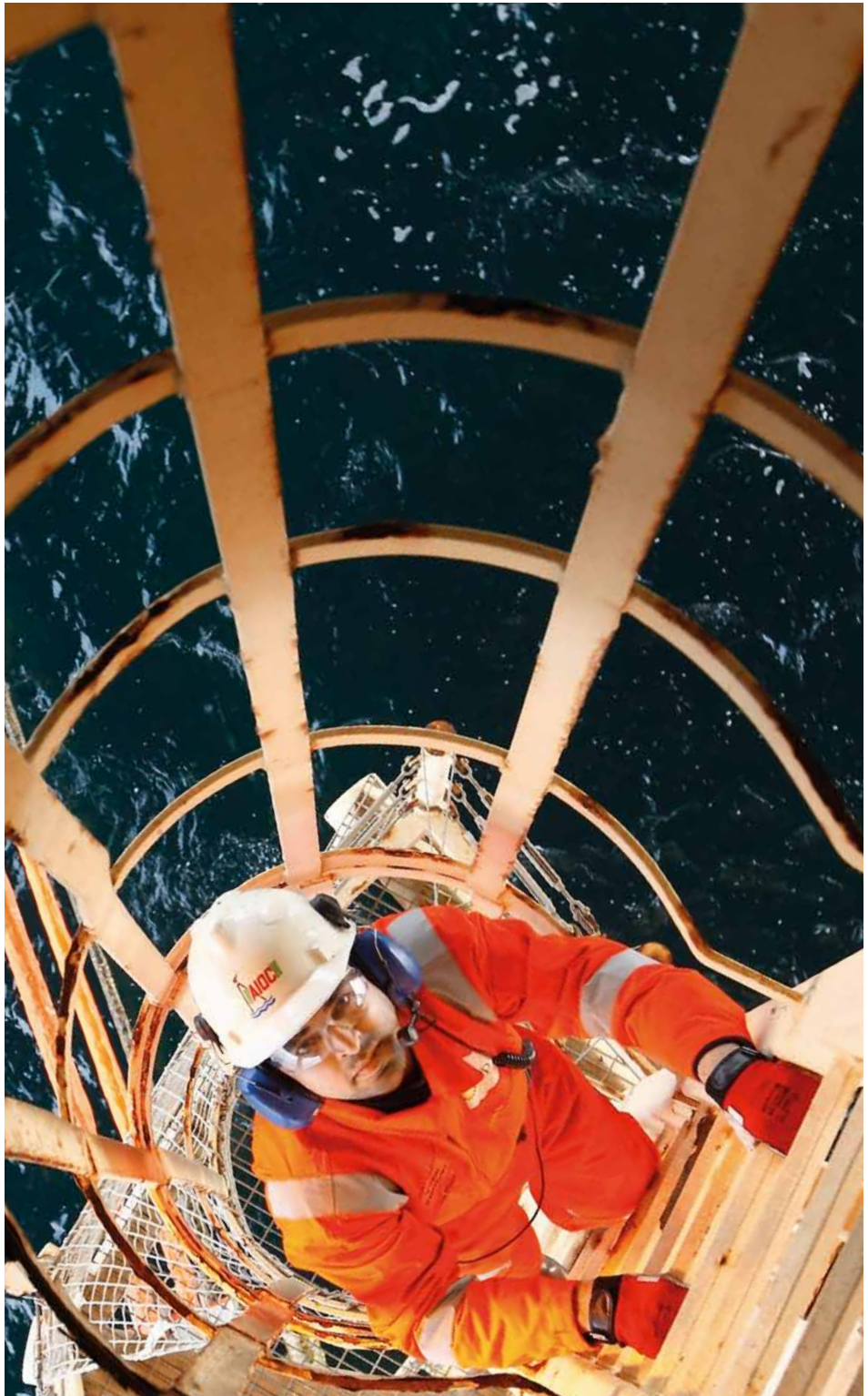


We launched the new Petro-technical Resource Entry Programme to train Azerbaijani graduates for successful careers within BP.



## East Azeri platform

We continue to embed our operating management system as the way BP operates.



# Management systems

The BP group's operating management system underpins the supervision of all our activities in a systematic way.



Continuous Improvement Champions forum brought together colleagues from across the Azerbaijan-Georgia-Turkey region.

## Operating management system

The operating management system (OMS) provides a uniform framework for safe, compliant and reliable operations across the BP group. It is designed to help BP people identify and eliminate defects and deliver tangible improvements on a daily basis.

In the Azerbaijan-Georgia-Turkey (AGT) region, OMS forms the framework for all our operations. It provides a single, systematic approach to what we do and puts safety and risk management at the heart of our work. A performance improvement cycle embedded in the system drives continuous improvement. OMS is rooted in our values and our behaviour and is designed to produce deep capability and a safe operating culture at all levels of the company.

Contained within the OMS are key guiding principles and requirements for safe, reliable and compliant operations. It addresses eight 'elements of operating', under the areas of people, plant, process, and performance.

In 2012, in order to help operations in our region act as one team with one agenda, and to speak with one voice, we created a document titled 'How We Work' in BP AGT. The guide aims to help employees understand the important part they play and their contribution to the global BP Upstream business.

This guide has quickly become a valuable source of information about all aspects of our business in this region as part of BP Upstream, how we deliver safe and world-class business with thousands of employees, both offshore and onshore.

Our intention is that this will remain a current, living document – available online, and updated to capture all improvements and any changes to our responsibilities, organization or processes.

## Continuous improvement

Continuous improvement (CI) is about eliminating defects and addressing opportunities to make our work safer, more reliable and compliant to our overall high standards. In our region, CI is aligned with our priorities of safety, production and costs. Not only is the business performance improved but the environment in which people work becomes more stimulating and rewarding – leading, we hope, to high morale. About 150 of these projects were implemented by BP in Azerbaijan during the year. To foster the understanding of CI culture among our employees we released six videos featuring CI projects.

At the end of 2012, the second annual BP AGT CI Champions forum was held bringing together 96 employees from every team and every shift across the region. These CI Champions are individuals who we believe can support the systematic application of continuous improvement, so making us a stronger organization.

The theme of the 2012 forum was 'From Standalone CI to Systematic CI', where more than 30 CI projects were on display. There was lively discussion, posters for voting, and live demo stations for the Champions to test drive CI Connect (our online platform for sharing CI projects), and learn more about systematic continuous improvement.

## Mark Thomas

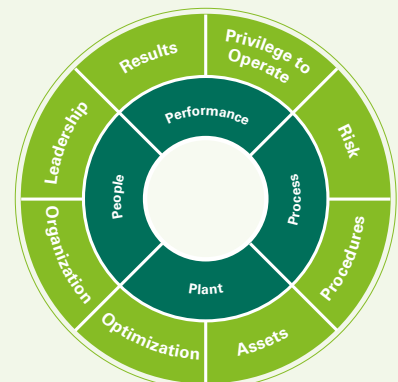
Operations Vice President,  
BP AGT

Systematic continuous improvement is not just a programme and it is not just a group of 100 of our people who think about continuous improvement every day. It is every single employee in our organization who every day thinks "How can I do my job a little bit better and easier?" That's why I'm expecting the continuous improvement champions to help every employee in our company to capitalize on the opportunities they have to make the business better.



## OMS elements of operating

The elements of operating provide a high level view of what it means to operate in BP. It divides how we operate into four broad areas: People, Plant, Processes and Performance. These have been categorized under a further eight key areas of focus. They are dependent on each other and provide a balanced approach to operating and a common way to categorize our operating activity. Each of the eight elements of operating is divided into several sub-elements. These sub-elements outline the specific operating activities that have to be completed and help us categorize BP group requirements.



# Security and human rights

## Juan Roman

Regional Security Adviser,  
BP group

I visited Azerbaijan and Georgia in April to conduct an internal assurance review of the implementation of the Voluntary Principles on Security and Human Rights. This was a rigorous process including internal and external meetings, as well as field based monitoring along export pipelines. In Azerbaijan, we help to train private security providers and include clauses on human rights in contract terms with them. We communicate our security standards to the state security providers and support human rights training. The assurance review confirmed that BP in Azerbaijan keeps up its strong record in VP's implementation.



Our mission is to protect BP's people, assets, operations and reputation and to ensure a safe and secure environment in which our business can operate.

We believe that security is the responsibility of each of our employees. Our collective responsibility as a company is to provide assurance and a clear security framework, manage security concerns in varying business environments and protect assets within BP-operated areas.

In 2012, we co-operated with our contractors and security partners to ensure that security was vigilant and compliant with our business commitments.

External perimeter protection of BP-operated areas in Azerbaijan, both onshore and offshore, is provided by the state security agencies.

### Working with communities

We aim to have constructive relationships with the communities in which we operate in Azerbaijan. The key elements, which contribute to an increased sense of security and responsibility are mutual support, people's co-operation, exchange of information on a regular basis, and shared vision on security issues. In 2012, we continued to seek opportunities to exchange information with community stakeholders on security arrangements in place. Regular Inter-Agency Security Committee meetings, organized and conducted by BP's regional security advisers were integral to this process. Our community liaison officers along with local government and municipality authorities, and public security officials participated in these events. During 2012, around 4,500 schoolchildren and teachers from 91 schools in 91 villages located along pipelines participated in these meetings.

In parallel we helped the Export Pipeline Protection Department (EPPD) to conduct quarterly Export Pipelines Security Commission meetings in various regions. This format, along with general assurance over security, facilitates the implementation of emergency response exercises in the regions in co-operation with our stakeholders.

We have an emergency phone hotline along the export pipelines' routes, which was established in 2009. It allows communities and individuals to report complaints about the use of force or human rights abuses both to the company and to the relevant state security provider for follow up. No security or human rights-related incidents were reported via the hotline in 2012.

### The UN Guiding Principles on Business and Human Rights

Endorsed by the UN in 2011, the UN Guiding Principles outline specific responsibilities for businesses in relation to human rights. BP is committed to working towards aligning our processes with the Guiding Principles.

In 2012, the BP group developed BP's Business and Human Rights Policy, and launched it in March 2013. The policy applies to every BP employee. Although it is new, human rights principles are already at the heart of many of BP's existing practices, particularly in its code of conduct and values, but also in many operational requirements.

### Voluntary Principles on Security and Human Rights

The expansion of the VP best practices at our operations in Azerbaijan remained a focus for us in 2012.

Launched in 2000 by the US and UK governments, several energy companies including BP and human rights non-governmental organizations (NGOs), the Voluntary Principles on Security and Human Rights (VP) are designed to safeguard rights by ensuring that police, security forces and private guards assigned to protect energy sites or pipelines are properly trained and closely monitored.

In April, the BP group security adviser conducted an assessment of the implementation of the VP in Azerbaijan. Internal interviews were held with our communications and external affairs and security departments. External meetings were held with our private security contractor, Inter-Agency Security Committee members, EPPD and the US Embassy human rights officer. The review found that BP in Azerbaijan continues to maintain a strong programme based on BP's internal policies and the VP guidelines. We maintain effective relationships with regional authorities, public and private security partners.



Security check at Sangachal terminal.

In the meantime we engaged the host government at multiple levels in line with the bilateral security protocol (BSP) signed with the government of Azerbaijan. This obligates the state security forces to follow the VP. In particular, the EPPD continued to operate its human rights training programme for all new recruits and to hold refresher courses for experienced members. As a result, 76 EPPD officers certified by Equity International to provide VP training continued to conduct this training in 2012. To date, there have been no reported incidents related to the protection of BP-operated facilities in Azerbaijan that have involved allegations of misuse of force by the EPPD. Procedures stemming from the BSP drafted in 2012 are currently under internal legal review.

Training by our private security contractor also continued in 2012. The contractor now employs a full-time training officer to ensure that all new recruits go through a training process. It also holds refresher courses for its employees. During the year, 120 security guards, including staff assigned at pipelines and at Sangachal terminal (ST) and in our offices, participated in VP training.

On 13 December 2012, an exercise based on a VP scenario involving BP security representatives, EPPD, our private security contractor, community members and the Garadagh district authorities was conducted at ST. This covered human rights issues involved in a typical security operation.

During the exercise, those taking part monitored VP-related indicators such as meeting and greeting, identifying concerns, body language, handling aggressive behavior and crowd control. Among the indicators assessed were the level of preparedness of public and private security teams, their ethical and behavioural conduct, their ability to manage extraordinary situations without interrupting normal operations and the existence of technical tools such as loudspeakers and designated assembly points.

### Interacting with public and private security

During 2012, we negotiated and agreed with EPPD the funding and purchase of a vehicle designed as a mobile guard post. The objective was to ensure appropriate conditions and the wellbeing of government patrols involved in the protection of the export pipelines in remote and off-road areas.

We also facilitated a joint offshore security audit related to operations risk assessments and issues associated with bilateral co-operation between the public and BP in the provision of security at offshore installations.

In another development our private security guard contractor Titan D allocated a dedicated employee with accountability for VP issues. The BP group security review had suggested that Titan D become better acquainted with BP's code of conduct. Since the review we have further assisted Titan D by sharing information on the code. We have not received any reports of violations of human rights by Titan D.

### Grievance resolution

The Baku-Tbilisi-Ceyhan/South Caucasus Pipeline (BTC/SCP) grievance resolution mechanism remained active in 2012. In 2012, our six community liaison officers (CLOs) and stakeholder relations lead at Sangachal terminal continued to hold public consultations and to manage community-related grievances and requests along the pipeline routes. During the year, CLOs held 74 community consultations including meetings on the importance of adhering to restrictions and limitations while using the lands for agricultural purpose, preventing and mitigating violations in the pipeline zone, and information on BP community projects.

We continued to conduct annual community liaison audits of BTC pipeline major contractors to monitor their social performance. We received no new written complaint in 2012. A land-related complaint from 2011 was resolved in November 2012.

In parallel, we received 281 requests related to permission to work on different types of activities on pipeline right-of-way land. Of those, 218 were resolved satisfactorily in 2012 and 63 in 2013.

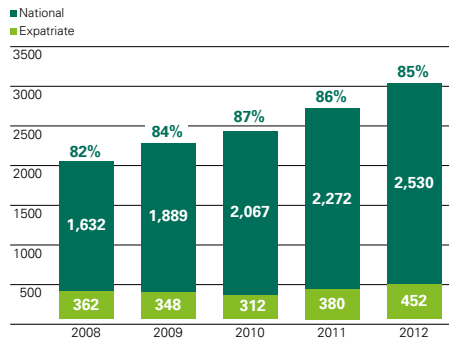
We also received five requests from communities around ST regarding terminal-related matters. These related to recruitment of local people, skills training and infrastructure improvement. To address some of these issues our contractors hired about 200 people from Garadagh district. Azfen, our main contractor at the terminal, recruited 155 people from Sangachal, Umid, Massiv 3 and Azimkend settlements.

# Our people

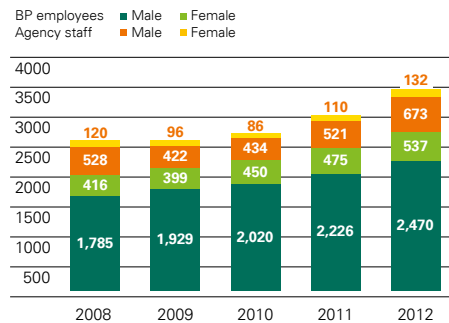
Our sustainability as a company depends on the skills, behaviour and involvement of our people. In 2012, we took additional measures to boost the number of local specialists working for BP in Azerbaijan.

## Professional staff of BP in Azerbaijan

This chart also shows the percentage of national citizens<sup>a</sup>



## BP permanent employees and agency staff<sup>b</sup> based in Azerbaijan



Our employees at the West Chirag topside construction site.

The safety of our staff and operations remains our number one priority. Every employee is required to set safety objectives in their annual performance plan.

Building a strong national workforce is another key priority. We aim to achieve this by attracting new talent and by actively managing the performance and career development of existing employees.

In 2012, the number of permanent national employees increased by 234, or by more than 11%. This demonstrates our commitment to

developing a professional national workforce. At the end of 2012, 85% of professional staff of BP in Azerbaijan were national citizens, compared with 86% a year ago. The slight decline was due to a ramp-up in our activities, which required us to hire new workers with specific skills, mainly in engineering and wells disciplines.

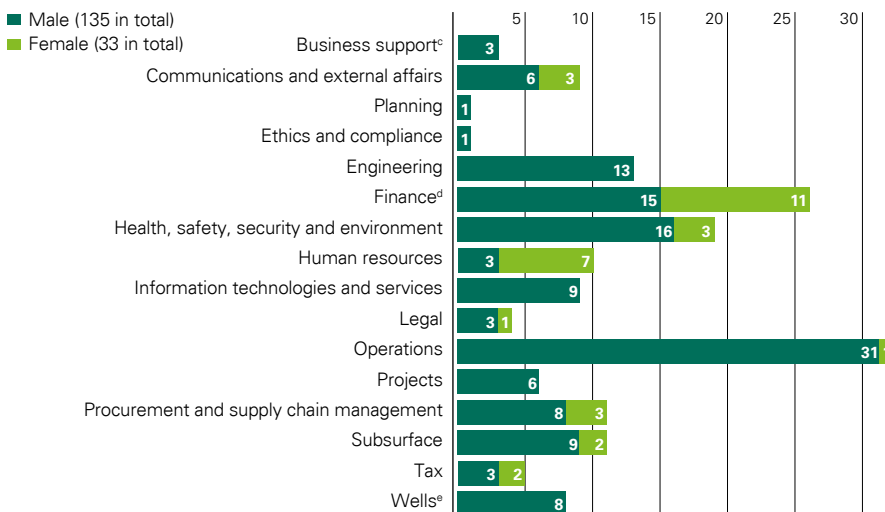
We plan to meet future demand for qualified personnel, in part, through the innovative petro-technical resource entry programme (PREP), which we launched in 2012. PREP will train new Azerbaijani petro-technical graduates for successful careers within BP. Read more about PREP on page 23.

The number of senior level national employees in Azerbaijan reached 168, having grown by 13% over the year. Majority of senior female employees worked in finance and human resources, while male managers were mostly employed in operations, engineering, finance and health, safety, environment and security (HSSE). Another 22 Azerbaijani employees were on assignments in senior level positions in other countries.

## Recruitment

We believe that people are our most important resource. It is their talents and their commitment that we rely on every day to sustain our operations. We strive to choose the right people for every job, train them well and treat them with respect. Additionally we monitor our recruitment procedures and policies on a continuous basis to ensure that we get the entire process right and that everything we do is efficient and transparent.

## Senior level Azerbaijani managers



<sup>a</sup>This also includes 65 Azerbaijani national professional employees on assignments.

<sup>b</sup>Agency staff work for BP but are officially employed by recruitment agencies.

<sup>c</sup>Business support includes 'executive management' category reported last year.

<sup>d</sup>Finance includes 'commercial' category reported last year.

<sup>e</sup>This function was previously called 'drilling and completions'.



## Mutually beneficial co-operation

In 2012, two young industry specialists from the human resources (HR) department of State Oil Company of Azerbaijan Republic (SOCAR), Sabina Garabeyli and Elnur Panahaliyev, took part in BP AGT HR processes for three months during an internship programme supported by both organizations. Both secondees subsequently left us full of enthusiasm, not least for BP's values and behavioural approach.

Sabina describes her experiences: "While in BP, I participated in the early stages of the creation of a new Team Leader Pack. The idea was to assist employee transitions from mid-level to managerial positions. I took part in real life job interviews as an observer and an interviewer. I was also able to interact with BP line managers, team leaders and employees outside HR, which gave me a real insight into the organizational culture. It all helped me to understand employee life cycles and BP's HR processes."

Adds Elnur: "BP's learning and development system has been tried and tested in several countries. It is a very profound and well thought through process. I found that there is a lot of flexibility and interaction between all levels in day-to-day work."

"This secondment programme is shaping up as a great way to increase understanding between BP and SOCAR. And the relationships created during the programme are likely to benefit both organizations," says Sue Adlam Hill, vice president of human resources. "Sabina and Elnur were the sixth and seventh secondees we've hosted in a two year period. They were great ambassadors for SOCAR. We feel that as a result of their experience in our team, they'll be great ambassadors for BP, too."

In 2012, we ran our annual graduate and intern recruitment programme and attracted 3,357 applications for a wide range of technical and non-technical jobs. These included positions in operations, health, safety, environment, engineering, subsurface, wells, finance, procurement and supply chain management, and information technology. Some 2,022 applicants passed the initial screening and 351 reached the final interview stage. Subsequently we hired 57 summer interns and 104 graduates, 50 of whom were offered a permanent job with BP while the other 55 enrolled for the PREP training programme.

In parallel, two technician hiring campaigns were conducted and resulted in job offers to 120 technicians. Hired technicians of various disciplines must then pass an intensive 18-month

training programme at the Caspian Technician Training Centre. Once they do so, they are deployed to offshore and onshore positions.

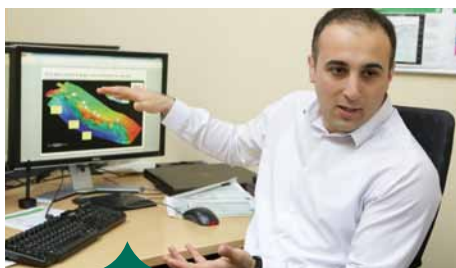
Ad-hoc vacancies were advertised on [bp.com/caspian](http://bp.com/caspian) throughout the year. We received more than 11,000 applications in 2012 and hired 157 national employees.

In addition to market competitive salaries, all BP employees receive other cash and non-cash benefits, such as medical insurance, access to recreation facilities, annual performance-based bonus, and share buying options. We have upgraded the medical insurance package offered to employees and their dependents by extending the list of covered conditions and lifting the coverage amount by more than 50%.

### BP in Azerbaijan recruitment statistics\*

	Ad hoc recruitment		Graduate recruitment				Total	
	2011		2012		2011		2012	
	Female	Male	Female	Male	Female	Male	Female	Male
Business support	19	18	45				19	63
Commercial	1						1	
Communications and external affairs	1	3	1	1			4	2
Compliance and ethics			1					1
Engineering	2	11	1	5	6	18	1	10
Finance	3	6	7	8	2	2	5	11
Health, safety, security and environment	4	17	1	18	2	4	4	6
Human resources	5	1	6	1	3		2	1
Information technology and services		2	2				2	2
Legal	1	2						3
Logistics								
Operations	8	43	4	15			51	19
Planning	1	3					1	4
Procurement and supply chain management	5	22	4		3		30	4
Projects	1	5	3	7			6	10
Subsurface	2	5	4		1	10	1	5
Tax	1		2	1			1	3
Wells			1	1	2	13	3	9
<b>Total graduates</b>					14	50	13	37
<b>Technicians recruitment</b>					119	1	119	
<b>Total ad hoc</b>	54	120	45	112			174	157

\*Graduates and technicians are recruited through regular campaigns.



## Opportunities at every turn

Afgan Huseynov always imagined his career to be quite straightforward. Working for BP has taught him, however, that there are many paths one can follow and many decisions to take.

"I started in BP as a production technician at Sangachal in 2004," he recalls. "Having just graduated from the Azerbaijan State Oil Academy as a geologist, suddenly I was working for BP at a huge oil and gas terminal as it prepared to receive the first oil from the Central Azeri platform."

While working at the terminal Afgan applied for a BP scholarship to study subsurface disciplines. "I was successful in winning a scholarship to do my master's degree in geosciences at the Middle East Technical University (METU) in Turkey," he says.

After graduation from METU, Afgan re-joined BP as a Challenge geologist in 2007. "As part of the Challenge programme I was posted to Sunbury to work in the Shah Deniz Reservoir Management Team. This gave me the chance to work with and learn from many of BP's leading geoscientists."

On his return to Azerbaijan, Afgan took on a 'new well delivery' role. With this role, he got involved in the Azeri-Chirag-Deepwater Gunashi operations and gained valuable offshore experience. In 2009, an opening arose to work alongside an experienced expatriate and to gain expertise in working in pore pressure and well integrity.

"I was encouraged by my team leader and new well delivery manager to take on an 'acting' team leader role," says Afgan. "Then in 2012 I stepped into a leadership role myself and became geo-pressure and drilling hazards team leader for the AGT region."

"I've enjoyed the freedom and support to gain a wide range of experiences in BP," he says. "It has made me realize that there are likely to be career paths and opportunities ahead that I have yet to imagine."



BP stand at the 6th Azerbaijan International Education and Career Exhibition, September 2012.

## Employee communication and engagement

### Annual staff satisfaction survey

Each year, we conduct an employee survey to understand and monitor engagement and satisfaction, and to identify areas for improvement. In 2012, the survey had a response rate of 37%, which means 1,259 employees completed it in the BP AGT.

Overall engagement of BP AGT employees at 75% was slightly down (2%) from our 2011 engagement score, but above the BP group (72%) level. Our score was the highest in three areas: understanding the business context; action; and communication.

The results and associated action plans were discussed in leadership town hall meetings with employees.

### Technicians' forums

The daily work that technicians carry out on production platforms, in terminals and along pipelines is central to our business. Enhancing communication with this group is one of our highest management priorities.

In 2008, we set up the BP technicians' forum to create an opportunity for technicians to meet and talk directly to our top leadership, share experiences and provide feedback on processes and initiatives within BP in Azerbaijan. The forum is 'owned' by the technicians who contribute to each forum's agenda and may raise any concerns and make suggestions as they wish.

Over the past four years, several initiatives have resulted from feedback received at these events. These include the introduction of a coaching assessment tool and changes to the technician training. Technicians have also been encouraged to establish working groups, partnering with business leaders and human resources professionals. More than 370 technicians have participated in these meetings since 2008, including 72 technicians in two forums held in 2012.

### Listening lunches

Improving communication and employee engagement are among the core priorities of our leadership team. To make this interaction more powerful informal quarterly lunches are held between members of the regional leadership team (RLT) and employees.

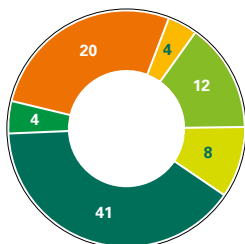
For the RLT this is mostly a listening exercise that gives employees exposure to leaders, and provides employees with an opportunity to ask questions and receive information on various business issues, both within and beyond the BP AGT. The lunches also facilitate RLT access to opinions from different layers of the company. A total of four listening lunches were held in 2012, with more than 60 employees.

### Social activities

We organize social team events outside the normal business environment. We believe such occasions provide an opportunity for employees from many teams to meet each other in a relaxing, non-work atmosphere.

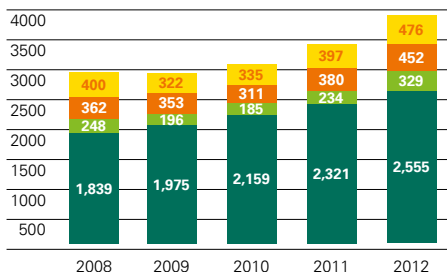
### Azerbaijani nationals on BP expatriate assignments

Continuing Male Female  
Continuing (started in 2012) Male Female  
Finished Male Female



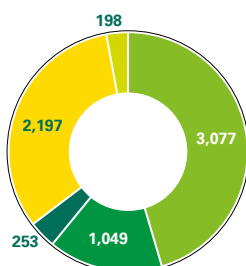
### BP national and expatriate employees based in Azerbaijan

National BP employees Agency staff  
Expatriate BP employees Agency staff



### Training expenditure of BP AGT\* (\$ thousands)

Health, safety and environment/emergency response  
Operations  
Petro-technical  
Professional<sup>b</sup>  
Core/foundation/leadership



\*This and other diagrams and tables reflect only training administered by the human resources team.

<sup>b</sup>Disciplines covered are wells, engineering, subsurface, communications and external affairs, and finance.

Activities in 2012 included futsal, backgammon, chess and basketball tournaments. Basketball and futsal events took place between teams from BP in Azerbaijan and BP in Georgia. The BP in Azerbaijan basketball team won the Azerbaijan Business Cup annual basketball tournament.

### Loan support programme

In March 2012, we launched our loan support programme – a new benefit for all Azerbaijani national employees who have worked in the company for three years or more. The programme contributes towards defined bank loan commitments relating to the purchase or repair of houses or apartments, house construction, and the education of employees' children under 18 years old.

This is a market-leading offer in Azerbaijan and has been designed to improve staff retention and motivation by facilitating access to affordable loans. In the programme's first nine months, 937 employees took up this offer with the sum of the loans totalling about \$4.2 million.

### Other activities

In 2012, we recognized 148 employees with long service awards. Since 2008, about 950 employees have been recognized in this way. In addition, we held five town hall meetings to discuss topical issues.

### Expatriate BP employees working in Azerbaijan

Discipline	Total	2011		2012	
		Incoming	Outgoing	Incoming	Outgoing
Business support	1			1	
Commercial			1		2
Communication and external affairs			1		
Engineering	105	31	3	37	9
Finance	11	2	2	4	
Health, safety, security and environment	11	5	2	5	2
Human resources	3	1	2		
Information technology and services	3			2	
Legal	3			1	1
Operations	87	31	23	16	19
Planning		1			
Projects	21	7	2	6	1
Procurement and supply chain management	7	5		1	2
Subsurface	29	10	9	10	3
Tax			1		1
Technicians	46			11	4
Wells	125	42	21	46	24
<b>Grand total</b>	<b>452</b>	<b>135</b>	<b>67</b>	<b>140</b>	<b>68</b>

Our internal Azerbaijan-Georgia-Turkey region website was regularly updated. The regional intranet was instrumental in dissemination of information and running various campaigns. We published four issues of the staff magazine 'Compass' in 2012, both in Azerbaijani and English and distributed them across the region.

### Expatriates

While our commitment to staff nationalization continues, expatriates from many countries are playing a significant role in delivering BP's objectives in Azerbaijan. Coming from different nations from five continents, they bring with them specialized skills and cultural diversity, and help to form a comprehensive approach to the working challenges we face.

More than 60% of the 452 expatriate BP employees in Azerbaijan are from Europe and about quarter are from the US. The remainder are from Canada, Egypt, Trinidad & Tobago, Colombia, India, Australia and Indonesia. In 2012, 140 new expats arrived in the country while 68 people left, constituting a net increase of 72. The highest growth was in engineering and wells.





## Reaching out

Sue Adlam-Hill, vice president of human resources for BP in Azerbaijan, shares her language learning experiences:

“After more than five years in Azerbaijan I would hope to be able to tell you that I am fluent in Azerbaijani... but I am not. However, I am the proud owner of a framed certificate declaring that I progressed through the Beginner and the Elementary stages, ultimately reaching Intermediate Level 2.

This effort has transformed my experience of being in Azerbaijan. At work I just use Azerbaijani for simple things – greetings, logistical arrangements and the occasional pre-planned speech at events.

Outside work I feel less inhibited. Whether I’m out in Baku city or exploring the regions I’ve used my broken Azerbaijani to help me through situations and to open up connections that I could never have imagined. I’ve been the guest of hospitable Azerbaijani families everywhere from Sheki to Lahij to Nakhchivan. People here are delighted to see a foreigner making an effort with their national language.

On my side I’ve understood things about this country that I would never have appreciated otherwise. I’m clear that my efforts with Azerbaijani language and culture have helped me do a better job for BP and for my team.

I would encourage anyone who is on assignment to Azerbaijan to give the Azerbaijani language a try. Even if you master just the basics it will help create a whole new level of connectivity with this fast-changing and fascinating country – a connectivity in my case, which will stay with me for the rest of my life, along with some wonderful friendships.”



The technical jury evaluated projects presented by 19 Challengers and 15 summer interns at the second regional *TechnoFest*, August 2012.

## Learning and development

In 2012, we spent almost \$6.8 million on a range of training in the AGT region. A total of 1,340 training sessions were held in the region, with the number of attendees reaching almost 10,000. Of these sessions 1,159 or more than 86% were held in Azerbaijan. A range of safety, technical, managerial and behavioural training was offered.

### Continuing professional education

We encourage our full time national employees to continue their education by providing financial assistance to help them attain additional degrees or certificates in their areas of expertise.

In 2012, a total of 36 employees in midstream, subsurface, operations, safety and operational risk, finance, and communications and external affairs received support through this programme. During the year, 10 employees applied for MSc degree programmes at British educational institutes, and 26 more were able to take advantage of other postgraduate learning opportunities.

### Language learning

We continued to offer English language training courses to national staff, and Azerbaijani language courses to expatriates living in Azerbaijan. By the end of 2012, almost 320 national employees were taking English lessons. More than 80 expatriates chose to study Azerbaijani. Besides regular classes, expatriates are offered talks on Azerbaijani history, culture and traditions.

## Challenge programme

To attract and develop young talent in BP in Azerbaijan, we have a scheme for professional disciplines known as the Challenge programme.

Typically, Challengers fulfil two roles of between 18 to 24 months duration while on the programme. On completion, the graduates are expected to be competent specialists able to contribute fully to BP’s business agenda and future growth.

During 2012, 29 national Challengers graduated successfully from the programme in Azerbaijan and progressed to more senior roles. The total national Challenge population in Azerbaijan reached 158.

### Petro-technical learning programme

The BP petro-technical resource entry programme (PREP) is an international-standard learning and development tool that trains young Azerbaijani petro-technical graduates for successful career paths within BP. This is in line with BP plans to increase the number of national graduates that the company recruits annually to support business growth in the region.

PREP is a world-class learning programme that creates an opportunity for petro-technical graduates to specialize in surface engineering, subsurface and wells. It is designed to help petro-technical graduates deepen their technical knowledge, business awareness and communication and English language skills.



## An image of inspiration

The cover photo for *BP in Azerbaijan Sustainability Report 2010* is an image familiar to many. Aysel Javadova, the BP Challenge drilling engineer in the photo, works now as well interventions engineer for BP in Azerbaijan.

Back in 2008, Aysel's application to BP's graduate recruitment programme was successful. She was admitted to the Challenge programme in the wells department and sent offshore to the Deepwater Gunashli (DWG) platform for a year as a Challenge drilling engineer. Many things had to be learned from zero but the Challenge programme, with its division into modules and its constant support from mentors, helped greatly.

It was at that time in 2009 that her famous photo was taken at DWG. Then Aysel's career advanced to well interventions. On her manager's advice Aysel next applied to the new Accelerated Development Programme (ADP). "The assignment in Prudhoe Bay, Alaska as part of the ADP caused a total change in my life" she says, "Prudhoe Bay is a pretty mature field and they involve more diverse operations and technologies to keep up the production". The ADP puts the trainee on each of four service lines during the first six months.

Subsequently, the trainee works as an independent well site leader assigned to a unit. For the first time Aysel was leading others as a BP supervisor. It was an exciting assignment with new responsibilities and challenges. At the end of her one year assignment in Alaska, Aysel successfully graduated from both the ADP and Challenge programme.

Now she is back in Baku, really excited to be in the Caspian with BP. Her photo on the cover of the Sustainability Report remains an inspirational image of the new generation of world-class young Azerbaijani professionals that BP is advancing to lead future hydrocarbon developments in the Caspian.



Young drilling and interventions engineers at the wells department.

Recruitment to PREP takes place annually within BP's graduate recruitment process. The programme starts each September and lasts 11 months. It is being held at BP's new Petro-technical Learning Centre in Baku's Old City. In 2012, the first group of 55 Azerbaijani graduates enrolled in the programme. The project is being delivered in collaboration with Heriot-Watt University (UK), and TTE-Petrofac (UK).

### Technicians to engineering programme

The technician to engineering initiative is designed to encourage technicians with the right backgrounds to pursue an engineering career within the organization. Successful candidates are identified through a rigorous selection process based on the individual's experience and capability and form a pool of candidates for current and future engineering positions. In 2012, 60 technicians applied, 29 were interviewed, and seven were selected as candidates in four engineering disciplines.

### Upstream eXcellence programme

Further development of BP's Upstream eXcellence programme took place in 2012. The programme has been conceived as a transparent, objective way for our employees to see how best to develop their skills and capabilities and achieve their desired roles. In 2012, the programme was rolled out across the health, environment, human resources, finance and projects disciplines.

At the core of the programme is a distinctive, performance-focused development process intended to enhance our organizational capability. It also supports individual development by giving employees a clear view of their possible future career paths, so promoting meritocracy.

### Caspian Technician Training Centre

The Caspian Technician Training Centre (CTTC) provides a unique service to BP and its co-venturers in our pursuit of greater employee nationalization in Azerbaijan, Georgia and Turkey. In addition, it acts as a regional centre of excellence in the BP group with our operations in Oman and Iraq using its services.

Since the first graduations in 2004, more than 800 technicians have been trained on its Foundation programme. In 2012, 51 technicians were deployed to onshore and offshore assets after graduation.

In 2012, CTTC also achieved a new milestone when it recorded about two million man hours with no lost injury time and about 1.3 million accident-free kilometres travelled.

# Our code of conduct

To be a trusted company we work to a consistent and high set of standards and strive to live up to these standards in everything we do.

Our code of conduct sets out basic rules we all must follow and explains how our values should guide all of our decisions. The code stands for a commitment to comply with all applicable legal requirements and high ethical standards set out in the code of conduct.

## Operating safely, responsibly and reliably

Everything we do relies upon the safety of our workforce and the communities around us. We make it a top priority to protect our own people, as well as that of our colleagues and others we come into contact with. We are also committed to protecting the environment and respecting the rights and dignity of communities around the world where we do business. Our health, safety, security and environment goals are no accidents, no harm to people and no damage to the environment.

## Our people

We are one team. Whatever the strength of the individual, we will accomplish more together. We put the team ahead of our personal success and commit to building its capability. We also trust each other to deliver on our respective obligations.

We are committed to creating a workplace that is characterized by respect for people's rights, responsibility, excellence and mutual trust.

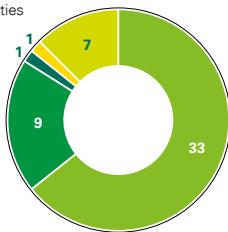
We value diversity of people and thought. We believe everyone should have equal opportunity.

## Zero tolerance on retaliation and speak up culture

Our zero tolerance policy on retaliation goes hand in hand with our belief that speaking up is always the right thing to do. BP employees need to have courage to speak up. This means we always must ask for help when we have questions about our

## Reported breaches in Azerbaijan (by code of conduct chapter)

- Operating safely, responsibly and reliably
- Our people
- Governments and communities
- Our business partners
- Our assets and financial integrity



code of conduct or believe it is not followed. During 2012, we held a number of 'speak up' sessions for BP Leaders, who in their turn cascade the importance of our speak up culture to their teams.

We are committed to looking into potential breaches or questions that are raised, and to dealing with them fairly and responsibly. Our employees have the choice of talking the problem through with their line manager or getting in touch with legal, human resources or ethics and compliance. If employees are not comfortable contacting any of the people identified above they always have an opportunity to contact OpenTalk. OpenTalk is a confidential helpline that is available anytime day or night, every day of the week and in more than 75 languages.

## Our business partners

Everyone benefits from business relationships based on trust and honest discussion. They are vital to our success. To make sure our business relationships work to everyone's advantage, we need to understand the needs of our stakeholders and work with them honestly, respectfully and responsibly. This includes our customers, contractors, suppliers, joint venture partners and other third parties.

## The governments and communities we work with

We respect the world in which we operate. We are committed to our role in society and to meeting our obligations to the countries and communities in which we do business. We depend on the relationships we have, respect the countries and communities we work with, and want them to benefit from us being there. We aim to make real improvements that contribute to sustainable growth by creating wealth and jobs, developing useful skills, and investing our time and money in people. We care about the consequences of our decisions, large and small, on those around us. We do not engage in bribery or corruption in any form, whether in the private or public sector. Neither does BP get involved in political activity or make political contributions.

## Our assets and financial integrity

We all share a responsibility and a legal duty to protect BP's property, intellectual property and financial assets. We always take care in using our assets and resources.

We comply with all the applicable laws and regulations in the way we record, retain and report information. These include International Financial Reporting Standards for group financial reporting and the relevant Generally Accepted Accounting Principles where we do business.

## Our values

Safety
Respect
Excellence
Courage
One Team

Our values were set out by BP's leadership team in 2011 and are now being embedded into our group-wide systems and processes, including our recruitment, remuneration, promotion and development assessments. These five values express our shared understanding of what we believe, how we aim to behave and what we aspire to be as an organization. The goal was to ensure that BP's values support our aspirations for the future, align explicitly with our code of conduct and translate into responsible behaviour in the work we do every day.

## 2012 milestones

BP in Azerbaijan completed the annual ethics and compliance certification process in 2012. All BP employees were required to confirm their awareness and compliance with the code of conduct. Any misconduct or breaches of the code were recorded on online forms. Fifty six breaches were reported in the Azerbaijan-Georgia-Turkey region in 2012, compared with 76 breaches reported in 2011. Reported breaches were investigated and followed up with proper actions taken. A number of contractor and agency personnel were dismissed for non-compliance either with applicable local laws and regulations or for violations of the code of conduct principles. Examples of non-compliance included substance abuse, violation of safety procedures, inappropriate behaviour and misuse of company assets.

We have provided code of conduct e-learning modules to BP and agency employees on anti-bribery and corruption, anti-money laundering and conflict of interest. We have provided face-to-face code of conduct awareness sessions and anti-bribery and corruption training to BP employees and counterparties.



Our values and behaviours  
[bp.com/ourvalues](http://bp.com/ourvalues)

# Dialogue and engagement

BP in Azerbaijan engages with a wide range of stakeholders. These relationships help us to make responsible decisions.

During 2012, we interacted with stakeholders in Azerbaijan – government, civil society, communities, the media and other interested parties – in numerous ways:

## Government

Our partnership with the government of Azerbaijan continued and was broadened.

- In March, President Aliyev received the chairman of BP, Carl-Henric Svanberg.
- In April and December, President Aliyev received the group chief executive of BP p.l.c., Robert Dudley.
- We were official partners of Azerbaijan's National Olympic and National Paralympic Committees and sponsored seven athlete ambassadors from Azerbaijan during the London 2012 Olympic and Paralympic Games.
- With the State Oil Company of the Republic of Azerbaijan (SOCAR) we jointly hosted an event in London in August in honour of the Azerbaijan Olympic Committee.
- The BP AGT regional president hosted President Aliyev and his guests on the BP stand at the Caspian Gas and Oil Exhibition in June and demonstrated the scale of BP operations in the region via an interactive model.
- BP group executive vice-presidents Bernard Looney (Developments), Bob Fryar (Production) and Andy Hopwood (Strategy and Integration) visited Azerbaijan in October to discuss production challenges with SOCAR colleagues.
- We worked with SOCAR on issues of mutual interest within the framework of our production sharing agreements, host government agreements and other agreements.
- We completed a project to enable economic policy analysis and forecasting competency in the Ministry of Economic Development.
- We co-financed the capacity-building component of a business enabling environment project launched by the International Finance Corporation.

## Civil society

- We continued to support revenue transparency through the Extractive Industries Transparency Initiative.
- We held a meeting with local civil society groups to discuss BP sustainability reporting in Azerbaijan and globally.



Local media representatives during a construction site visit.

## Employees

We use a range of internal communications channels to keep our employees informed about the context within which they work. For information about employee communication and engagement see [page 21](#).

## Communities

- We continued to support sustainable development initiatives in communities near our facilities in Azerbaijan.
- We interacted with communities close to Sangachal terminal on recruitment, skills training and infrastructure improvement matters.
- We operated a grievance mechanism along the BTC/SCP route.
- We continued to work with the Inter-Agency Security Committee forum, which facilitates dialogue between BP, community members and government security providers.
- Our employees contributed to community development and education through the employee engagement programme.

## The media

- We issued quarterly business updates to the media, which reported the results of our activities in Azerbaijan.
- Our regional president met with local and international business journalists to update them on BP-operated projects.
- We arranged group and individual briefings for local and international journalists and provided regular updates and TV interviews on our activities in Azerbaijan.

- Three media workshops were held for local journalists. In addition, 22 visits to our sites were arranged for local and international media outlets including the BBC, Bloomberg and Le Figaro.
- We issued 23 press releases and six fact sheets covering 2012 milestones and developments in our business.
- We made a 24-hour response line available to the media.

## Other interested parties

### Business visits

We hosted more than 50 Sangachal terminal site visits by politicians, journalists and guests of our co-venturer companies as well as representatives of financial, educational and military organizations from about 20 countries.

### Students

- We continued to support efforts by Qafqaz University to broaden its scope to include undergraduate courses in engineering disciplines, including chemical and mechanical.
- We held feedback sessions with students from six local universities to discuss our *BP in Azerbaijan Sustainability Report 2011*.
- We supported scholarship programmes inside and outside Azerbaijan.
- We ran an internship programme to give students on-the-job work experience across BP in Azerbaijan.

### Contractors

We hosted informational and knowledge sharing event for our contractors to increase the participation of local companies in BP-operated projects.

### General public

- In November 2012, we participated in the Caspian International Environmental Exhibition – the biggest such event held in the Caspian and Caucasus regions.
- Our bilingual website [bp.com/caspian](http://bp.com/caspian) highlighting our activities in Azerbaijan and the region remained an important means to interact with the public. An average of more than 590 people visited the site every day – representing a 23% increase on 2011. In addition, we received 632 enquiries – 60% more than in 2011 – through our online enquiry form.

# Safety and health

This year a number of important initiatives were taken to sharpen safety awareness and improve the understanding of health issues.

## Our goals

Keeping a relentless focus on safety is a top priority for us. We work systematically to enhance safety and risk management.

Our safety and operational risk function supports the business in delivering safe, reliable and compliant operations across the business.

## In this section

**\$3 million**

spent on health, safety and environment / emergency response training activities in Azerbaijan, Georgia and Turkey.



**93%**

of actions resulting from the 2010 offshore safety and risk audit were closed by the end of 2012.



**16**

contractor health, safety and environment audits were conducted in 2012.



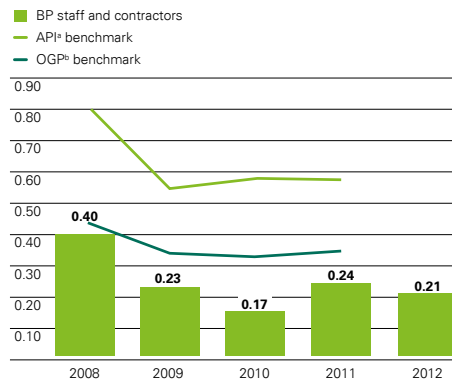
### Shah Deniz platform

We conducted a safety review of operations on Shah Deniz platform from a 'human factors' perspective.

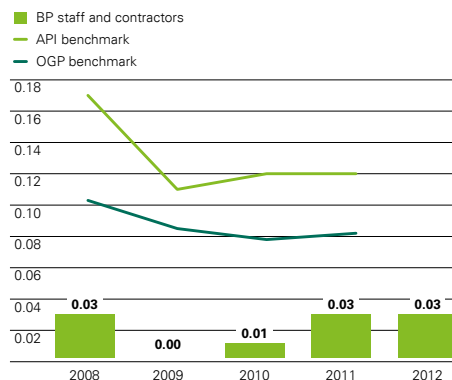


# Safety

## Recordable injury frequency (per 200,000 hours worked)



## Day away from work case frequency (per 200,000 hours worked)



<sup>a</sup>The American Petroleum Institute.

<sup>b</sup>The International Association of Oil and Gas Producers.

We remain focused on safety and are constantly seeking ways to improve our safety performance.

In 2012, improvements were achieved in our recordable injury frequency rates while there was more than an 8% increase in overall hours worked.

We also conducted a review to rationalize and streamline our emergency response documents at Sangachal terminal and export pipeline operations. The resulting documents are more functional and easier to use.

In 2012, we had four high potential incidents compared with six in 2011. Two related to dropped objects, one involved a small leak of oil and the fourth concerned frozen equipment related to the unseasonably cold temperatures of the 2011-12 winter. All of the incidents were investigated thoroughly and lessons learned reported.

## Driving safety

We remained extremely vigilant regarding our driving record in 2012. During the year, we developed a driving improvement plan, which sets clear requirements for safety, training, assessment and behaviour of drivers in the Azerbaijan-Georgia-Turkey (AGT) region. The plan was implemented and monitored by the safety and operational risk (S&OR) midstream health and safety team during the year. The number of serious driving related accidents has been significantly reduced in 2012. There were three recorded in 2011 and only one in 2012. Vehicle accidents recorded in 2012 are still primarily low speed in nature with minimal impact and damage. In 2012, we continued to enhance our driving safety programme by developing a driving improvement plan, which sets clear requirements for the training, assessment and behaviour of the drivers in the AGT region.

## Safety culture

In 2012, the main focus of our behaviour-based safety programme was on process safety and personal safety. In June 2012, enhancements to the programme were introduced to improve the monitoring of process safety observations.

There was also a focus on the ways individuals interact with their environment. By working to improve human reliability we aim to minimize the potential for error that impacts operations.

Since our activities at Shah Deniz (which produces high pressure gas) are highly reliant on human intervention, during the year we conducted a special review of operations on the platform from a 'human factors' perspective. This covered:

- A workload assessment. The assessment looked into the way production and management teams make decisions regarding optimal numbers of personnel required for the current mode of operation.
- A site operating procedure (SOP) analysis. This involved a safety critical task analysis, which highlighted key tasks within the SOP. As a result, we introduced a 'pilot / co-pilot' approach for critical tasks in which one person carries out a task and another verifies the actions.
- A safety and operating culture survey. Data gathered during this survey will be used to help modify operating culture over the next two years. Greater emphasis will be placed on 'human factors' issues.

## Safety training and awareness

In 2012, we spent more than \$3 million on health, safety and environment / emergency response training activities in the AGT region. No major new safety training initiatives were undertaken during the year.

## Safety performance of BP in Azerbaijan<sup>c</sup>

	2011	2012
Fatalities	0	0
High potential incident frequency <sup>d</sup>	0.07	0.04
Day away from work case frequency <sup>e</sup>	0.03	0.03
Recordable injury frequency <sup>f</sup>	0.24	0.21
Total vehicle accident rate <sup>g</sup>	1.27	1.50
Kilometres driven (millions)	14.2	15.96
Hours worked (millions)	17.54	19.04

<sup>c</sup>This table includes BP staff and contractors. BP's injury and illness definitions are the US Occupational Health and Safety Administration definitions and their subsequent interpretation. Data does not include project-only data.

<sup>d</sup>The high potential incident frequencies are based on the number of high potential incidents per 200,000 labour hours worked.

<sup>e</sup>A day away from work case (DAFWC) is a work-related injury that causes the injured person to be away from work for at least one normal shift after the shift on which the injury occurred. DAFWC frequency is the number of reported injuries or illnesses that result in an employee or contractor being unable to work a day (or shift) per 200,000 labour hours worked.

<sup>f</sup>Recordable injury (RI) is the number of all reported work-related injuries above first aid. The RI frequency is expressed as the number of reported recordable injuries per 200,000 hours worked.

<sup>g</sup>Total vehicle accident rate is the number of reported road accidents per million vehicle kilometres travelled.



Safety is at the heart of everything we do.

## Operational safety

Since the beginning of 2011, all BP-operated drilling and wells activity has been conducted through the company's global wells organization (GWO). This brings all our functional wells expertise into a single organization with common global standards designed to deliver safe and compliant wells.

In 2012, the GWO in the Azerbaijan-Georgia-Turkey region continued its drive to implement the 26 recommendations made in the Gulf of Mexico Deepwater Investigation Report. We progressed 22 centrally cascaded initiatives to bring in new and updated technical practices, strengthen operational guidance, enhance risk management processes and develop common capability standards for BP personnel and relevant service providers.

This represents a significant attempt to reduce risk across BP's global drilling activities and there is still work to be done. In 2013-14, we expect to implement the remaining recommendations.

Introducing the report recommendations in a systematic and controlled way will further embed our operating management system within the GWO and form the basis of how we operate.

## Midstream audit and regional verification process

The BP group S&OR function runs a systematic and structured operations-focused audit programme, conducted on a three-year cycle.

In June 2011, the BP AGT's midstream facilities, including relevant onshore support functions, were subject to an extensive S&OR group audit. The three-week audit reported a number of findings requiring actions with closure dates varying from several months to six years.

By the end of 2012, the BP AGT had internally verified and closed 82% of the 2011 midstream S&OR audit actions, as well as 93% of the actions resulting from the offshore S&OR audit held in 2010. Work continued on into 2013 to further close out remaining audit actions.

## Integrity management

### Onshore

#### Pressure systems integrity

Pressure vessels and pressure systems are required to undergo periodic statutory inspection to ensure continued safe and reliable operation. At the beginning of 2012, pressure systems equipment at Sangachal terminal underwent a review of its inspection history and associated maintenance. Following the review equipment was prioritized and included in the inspection plan.

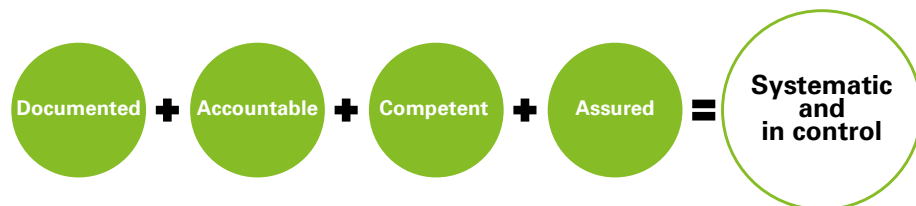
Process equipment installed at Azeri-Chirag-Deepwater Gunahsli was also inspected internally using a large surface inspection (LSI) automated scanner, which is the most up-to-date non-intrusive technology able to map corrosion activity. The LSI uses ultrasonic wall thickness whereby a transducer is linked to a computer to record thickness data for predetermined measurement positions. This enables accurate monitoring and calculation of corrosion rates.

Storage tanks also require regular inspection to ensure any deterioration is detected at an early stage. Internal visual inspection usually is combined with magnetic flux leakage floor inspection and mapping. In 2012, Sangachal terminal early oil project crude oil storage tanks C and D underwent extensive maintenance and inspection. Both tanks were taken offline, cleaned of residual oil and inspected internally. Welding repairs were performed, new internal coating applied and sacrificial anodes installed to prolong the life of the tanks.

#### Corrosion and production chemistry

Corrosion and production chemistry activities were executed successfully on corrosion, production chemistry, fabric maintenance and cathodic protection areas.

Corrosion control sampling is carried out at Sangachal terminal and on the export pipelines on a routine basis. This includes, but is not limited to, annual bacterial surveys, pig trash samplings, entry specifications for the pipelines and various other operational-related chemical activities.



Through this inspection and sampling regime key performance indicators are set for the system and monitored on a routine basis and reported on a monthly basis.

In other developments various chemical trials and value creation projects, such as scale inhibition for Azeri-Chirag-Deepwater Gunashli, were carried out with the chemical company Nalco to improve operational efficiency and production effectiveness and to reduce risk and minimize cost impact.

Various underground piping cathodic protection upgrade projects were carried out at Sangachal terminal. Routine monitoring and maintenance of the cathodic protection system were also undertaken. A remote monitoring system was introduced into the pipeline structure and is currently being completed. In addition, all the underground facilities, pipelines and piping at Sangachal terminal were surveyed and improvement projects identified. These are being implemented in 2013.

#### Onshore pipeline integrity

The midstream onshore pipeline system covers 3,000km of pipelines in Azerbaijan, Georgia and Turkey and three different pipeline systems – Baku-Tbilisi-Ceyhan (BTC), South Caucasus Pipeline (SCP) and Western Route Export Pipeline (WREP).

All our pipelines are inspected at least once every two years with some sections of the WREP inspected on a six-monthly basis to check for illegal hot taps. Sections of the BTC and SCP routes are also inspected to check for movement at potential landslide locations.

To conduct these checks the Azerbaijan-Georgia-Turkey region has uses a number of in-line inspections technology. Among them are the caliper geometry inspection tool, axial flux, ultrasonic wall measuring, ultrasonic crack detection, cathodic protection current tool, electromagnet acoustic transmission tool, leak detection tool and XYZ mapping.

In 2013, we will be trialing other technologies such as the magnet memory method to give an initial integrity assessment of difficult to inspect lines. We also hope to try out a river scan technique that gathers data automatically. The objective is to collect data at the height of the flood season when the risk of exposure and rupture to pipelines that cross rivers is at its greatest.

#### Offshore

Detailed analysis and inspections of Shah Deniz have allowed us to validate the weight loading position of the platform and the potential for future well development. Further advanced analysis will be undertaken in 2013 to continue developments on the platform.

We have also completed a risk-based assessment of main hydrocarbon vessels on all six of our offshore platforms and supported baseline work being done for West Chirag in its pre-operation phase. The outcome of the assessment has set the inspection schedule for years to come.

During the year, we also completed our inspection of the Deepwater Gunashli platform. A number of inspections covering the pipe – flange face and vessel integrity – were undertaken and provided positive feedback.

Maintenance programmes were completed on all platforms in partnership with our suppliers. For example, we completed work on the Central

Azeri platform to reduce an opening between the deck structure and sea level. This programme will continue in 2013 as part of our commitment to prolong the life of the field.

In July 2012, during a routine test it was noted that several cables were damaged in the offshore pipeline corridor between Sangachal terminal and the Deepwater Gunashli platform. It was determined that a third-party vessel had dropped and dragged its anchor over the area. Relevant measures were taken to ensure subsea pipelines integrity including co-operation with the Ministry of Emergency Situations and other related state agencies to establish an effective system for monitoring.

#### Marine operations

The marine operations team played an important role in supporting our operations in Azerbaijan in 2012 in what proved to be a busy but productive year. Work included normal fleet operations, rig moves, marine assurance responsibilities, emergency response and security-related duties and offshore supply commitments.

A new guard vessel strategy was developed and introduced to widen the pipeline surveillance area. Six rig moves were completed to international standards without any recordable injuries.

To support the growth in our marine operations two new anchor-handling vessels, *Caspian Challenger* and *Caspian Endeavour* were received as well as one new platform supply vessel, *Caspian Supporter*. The new vessels significantly enhanced our capabilities due to their power and size. *Endeavour* and *Challenger* are the largest ships to be transhipped through the Russian canal system for BP in Azerbaijan.



Supply vessel at East Azeri platform.



Our incident management team during the Khazar 3 exercise.





## Sharpening our emergency preparedness

In October 2012, we executed Exercise Khazar 3, which simulated a third-party supply vessel accident near the Azeri platforms, personnel evacuation and oil spill response and involved BP's emergency response and rescue vessel. The purpose of the exercise was to test the ability of BP's various departments to work together under high pressure of time and an escalating crisis.

Oleg Reschikov, midstream health and safety director, specifically stressed two things: "Firstly, it was a successful trial of Tactical Collaboration Management system (TCMS) software and hardware. TCMS is a part of Major Accident Risk programme and allows transferring live images from offshore in real time format to Incident Management Centre. Secondly, BP group crisis and continuity management team from UK was for the first time involved into the exercise through communications with the BP AGT president."

The exercise also involved government observers from a number of state agencies, including Ministry of Emergency Situations (MES), Azerbaijan State Marine Administration (ASMA), the Navy and the Border Troops. "We were impressed by BP's existent mechanism for dealing with emergencies," says Arif Mazanov, deputy director ASMA. "Everyone in the team knows what they are doing and the co-ordination is seamless."

According to Ilgar Hasanov, senior adviser, MES infrastructure development department, the exercise also showed areas for improvement in the joint activities among BP and various state agencies. "The great thing about the exercise is that it helped us all see what could go wrong in a real situation and what we should do today to avoid such occurrences in the future."

Due to this increased activity a cargo vessel was modified to act as a temporary accommodation vessel to house additional personnel. This facility worked extensively at Chirag. We also supported the global projects organization during the West Chirag pipe lay campaign with crew transfers and anchor handling vessels.

## Emergency response

In 2011, we reviewed our crisis and continuity management and emergency response arrangements in the BP AGT. This included a business impact analysis for production operations. Following this review we established a recovery time profile and create a plan to bring production back on line after a significant interruption.

In 2012, we updated the recovery time profile and business continuity strategy for production operations. We also added a subsea continuity strategy framework and overhauled the business impact analyses data.

Our 'working remotely' capability in Azerbaijan was tested in real time in May as was our crisis response at senior regional leadership level in conjunction with BP group headquarters in London. In December 2012, senior leaders in the BP AGT were also given an opportunity in conjunction with the BP group headquarters to practice how they would respond to a civil crisis event.

Globally, BP introduced new standards for two group-defined practices – crisis and continuity management and oil spill preparedness and response. The new requirements are designed to assist the organization in responding to and managing emergency events, in addition to continually improving our capacity to respond in the event of an emergency. By implementing them clearer, more consistent accountabilities will be set for all aspects of crisis and continuity management and planning and, it is hoped, risk will be mitigated.

In 2012, operations and wells completed their assessments against the oil spill preparedness and response standard. Subsequently multifunctional team worked collaboratively with the front line to complete the assessment, and resulting actions will be implemented in 2013 to ensure full conformance by the end of 2013. Full conformance of the oil spill preparedness and response standard will be achieved in 2014.

In conjunction with these developments the operations and wells offshore health, safety and emergency response simulator specialist used the integrated control safety system in 2012 to create simulated emergency response events. These can be used by the platform personnel to improve their overall response capabilities. Software models were produced representing the process control and automated safety systems for Central Azeri, West Azeri, East Azeri, Deepwater Gunashli and Shah Deniz platforms. The models can be applied to other areas including offshore weekly exercises for the facility incident management team, technician training for orientation at a new facility, and specialized critical operation simulation competency gaps can be identified in this way most efficiently, and plans put in place to bridge any knowledge/training issues.

## Working with partners and contractors

Our contractor management programme is related closely to BP's group-wide operating management system. Responsibility rests with both procurement and supply chain management and safety and operational risk regional functions, supported by the BP group leadership team.

Since the early stages of contractor management, its development has focused on continuous improvement.

During the year, working under the umbrella of contractor management, a gap assessment was conducted. The comprehensive procedural findings were then fed up through to organization to the regional leadership team for review. The findings were grouped in by people, processes, products and systems and the gaps were ranked in order of severity. People and process gaps during actual job execution were found to have higher severity gaps as compared to systems and processes, which tended to have gaps of lower significance in the areas of formal health, safety, security and environment verification, start-up documentation, key documents not housed in a central location and inconsistent use of established tools to assist in contractor management.

Throughout the year, in line with the BP group 'One Team' management concept contractor management training was provided to regional teams. A contractor health, safety and environment (HSE) management system audit checklist was also drawn up and implemented. Sixteen contractor HSE audits were conducted and a contractor safety improvement plan guide devised and put into effect.

# Health

In 2012, we continued to run a series of interactive health campaigns and improvement initiatives.



Employees taking part at the 'Heart Day' campaign.



In September 2012, 33 BP health, safety and emergency response professionals underwent training on major incident medical management and support, based on standard international mass casualty management processes from the UK, Germany and Sweden. Held over a four day period and run by medical provider representatives, the course provided participants with a global medical management model for use during major incidents. It covered topics such as understanding the roles of the medical and emergency services, treatment, transport and medical equipment. Strategies for handling major incidents were illustrated by real life examples, table top and practical exercises.

Following health impact assessment (HIA)<sup>a</sup> and training in 2011, another Desktop Appraisal HIA was held in the Azerbaijan-Georgia-Turkey region in 2012. This HIA is linked to the projected expansion of the South Caucasus Pipeline as part of the Shah Deniz Stage 2 project. Both assessments involved a team of occupational and public health experts who researched and analysed health data in the country and locally in the vicinity of the project.

The aim of the 2012 HIA was to provide an evaluation of the possible impacts of the project on the health of local inhabitants and so help us identify, manage and mitigate them. Once the analysis is completed, formal health mitigation plans will be defined in a health mitigation plan/commitments register with findings and mitigations from the environmental and social impact assessment for the same project.

In 2012, we also expanded our office ergonomics pilot project with the introduction of Remedy tools. Remedy Interactive is a suite of software tools that can help to reduce the risk of work-related upper limb disorders.

In September 2012, we held a heart health campaign 'Heart Day' as part of a BP group-wide initiative. Employees were provided with basic information to manage the health of their hearts and completed a lifestyle and statistical assessment that can be used year-on-year to compare results. In total, 577 people took part in the campaign.

We also completed implementation of a hand arm vibration programme, which began in 2011. During 2012, it was fully implemented for offshore and wells. Upgrade, review and evaluation of the process will be ongoing in order to maintain its sustainability.

Fatigue management programmes (FMP) have been introduced within BP businesses to identify and address the fatigue risk to which operational staff is exposed. FMP is a scientifically based, data-driven programme used to continuously monitor and manage fatigue risk that is closely linked to an entity's local operating management system.

In 2012, 21 health and safety professionals took part in Fatigue Champion training. This course provides an overview of the BP group recommended practice on fatigue management, the science of sleep and circadian rhythms and how fatigue impacts safety. The course also introduces BP's online Fatigue Awareness and Countermeasures Training and the content of the BP fatigue 'toolkit'. Following the training, fatigue risk assessment was completed at a number of sites of the Azerbaijan-Georgia-Turkey region.

<sup>a</sup>HIA is a means of assessing the health impacts of policies, plans and projects in diverse economic sectors using quantitative, qualitative and participatory techniques.

# Environment

We respect and value the responsibility we have to produce energy in the most responsible way possible, while minimizing impacts to people, communities and the environment.

## Our goals

Environmental monitoring helps us to understand the impacts of our emissions and discharges on the environment.

During the year, we continued to reduce flaring by implementing a 'flaring policy' including specific measures and projects.

## In this section

### ISO 14001

certification of our environmental management system extended until 2015.



### 19%

decrease in total volume of hydrocarbons flared compared to 2011.



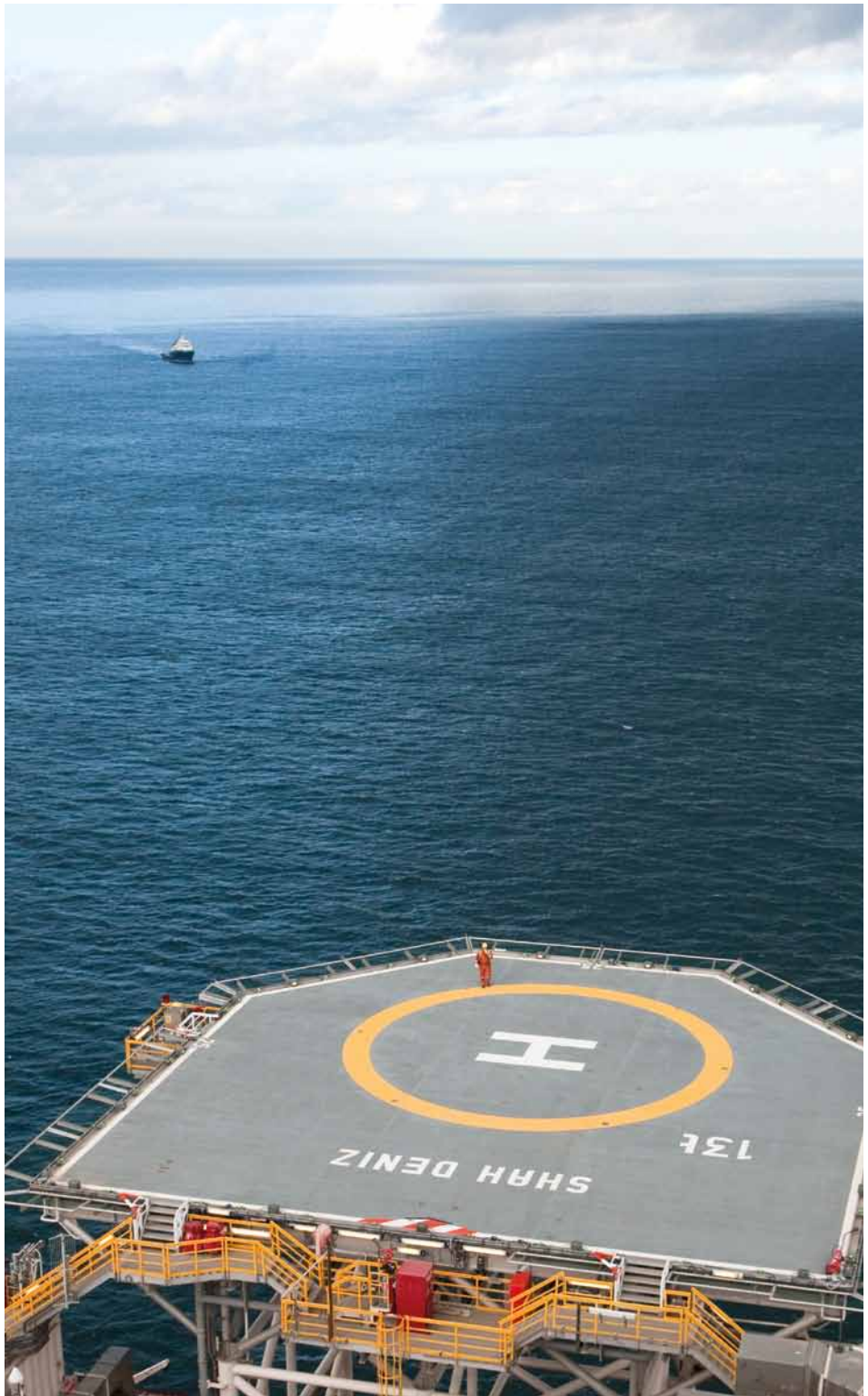
### 19

ambient environmental monitoring surveys carried out in 2012.



### Shah Deniz platform

We finalized a series of environmental baseline studies for the Shah Deniz Stage 2 project.



# Environmental management

We manage environmental issues and address our impact on the environment throughout the lifecycle of our projects and operations.

## Azer Aliyev Head of Environment Department, SOCAR

We believe that our co-operation with BP in the field of environmental protection helps to achieve sustainable positive results. The joint workshop on managing environmental risks, held in October 2012 in Eco-Park, is an example for this co-operation. During this event, SOCAR and BP specialists shared their experience and exchanged ideas on joint oil spill response and co-ordination of preventive measures.



BP in Azerbaijan implements a rigorous environmental management system (EMS), which is based on the ISO 14001:2004 standard. The EMS ensures that we minimize our impacts on the environment and comply with applicable and relevant local and international laws, conventions and regulations. We manage activities that have potential environmental impacts using carefully defined procedures, and provide assurance that these activities are being carried out in the defined manner using both external and internal audits, regular inspections, and ad hoc reviews of existing processes. We monitor our outputs to the environment, both intentional and unintentional, and have in place a comprehensive ambient environmental monitoring programme to identify potential environmental impacts so that we can mitigate, minimize and manage these impacts wherever possible.

Our environmental monitoring efforts focus on understanding two separate aspects of our activities – what are our environmental outputs, also known as ‘operations monitoring’, which aims to quantify our outputs (e.g. greenhouse gas emissions, liquid discharges) to the environment by sampling discharges and emissions emanating from our sites due to our activities; and ‘ambient monitoring’ which aims to quantify and understand the impacts of our emissions and discharges on the environment (humans, animals, air, plants, soil and water). In order to do this in an appropriate manner prior to the projects commencing we conduct an environmental baseline study and assess potential impacts to the environment through the development of environmental impact assessments (EIA). By conducting ‘ambient monitoring’ against the baseline we compare subsequent outputs and impacts when projects become operational.

Finally, we engage with the Ministry of Ecology and Natural Resources and the State Oil Company of Azerbaijan Republic (SOCAR), as well as Azeri-Chirag-Deepwater Gunashli and Shah Deniz production sharing agreement Environmental Sub-Committee comprised MENR, SOCAR, Gipromorneftegaz and Azerbaijan National Academy of Sciences to keep them informed of our activities, which ensures independent oversight and support when necessary to ensure that we operate to the highest environmental standards.

### ISO 14001 certification

In Azerbaijan, BP operations EMS was certified to the ISO 14001:2004 standard in 2000, and by 2012 coverage extended to 17 sites and areas of operations.

Although the ISO 14001 certificate is issued for a three-year period, maintenance of the certificate

also requires twice-yearly surveillance audits by an external auditor from the certifying authority – and during the three-year recertification period each certified site must undergo at least one surveillance audit. The May 2012 surveillance audit covered the Deepwater Gunashli platform, the supply base of Baku Deepwater Jacket Factory, the central waste accumulation area at Sangachal terminal, and the Azerbaijani sections of the Western Route Export Pipeline (WREP), Baku-Tbilisi-Ceyhan (BTC) and South Caucasus Pipeline (SCP).

As the current ISO 14001:2004 certification expired in November 2012, the fourth recertification audit was conducted by Intertek-Moody International in October 2012. The audit did not identify any significant breaches of the environmental management system (EMS), and findings from earlier audits had been effectively addressed through appropriate corrective actions – resulting in a finding that the BP AGT operations (offshore and onshore) continued to maintain an effective EMS. Therefore, in November 2012, the ISO 14001:2004 certification was extended for a further three years, until 2015. The new ISO 14001 certificate was issued on 11 January 2013.

### Co-operation

BP and SOCAR continued to co-operate on environmental issues during 2012. Special emphasis was placed on sharing best practice in Risk management and Oil Spill Response Preparedness (OSRP). More than 30 employees from 19 divisions of SOCAR participated at a joint workshop on Risk Management and OSRP process in October 2012. The workshop was aimed at familiarizing both sides with current risks and associated environmental impacts assessments process, as well as OSRP of BP and SOCAR.

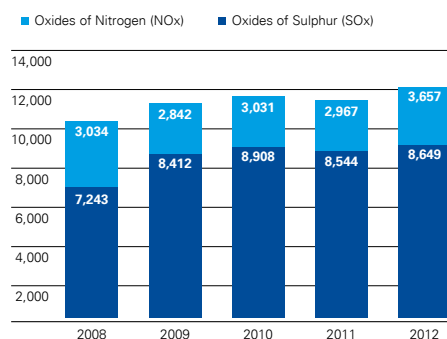
Representatives from the Ministry of Ecology and Natural Resources and the Ministry of Emergency Services attended an Oil Spill Contingency and Response modelling tool training that was arranged by BP.

### Sharing our experience

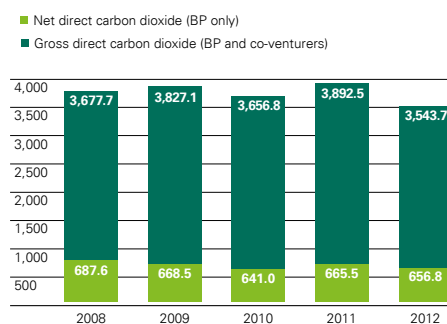
We participated at the Caspian: Technologies for Environment international exhibition on 21-23 November 2012 with a display and personnel on hand to discuss technologies of cuttings re-injection wells, indirect thermal desorption, produced water long-term management plan for minimizing discharges of drill cuttings and produced water to environment. We also provided sessions on environmental monitoring management and OSRP, and distributed the BP AGT environmental information to the public.

# Environmental outputs

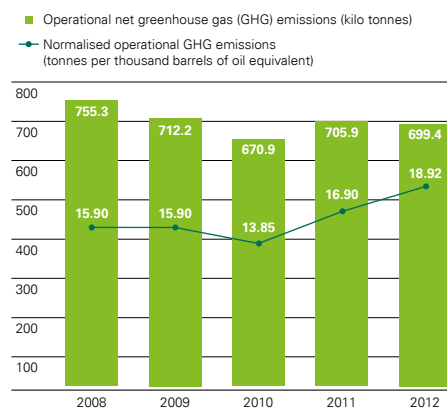
## BP in Azerbaijan gross non-GHG emissions<sup>a</sup> – SO<sub>x</sub> and NO<sub>x</sub> (tonnes)



## BP in Azerbaijan direct CO<sub>2</sub> emissions (kilo tonnes)



## BP in Azerbaijan net GHG emissions



<sup>a</sup> Sharp increase in SO<sub>x</sub> emissions in 2012 is mainly attributed to more intense logistics operations. NO<sub>x</sub> numbers are broadly in line with the amount of gas flared and used for fuel.

## Greenhouse gases

We used less fuel gas and there was less flaring in our operations in 2012 than in 2011 – resulting in net greenhouse gas (GHG) emissions of 699.4 kilo tonnes - marginally lower (0.9%) than in 2011. Greenhouse gas emissions in our operations stem from the burning of fossil fuels in various internal combustion engines, heaters, and flaring of unrecoverable gas. The decrease in total greenhouse gas emissions was achieved despite:

- GHG emissions from the Dada Gorgud drilling rig increased since it resumed operations following its five-yearly recertification and upgrade in second quarter of 2011.
- There was an increase in GHG emissions from diesel consumption, directly attributable to an increase in diesel consumption (see 'Energy consumption' section on page 36).
- Chirag GHG emissions in 2012 increased due to elevated flaring (see 'Flaring' section on page 36).

## Emissions

Annual stack sampling was conducted on all engines larger than 500hp, and the results were assessed against the operating technical specifications provided by the manufacturer of the engines to ensure that our GHG calculations, which are based on fuel usage and the operating efficiency of the engines, are correct. Emissions were also reviewed against applicable standards where available or appropriate.



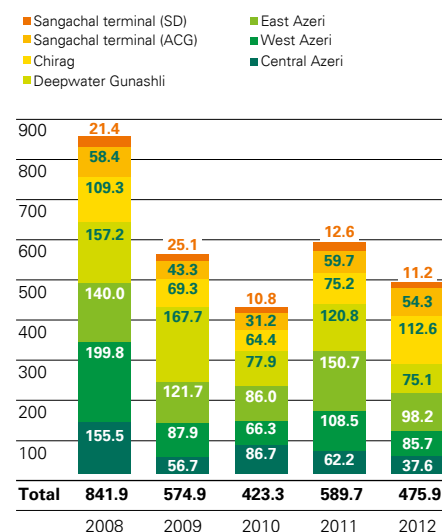
Environmental adviser registering emissions at Sangachal terminal.

While there appear to be no systematic deviations from manufacturer specifications in most areas, stack emissions at Azerbaijan Export Pipelines in 2012 has shown that NO<sub>x</sub> emissions continue to remain above the applicable standard. To address this issue, an offset programme to compensate for the exceeded NO<sub>x</sub> emissions is being implemented.

## BP in Azerbaijan net GHG emissions per asset (kilo tonnes)

Asset / Facility	2011	2012
Central Azeri	130.0	117.2
West Azeri	52.6	44.0
East Azeri	44.6	46.0
Chirag	36.6	54.3
Deepwater Gunashli	88.8	70.6
Shah Deniz	1.9	2.1
Istiglal rig	3.4	3.8
Dada Gorgud rig	2.0	3.6
Sangachal terminal (Azeri-Chirag-Deepwater Gunashli)	247.8	252.5
Sangachal terminal (Shah Deniz)	41.8	44.8
Baku-Tbilisi-Ceyhan pipeline in Azerbaijan	22.7	19.4
South-Caucasus Pipeline in Azerbaijan	0.2	0.2
Western Route Export Pipeline in Azerbaijan	4.0	4.3
Logistics	28.1	34.4
Waste management sites	1.7	2.2

## BP in Azerbaijan gross flaring by asset (kilo tonnes)



The following flaring data has been omitted, since they are off the scale: 3.1kte in 2009 and 1.1kte in 2012 at Istiglal rig, 0.1kte in 2008 at Dada Gorgud rig. There is no flaring on Shah Deniz platform.

## Flaring

Normal hydrocarbon operations assume the following flaring categories:

- Routine and background – purging of equipment during maintenance and repair, malfunctioning non-critical equipment awaiting planned repair.
- Unplanned flaring – initiated for safety reasons due to plant / equipment operation upsets.
- Planned flaring – required for safe and reliable execution of activities planned in advance, including well tests, plant / equipment maintenance, start-up.

In 2012, about 475.9 kilo tonnes of hydrocarbons were flared from our operations in Azerbaijan – a decrease of 19% compared with 2011. During the year, we continued to reduce flaring by implementing specific measures and projects such as:

- Gas-oil ratio management that is aimed at minimizing excessive gas on surface optimized with maximized oil production.
- Expeditious identification of root causes and subsequent elimination of defects on malfunctioning equipment.
- Enhanced planning and co-ordination of activities that increase the risk of flaring.
- Improving operational efficiency of critical equipment through preventive maintenance.

By implementing measures such as improving the reliability of the flash gas compressors at offshore installations, replacing existing engines on gas injection compressors and a gas export compressor at Central Azeri compression and water injection platform with more reliable and higher capacity engines, repairing flare valve at Chirag, post-turnaround flaring minimization at Deepwater Gunashli, the overall level of flaring in 2012 compared to 2011 was reduced by 19%.

## Energy consumption

During 2012, we used 5% less fuel gas which, along with lower flaring, has contributed to lower overall greenhouse gas emissions in 2012. However, this was offset to some degree by an 18% increase in diesel usage. Most increases in diesel usage occurred at:

- Logistics – due to the use of more vessels/trips in 2012, resumption of drilling on Chirag during the fourth quarter of 2012, and the deployment of a new mobile offshore drilling unit, the Heydar Aliyev drilling rig.
- Dada Gorgud – where the rig was in operation throughout 2012, as opposed to 2011, when Dada Gorgud was at dock for its five-yearly re-certification.
- Deepwater Gunashli – due to turnaround activities – when the platform is shut-down, there is no fuel-gas produced and all essential services are power-supplied by the combustion of diesel only.

## Oil spills<sup>a</sup>

BP is a responsible operator in the Caspian and as such, takes concerns raised to the company seriously. In Azerbaijan, we have agreed procedures in place, which regulate our reporting to, and notification of, all relevant regulatory bodies including the Ministry of Ecology and Natural Resources, as well as the State Oil Company of Azerbaijan Republic. These include notifications on unplanned material releases (spills).

Twelve oil spills (unintentional discharges) were recorded by BP in Azerbaijan in 2012. Eight of these spills were fully contained and did not reach the environment. Of the remaining four spills one was of crude oil (340 litres). The other three were discharges of non-water-based drilling mud (156,444 litres), comprised 50-75% oil. One of these unintentional releases happened in September 2012 when a failure occurred at the liner running tool during well cementing activities at the Central Azeri platform. The other two mud spills were insignificant since they made only 2% of all drilling mud volumes unintentionally released in 2012.

## BP in Azerbaijan energy consumption

	2011	2012
Fuel gas (kilo tonnes)	832.0	<b>788.0</b>
Diesel (kilo tonnes)	49.0	<b>57.9</b>
Electricity import (megawatt hours)	7,303.0 <sup>b</sup>	<b>8,199.0<sup>c</sup></b>

<sup>a</sup>Oil spills are defined as any liquid hydrocarbon release to secondary containment or to open environment of more than or equal to one barrel (159 litres, equivalent to 42 US gallons).

<sup>b</sup>Instead of 8,085 reported in *BP in Azerbaijan Sustainability Report 2011*.

<sup>c</sup>Increase in import in 2012 against 2011 is explained by less power generation at Sangachal terminal.

# Waste management

We aim to avoid, reduce and reuse the waste that is created by our operations and implement a lifecycle approach to waste management.



Industrial waste utilization site in Garadagh district.

## Drill cuttings

Because they are not toxic, water-based drill cuttings (a mixture of crushed rock and water-based drilling fluids recovered from well drilling activities) are discharged to the Caspian Sea. However, the drill cuttings with potentially toxic synthetic oil-based mud (SBM) are either re-injected into suitable geological formations offshore or are shipped to shore for treatment and disposal. Offshore re-injection is routinely used for drill cuttings from the Azeri and Deepwater Gunashli platforms, but Chirag, Shah Deniz, and the mobile offshore drilling rigs are unable to re-inject cuttings, which are therefore routinely shipped to shore for treatment, recovery (some base oil may be recovered and reused) and disposal.<sup>a</sup>

In 2012, BP in Azerbaijan discharged 32,920 tonnes of drill cuttings and associated fluids (adhered water-based drill mud or WBM), into the Caspian. These discharges complied with the Azeri-Chirag-Deepwater Gunashli production sharing agreement. The two-fold increase in discharges compared to 2011 was largely due to drilling activities at Shah Deniz Stage 2 performed by the Istigal drilling rig.

## BP in Azerbaijan drill cuttings discharged to water (tonnes)

Asset / Facility	Drill cuttings with WBM	Drill cuttings with SBM	Total drill cuttings
Central Azeri	10,452	0	10,452
West Azeri	1,078	0	1,078
East Azeri	74	0	74
Chirag, Deepwater Gunashli and Shah Deniz	0	0	0
Dada Gorgud drilling rig	3,756	0	3,756
Istigal drilling rig	17,560	0	17,560
<b>Total</b>	<b>32,920</b>	<b>0</b>	<b>32,920</b>

## BP in Azerbaijan generated waste quantities (tonnes)

	2011	2012
Hazardous waste (excluding sewage) <sup>b</sup>	40,672	<b>73,001<sup>c</sup></b>
Non-hazardous waste	10,533	<b>19,932</b>
Produced water	1,632,353	<b>2,617,897</b>
Raw sewage <sup>d</sup>	51,762 <sup>e</sup>	<b>45,434</b>

<sup>a</sup> Chirag platform has regulatory permission to dispose drilled cuttings (with synthetic oil based muds) into the Caspian, but it did not carry out drilling during 2012.

<sup>b</sup> Includes drill cuttings and produced water filtration wastes.

<sup>c</sup> Excluding externally disposed raw sewage.

<sup>d</sup> Represents all sewage from facilities without on-site STP's or with insufficient capacity to treat sewage on-site – sewage is therefore sent to a municipal sewage treatment plant.

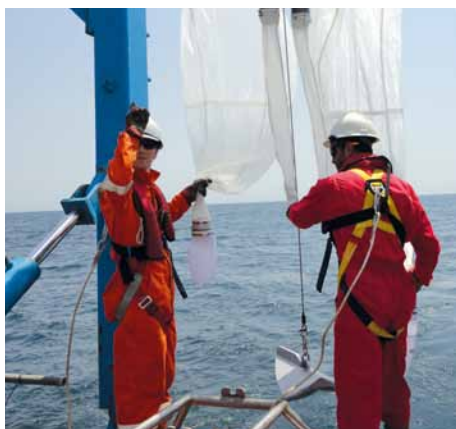
<sup>e</sup> Instead of 260,667 tonnes reported in *BP in Azerbaijan Sustainability Report 2011*. This number includes only sewage transported to municipal STPs for the treatment.

A total of 68,254 tonnes of waste were re-injected from the Azeri and Deepwater Gunashli platforms in 2012, which represented a 6% decrease from 2011.

## Waste management

In 2012, a total of 138,367 tonnes of solid and liquid waste were produced during our operations in Azerbaijan of which 118,435 tonnes were hazardous waste (including sewage), and 19,932 tonnes were non-hazardous waste. This represents a 28% increase in hazardous waste volumes compared to 2011, largely due to increased drilling activities; and an 89% increase in non-hazardous waste volumes compared to 2011 largely due to the initiation of new projects (e.g. Shah Deniz Stage 2).

Some non-hazardous waste (5,793 tonnes – 29%) and some hazardous waste (3,923 tonnes – 3.3%) were recycled or reused by local companies. The remaining wastes were either treated and disposed by BP approved waste disposal contractors using approved methods and routes, sent to a regulator-approved non-hazardous waste landfill at Sumgayit, or stored temporarily at Serenja hazardous waste management facility (HWMF) pending access to a suitable hazardous waste landfill that currently is being negotiated.



Collecting samples during offshore environmental survey.

In addition to 2012 non-hazardous waste 4,080 tonnes of drill cuttings were landfilled in non-hazardous waste landfill.

Approximately 35,611 tonnes of drill cuttings from offshore were processed at Serenja hazardous waste management facility using indirect thermal desorption, yielding 3,751 tonnes of recovered base oil for re-use and mostly hazardous solids that were stored at Serenja hazardous waste management facility as indicated above.

### Sewage

We are evaluating potential future investments in new technologies that have an effect on how we use water in our processes and how we treat wastewaters. In 2012, we continued to make improvements to our onshore sewage treatment facilities including commissioning another bioreactor, the seventh, at Sangachal terminal. In August 2012, Sangachal terminal implemented the required safeguards to ensure there were no human health implications, and began reusing treated sewage water (tested to ensure it meets applicable purity standards) to irrigate ornamental plantings around the terminal grounds.

At the export pipelines, most of the on-site sewage treatment plants worked efficiently and reliably throughout the year – an investigation is ongoing on the high levels of coliform bacteria (exceeding applicable standards) that have been detected in samples taken from the final polishing reed beds immediately after first rain. Since samples of water entering the reed beds from the sewage treatment plant do not contain high levels of fecal coliforms the sewage treatment plant is considered to be functioning as designed.

Sewage from the marine supply vessels and facilities continue to be collected by vacuum truck and taken off-site for disposal at Hovsan municipal sewage treatment plant.

There has been a 12% decrease in raw sewage sent for treatment to the municipal sewage treatment plant in 2012 from all facilities, primarily due to Sangachal improvements.

Offshore, treated sewage water discharge standards, such as the levels of total suspended solid (TSS) and biological oxygen demand (BOD5) on the Chirag platform, as well as total suspended Solids, faecal coliforms and BOD5 on Shah Deniz platform were occasionally exceeded.

There were 44 offshore sewage treatment plant outages in 2012 versus 17 in 2011. As a result 386,430 litres of untreated sanitary water was released into the Caspian. To address this increase, BP in Azerbaijan initiated a programme to replace existing sewage treatment plant units with new units based on a membrane-bioreactor-type technology sewage treatment plant unit that is more suited to in the low-salinity Caspian Sea environment, requires less maintenance, and is less susceptible to failure. This new unit is expected to be commissioned on the Deepwater Gunashli platform by the end of 2013 or early 2014, with the Azeri platform sewage treatment plants to be replaced in 2014. This action is expected to result in fewer sewage treatment plant outages and improved performance against discharge specifications.

### Produced water

A total of 2,617,897 tonnes of produced water were separated from the oil and gas streams at Sangachal terminal in 2012 – 2,594,467 tonnes from Azeri-Chirag-Gunashli and 23,430 tonnes from Shah Deniz offshore areas. This represented a 60% increase over the produced water generated in 2011 and was in line with the predicted produced water profile. This is based on an increase in the Azeri-Chirag-Gunashli ratio of produced water flow to the terminal.

Azeri-Chirag-Gunashli produced water was treated at the terminal's produced water treatment plant and exported back to offshore for re-injection via the Azeri platforms. In 2012, we achieved a 95.5% (2,476,721 tonnes) re-injection rate for Azeri-Chirag-Gunashli produced water. 117,746 tonnes of produced water were discharged into the Caspian Sea. The majority of produced water was released at East Azeri platform due to diverter valve leakages. All discharges of produced water commingled with Caspian Sea water took place through subsea caissons at depths below 40m.

Produced water from Shah Deniz is stored in holding ponds at Sangachal terminal.



# Ambient environmental monitoring

Our ambient monitoring focuses on the status of the surrounding environment in the vicinity of our facilities and helps us to understand the impacts of our operations.

## Summary of offshore and nearshore ambient environmental survey results, 2011

Offshore	
Shah Deniz contract area – regional survey	The range in concentrations and spatial distribution for all measured parameters was very similar to previous years with no apparent region-wide or localized changes.
Shah Deniz Alpha platform environmental monitoring survey	The concentration and spatial distribution of measured parameters are very similar to those recorded during the previous survey in 2009. The only exception is a slightly higher concentration of barium (Ba) at stations located directly to the south and east of the platform. The Ba concentrations at these positions were similar to the results observed in 2007.
West Azeri platform environmental monitoring survey	The concentration and spatial distribution of measured parameters are very similar to those recorded in 2009. Sediment barium was recorded at elevated concentrations close to the platform. The Ba concentrations at these positions were similar to the results observed in 2009.
Deepwater Gunashli (DWG) platform environmental monitoring survey	The characteristics and concentration of metals and hydrocarbon parameters, and the physical characteristics of sediments in 2011 samples were similar to those observed in 2009. There is no evidence to suggest that operations at DWG are having a negative effect on the sediment physicochemical characteristics or the macrobenthic community of the surrounding area.
Shah Deniz Stage 2 (SD2) Shah Deniz Bravo environmental baseline survey	The environment around the planned SD2 Bravo platform location was found to be homogeneous in physical and chemical characteristics. The survey area supported an abundant and taxonomically rich macrofaunal community, with amphipod crustaceans the dominant taxonomic group. There was no evidence of contamination or of disturbance, and the environment is very similar to that observed over several years at adjacent regional station SDR26.
Shah Deniz Stage 2 East North manifold environmental baseline survey	The environment around the planned SD2 East North manifold location was found to be homogeneous in physical, chemical and biological characteristics. There was no evidence of contamination or of disturbance relating to oilfield activities, and the environment is very similar to that observed over several years at adjacent regional stations SDR31 and SDR32.
Shah Deniz Stage 2 East South manifold environmental baseline survey	The planned SD2 east-south manifold position lies 40m from the existing SDX5 well site at a depth of ~500m. The physical and chemical characteristics of the sediments at the majority of stations around the SD2 east-south position were typical of the surrounding area. However, higher hydrocarbon concentrations and the presence of linear alpha olefin and water-based mud were detected at stations directly adjacent to the SDX5 well site. These features are the result of drilling discharges carried out during SDX5 drilling operations in 2008.
Shah Deniz Stage 2 West manifold environmental baseline survey	The environment around the planned SD2 west manifold location was found to be homogeneous in physical, chemical and biological characteristics. There was some evidence of hydrocarbon contamination around one station. The cause of this is not apparent, and this was not reflected in the other chemical and biological parameters measured. Overall, the environment is very similar to that observed over several years at the nearby Shah Deniz regional station SDR30.
Shah Deniz Stage 2 West South manifold environmental baseline survey	The environment around the planned SD2 west-south manifold location is homogeneous in physical, chemical and biological characteristics. There is no evidence of contamination or of disturbance, and the environment is very similar to that observed over several years at the adjacent SD regional station SDR32.
Nearshore	
Shah Deniz Stage 2 Sangachal Bay survey	The Sangachal Bay SD2 survey area lies directly to the east of the existing Sangachal Bay survey area. The concentration of metals and hydrocarbon parameters, and the physical characteristics of sediments were very similar to those observed on previous Sangachal Bay monitoring surveys, as was the macrobenthic community structure.

The BP in Azerbaijan ambient environmental monitoring programme has been operating since 2004. The programme is designed to provide a systematic approach to ambient monitoring and the interpretation of results generated from the monitoring.

Ambient environmental monitoring surveys are carried out in the vicinity of both offshore and onshore facilities. In 2012, we carried out 19 environmental surveys - five offshore and 14 onshore. The results will be released in 2013. At the end of 2012, a total of 132 monitoring studies had been completed over nine years.

### Offshore surveys

Seabed monitoring was conducted in the vicinity of the Chirag, East Azeri and Central Azeri offshore platforms to assess the impact of production operations. A survey was also carried out along the Azeri-Chirag-Deepwater Gunashli – Sangachal subsea pipeline route. In addition to these facility-based surveys, a regional survey was undertaken to help us understand what, if any, natural changes have taken place in the marine environment. Sampling was carried out at locations some distance from our activities (and third-party operations) in the vicinity of the Azeri-Chirag-Deepwater Gunashli contract area. This involved physical and chemical sampling of the seabed and water column and faunal sampling of the benthic and planktonic populations. However, because of the large number of samples and the number of factors analysed for each sample there is an up to two-year lag-period between conducting a survey and producing interpretive reports on the surveys. Therefore, only the 2011 survey results are summarized in this report.



### Lessons learned: using plants instead of seeds for site restoration

In the past, it was common practice that vegetation restoration along the BTC right-of-way and areas prone to erosion was carried out by placing seeds into the ground and leaving them to grow. However, experience has shown that survival rates are very low (typically 5-10%). A trial, which involved bedding live plants into the ground from the nursery resulted in a much higher success rate (approximately 47%). Therefore this practice will be used for future site restoration/erosion prevention activities along Azerbaijan pipelines.

### Onshore surveys

Ambient air quality monitoring was conducted at Sangachal terminal, Serenja hazardous waste management facility (HWMF), and at pump station 2 (PSA2) along the Baku-Tbilisi-Ceyhan (BTC) in Azerbaijan. Quarterly air quality monitoring at Sangachal terminal during 2012 showed that the monitored parameters Nitrogen monoxide (NO), Nitrogen dioxide (NO<sub>2</sub>), Sulphur dioxide (SO<sub>2</sub>) measured concentrations were considerably below national air quality standards; Benzene and total volatile organic compounds (TVOC) concentrations were below relevant air quality standards at all monitoring locations.

High particulate matter (PM<sub>10</sub>) concentrations encountered at Serenja HWMF during the 2011 monitoring were absent in 2012 – supporting the contention that these high values are transient, and are caused by wind generated dust from the surrounding desert areas and are not due to operations at Serenja HWMF. NO, NO<sub>2</sub>, SO<sub>2</sub> measured concentrations were considerably below national air quality standards, and Benzene and TVOC concentrations were below the long-term (annual average) air quality standards at all monitoring locations.

Ambient air quality monitoring at the BTC pump station at PSA 2 showed that the measured parameter (NO<sub>2</sub>) was within the regulator-approved limit values.

Surface and groundwater quality surveys (semi-annual and monthly borehole monitoring) conducted in 2011 at Serenja HWMF showed that groundwater depth and flow direction was relatively consistent throughout time. There were no elevated levels of BTEX<sup>a</sup>, polyaromatic hydrocarbons or phenols, but there were somewhat elevated levels of ammonia, phosphorus, nitrite and some metals (arsenic, cadmium, iron, mercury, nickel and zinc) down-slope of operations site. The only known potential source of ammonia in this area is the bioremediation area at the Serenja HWMF, but there is currently no obvious receptor (i.e. surface water) for these elevated components to impact.

In 2012, surface and groundwater monitoring was carried out along the BTC pipeline in May and November. Groundwater samples were taken from five monitoring wells at the Karayazi aquifer, and surface water samples were taken from upstream and downstream locations at intermediate pigging station IPA 1 and PSA 2. All results were in-line with pre-project baseline conditions indicating that there was no contamination of these water resources.

During 2012, two BTC groundwater monitoring wells were damaged due to third-party damage. Replacement wells will be installed in 2013.

In 2011, 88 species of birds were observed during bird surveys around Sangachal terminal. Of these, 23 species were species that are normally resident in the area during the entire year and 65 were migrant species. Areas to the south and south-east of Sangachal terminal have the greatest richness in bird species, largely due to the variety of habitats that include desert and mesic areas consisting of shrubs, reedbeds, shallow open swamps/ponds, streams, and short trees. It is appropriate to note that there appears to have been some decrease in species richness in the areas to the East, North, and West of Sangachal terminal, probably due to adverse impacts on bird habitats from largely non-BP (construction) activities. The vicinity of Sangachal terminal is home to two amphibian species, 11 species of reptiles, and 10 species of mammals. However, there are signs that the soil excavations and other anthropogenic activities (mostly non-BP) in the wetland areas to the east and south of Sangachal terminal may be causing some loss of habitat which could cause loss of biodiversity in the future.

Vegetation monitoring during 2009-11 has shown the presence of 18 perennial plant species in the vicinity of Sangachal terminal (six species belonging to the family *Amaranthaceae*, two *Fabaceae*, two *Poaceae*, two *Juncaceae*, two *Tamaricaceae*, and one each of *Asteraceae*, *Iridaceae*, *Solanaceae*, and *Chenopodiaceae* occur in the vicinity of Sangachal terminal. The species *Iris acutiloba* is listed in the Azerbaijan Red Book and was found in one monitoring site. *Salsola nodulosa* was found to be the dominant species at most sites, and *Suaeda dendroides*, *Poa bulbosa* and *Artemisia lerchiana* were also widely distributed due to their ability to survive in arid and semi-arid conditions.

<sup>a</sup>Benzene, Toluene, Ethyl Benzene and Xylene  
<sup>b</sup>Polyaromatic hydrocarbons



Various flora and fauna species are observed during onshore environmental monitoring.



While the areas approved for – and currently undergoing – construction are obviously and expectedly impacted by BP activities, there is no evidence to suggest that Sangachal terminal operations are having an adverse impact on the surrounding ambient environment.

Vegetation cover along the BTC/SCP indicates that for over 60% of the length of the pipeline right-of-way (RoW), vegetation cover has recovered to equal or greater than the adjacent, undisturbed areas. However, in general, the vegetation recovery along the RoW is following the expected pattern: vegetation cover establishes relatively quickly as species colonize the RoW, but this mostly comprises ruderal species that are not characteristic of the adjacent, undisturbed vegetation. There has been some recovery of the original species diversity, but the rate of recovery is slow – and therefore efforts to return all areas along the pipeline corridor to pre-construction conditions will continue.

Special attention was given to threatened/ endangered plants such as *Iris acutiloba*. We continue our earlier efforts to extract important species from the RoW prior to construction, maintain them at a remote location during pipeline construction and then restore the RoW using these plants and a second attempt was made to reintroduce *Iris acutiloba* to the RoW in 2010. The establishment success and survivorship of *Iris acutiloba* plants that were translocated from near the Garadagh cement plant to the RoW in late 2010 were monitored in April 2012, revealing that out of 11,718 individual plants translocated, 6,424 (54.8%) plants had survived – 15% more than were present in the 2011 survey – reflecting the rhizomatous nature of the plant which permits it to survive below ground and emerge when conditions are favourable.

### Noise monitoring

We conducted noise monitoring at several established locations at Sangachal terminal and along the pipelines. At Sangachal terminal, noise monitoring was conducted at the three settlements (Sangachal, Umid, and Azimkend) adjacent to the terminal and all results were within relevant standards.

Noise monitoring along the pipelines was conducted at pump stations at PSA2 and IPA1; BTC block valves at BV04; BV07; BV10; BV11; BV13; BV14, and along the WREP at PS5 and PS8. Monitoring has shown that the noise levels are in compliance with legal and BTC emissions management plan requirements.

### Caspian Environmental Programme

In November 2011, BP and its co-venturers signed a \$150,000 environmental agreement with Grid Arendal a Norwegian non-governmental organization and member of the United Nations Environment Programme, to establish a web-based Caspian Environmental Information Centre. The programme ended in December 2012.

### Look ahead: Oil spill sensitivity mapping

A project to refresh the existing oil spill sensitivity maps and extend the currently limited coverage to the entire coastline of Azerbaijan (from the border with Russia to the border with Iran) was initiated. This project will also extend the sensitivity mapping to onshore areas, particularly the pipeline routes within Azerbaijan and will significantly improve our ability to respond to potential oil spills both onshore and offshore.



Laboratory analysis of samples for environmental monitoring.

# Society

We seek to have a positive impact on society and the local economy and try to build sustainable and positive relationships with the communities in which we operate.

## Our goals

We aim to contribute to local communities by using local suppliers, enhancing infrastructure and building workforce capability.

Our joint programmes focus on community and local enterprise development, capability building and effective governance.

## In this section

\$1.6  
billion



spent jointly with our co-venturers for operations and projects in Azerbaijan.

99



communities across the country benefitted from our joint development initiatives.

34



students received scholarships funded by BP and its co-venturers in 2012.

### Karrar village, Kurdamir district

Community members successfully started their beekeeping business after receiving training and technical support.



# Good governance

The project aiming at enhancing economic planning capability of the Ministry of Economic Development concluded with a seminar, which brought together international consultants, specialists from the ministry and BP.

One of our global goals is to support revenue transparency initiatives and good governance projects as we believe this brings wide socio-economic benefits to the country.



## Dr Gubad Ibadoglu Management board member, Economic Research Center

We co-operated with BP within the framework of EITI implementation in Azerbaijan. Although in some cases it seemed more as a rival, in many cases BP turned out to be a good partner. Looking at the company's activities from the civil society's point of view, I can say that BP sets a leading example in transparency and accountability for other oil and gas companies in Azerbaijan.



BP has been a long-standing supporter of the Extractive Industries Transparency Initiative (EITI). Launched in 2003, it was designed to help create a voluntary, worldwide standardized process for the transparent reporting of company payments and government revenues in extractive industries including the hydrocarbon sector.

In Azerbaijan, BP has been working with government, civil society and other extractive industry companies within the framework of this initiative since its inception. We have played an active role in the local EITI process as member of the local multistakeholder steering group. In March 2012, BP in Azerbaijan submitted its EITI report covering the period January-December 2011.

We have been sharing our EITI experience with local and international audiences. BP representatives gave two presentations at an international training session organized by Eurasia Extractive Industries Knowledge Hub in April. One month later, we hosted a meeting of local and foreign companies who participate in the EITI process in Azerbaijan. In December, we co-organized a training session on EITI reporting in Baku.

We submitted our EITI report covering the 2012 reporting year in March 2013. We continue to disclose our disaggregated data in this report. The data from the latest submissions can be read on [page 51](#).

## Advisory Services on Macroeconomic Management and Institutional Reform

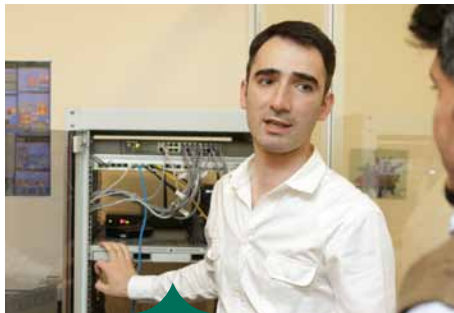
At the beginning of 2012, we completed our sponsorship project, which started in 2008 on Macroeconomic Management and Institutional Reform. The implementing partner – Center for Social and Economic Research (CASE) – worked with the Ministry of Economic Development (MED) to enhance its economic planning capability by improving forecasting and economic policy analysis skills. The value of the contract with CASE was \$1.25 million of which about \$150,170 was spent in 2012.

To conclude the project, a seminar was organized in January involving representatives of MED, BP and international consultants from CASE. It covered such topics as the economy of Azerbaijan in 2012-15; the country's medium-term growth potential; non-oil industry growth in Azerbaijan; determinants of inflation in Azerbaijan; global energy and economic trends and their possible impact on Azerbaijani economy; and long-term trends in global energy demand based on the *BP 2030 Energy Outlook*.

Sevinj Hasanova, a Deputy Minister at MED, summed up the project by saying that it had yielded a fruitful outcome. "Our macroeconomic forecasting model has been improved and models for sector-by-sector and inflation forecast have been designed."

# Enterprise development

BP supports the development of a thriving business sector in Azerbaijan in order to build a sustainable local supply chain for the oil and gas industry in the Caspian region.



## Opening up new opportunities

Digital Source is a local company providing services in information technology (IT) since 2008. The company joined EDTP in October 2010 with the goal of meeting international tender requirements and participating in the tenders announced by BP and other international companies.

Although the management system at Digital Source was certified under ISO and other international standards, during the business diagnostic process EDTP experts identified a number of gaps in their quality assurance. The client feedback system was not in place and the company's goals and objectives were not clearly defined. After three months of participation in EDTP, Digital Source was able to close these gaps. They created a customer feedback system, developed a performance evaluation process, and adjusted IT equipment to clients' needs in order to fulfil their demand efficiently. Furthermore, EDTP assisted the company to establish and deploy an effective customer communication system, which allowed the company to understand the customer requirements and needs in the market.

In December 2010, Digital Source successfully completed the EDTP programme. The company's chief executive officer Jalil Babazade said: "Participation in the EDTP enabled us to outline the company plans towards its long-term goals and objectives. As a result, we allocated our resources in a more efficient way by investing in equipment meeting requirements of our customers and making strategic partnership with leading international IT companies. All these enabled us to pass through strict competition and win several big contracts in 2011-12 with local and international companies". As a result, Digital Source made considerable investments in modern equipment and recruited six employees for the new projects.

Together with our co-ventures in Azerbaijan, we signed new long-term contracts with 61 local companies in 2012 worth about \$1.1 billion.

In 2007, we launched our flagship enterprise development and training programme (EDTP). Its goal is to identify local hydrocarbon sector companies and help them to achieve international standards, enhance their competitiveness and increase local content in our projects. The project's long-term objective is to identify and develop local entities eligible to fulfil strategic services for BP and oil and gas industry in line with the BP AGT localization efforts.

Since the inception of the programme, 1,088 companies were appraised, 206 gap analyses were conducted and 211 tailored business development plans were produced to eliminate identified gaps. A total of 121 companies, including 28 in 2012, have successfully completed the programme. As part of EDTP ongoing efforts to widen business opportunities for local companies, capability assessments of 350 potential suppliers were conducted during the year.

BP has awarded 38 new contracts to the EDTP participants. Overall, the EDTP has helped its participants to secure contracts with local and international companies totalling more than \$335 million, of which some \$181 million has been with BP in Azerbaijan. In 2012, 28 EDTP participated companies subsequently won contracts with BP and its co-venturers worth of about \$54 million. Eight EDTP companies won contracts worth \$44.8 million with other international companies while 13 companies won contracts worth \$51.4 million with local companies.

Participating local companies have also invested about \$2.22 million in new capital equipment and hired 829 employees in 2012.

The EDTP itself was the subject of a third-party evaluation by the International Finance Corporation. The assessment confirmed the EDTP's unique contribution and relevance to the economic development of Azerbaijan in line with the strategic priorities of the government of Azerbaijan.

## Advances of our localization strategy

We identified procurement opportunities for localization and created a three-year strategy for high impact categories with the potential to develop a sustainable local capability.

Nationalization key performance indicators have since been agreed with 85% of the top foreign contractors in Azerbaijan. Implementation of this strategy started in 2012. As part of the strategy, following a competitive tendering process, on behalf of our co-ventures, we awarded a new \$3 million contract to Azermis LLC in 2012 to implement the EDTP project until October 2015. The contract commits Azermis to focus on market intelligence, targeted gap analysis, a development programme and capacity building aimed at small and medium sized companies.

Subsequently the EDTP was utilized through a form of direct intervention (supplier quality management) and by considering partnership arrangements with reputable international firms. Capacity building included three stages – diagnostic; development (training); and supplier quality assurance as judged against BP's operating management system and other technical requirements.

In 2012, we and our co-venturers sponsored the first master class for the EDTP participants as part of our local content development strategy. We have recently introduced an 'excellence through supplier' quality system and now expect our contractors and sub-contractors to be able to perform structured corrective action/problem solving. The class was well attended by local representatives of engineering, fabrication, waste management, information technology and other businesses. More classes on topical business subject are expected to be run in 2013.

Throughout 2012, we supported the Shah Deniz Stage 2 project in selected localization opportunities with a view to maximizing in-country fabrication, and enhancing infrastructure and workforce capability.

Additionally, the enterprise e-centre at [ecbaku.com](http://ecbaku.com) continued to provide up-to-date online information about projects supported by BP and its co-venturers in Azerbaijan in order to give useful insights on how to work with BP and other international and local companies.



The companies, participating in our supplier development programmes, provide oil and gas projects in the Caspian region with a wide range of services.



### Our spend in Azerbaijan in 2012

Our joint operations and projects expenditure in Azerbaijan last year totalled more than \$1.6 billion – an increase of more than 33% over 2011.

As part of this our sustainable in-country operations-only expenditure with local suppliers rose to about \$1.2 billion – a 29% increase over 2011 reflecting increasing linkages between our enterprise development efforts and our demand planning. The total included a 76% rise to \$450 million in direct expenditure with local small and medium enterprises<sup>a</sup> (SMEs) – a key target audience of our development projects – and incorporated a 17% rise in spending with joint ventures to \$334 million and growth of 39% to \$50 million in our expenditure with state-owned companies. Our indirect sustainable local spend through foreign suppliers in Azerbaijan grew by 0.5% to \$389 million in 2012.

Altogether we and our co-ventures did business with 263 companies and individuals in Azerbaijan in 2012 of which 223 (85%) were SMEs.

### Business enabling environment project

With our co-ventures we continued to support a business enabling environment project (BEE) implemented by the International Finance Corporation. This programme was set up to assist the government of Azerbaijan in improving legislation in the spheres of permits/licensing, inspections and business registration.

During the year, the permits portal *icazeler.gov.az* went live and the centralized e-Registry of Inspections *yoxlama.gov.az* was improved. These elements aim to widen access to regulatory information and improve transparency and so reduce transaction costs and improve the business environment. As required by the regulations on permits portal, the government of Azerbaijan for the first time placed on the site more than 100 draft laws and regulations related to entrepreneurship for public discussion.

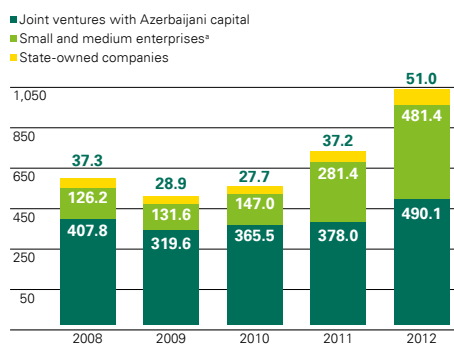
The SME portal *biznesinfo.az* was launched in February 2012. This site provides free analytical materials, self-learning tools, and business-focused news to a targeted local business audience. Within three months of operation, the site received a national award, NETTY 2012, as the best Azerbaijani internet site for information and news. Over the reporting period, the number of visitors consistently exceeded 40,000 per month. Estimated downloads of various templates and self-help materials developed by the project exceeded 10,000. Other particularly popular materials include articles in the following sections: Marketplace, Ask an Expert, In Focus analysis, and Women in Business.

Related to this project, the Confederation of Azerbaijan Entrepreneurs, the Ministry of Economic Development, and Minimax LLC jointly conducted regional seminars in June and July on permits portal, the e-Registry of Inspections, and the SME portal in six centres (Ganja, Guba, Lenkoran, Mingachevir, Sheki, and Sumgayit) to raise private sector awareness on the resources developed and supported by BEE. The seminars attracted strong interest from 200 participants, mostly from the SME sector.

The project also included capacity building for the inspection agencies. Seven key officials representing governmental institutions participated in the International Conference on Inspections' Reforms organized by IFC jointly with the UK office for Better Regulation Delivery.

The total BEE project budget was \$460,000 of which \$200,000 was committed in 2008 and \$260,000 in 2010 by BP and its co-ventures. The project ended in December 2012.

### BP and co-venturers' direct operations and projects spend in Azerbaijan (\$ million)



<sup>a</sup> This amount also includes expenditures with physical persons.

# Working with communities



## Growing from apprentice to master

Elchin Abbasov has been involved in business from an early age. His father is a mechanic who has been running his own auto repair workshop since 1997 in Saritapa village in the Shamkir district.

During his childhood, Elchin was a great fan of cars like many boys his age. As he grew up he was drawn to his father's business. During school holidays, he assisted his father in minor repair work such as painting small parts and plastering minor dents in the cars. Before long, Elchin considered himself his father's apprentice. But to move to the next stage he knew that he needed to obtain technical knowledge and more experience.

"I attended regular meetings arranged by BP's community liaison officer at the community's school building where he talked about the status of the projects implemented in our district," he explains. "He also mentioned that a lot of young people benefited from the vocational training conducted by UMID SSD through BP and its co-ventures financial support."

"I was always on the look out for an opportunity to learn more. So when I got the chance to attend specialist training on the repair of foreign brands, I took it. It was in April 2012 and four months later I successfully completed the training course. Now I can repair most brands of cars. As a result I have opened my own auto-repair workshop at the entrance of Saritapa community and am running it successfully".

He adds: "BP and its co venturers funded the training that enabled me to grow from apprentice to master. Now I am very much more confident and would like to share my professional experience with my friends. Already two of them, one from Saritapa and the other from a neighbouring village, have been inspired by my example and enrolled in the same training programme that I did."

Now a 23-year old father of two, Elchin is earning enough money to provide his family and to expand his business further.

In 2012, BP and its co-venturers sought to enhance economic development in communities close to the Baku-Tbilisi-Ceyhan (BTC) and South Caucasus Pipeline (SCP) routes.

In Azerbaijan, our community and sustainable development strategy focuses on community and local enterprise development, capability building initiatives and effective governance programmes. Selection of these projects is open and transparent, and is based on their potential impact, sustainability and active community involvement.

With our co-ventures, we allocated \$990,585 to Community Development Initiative programmes in 2012. They included:

### Community-based support for dairy producers

This project is designed to expand dairy production by small farmers and link regional milk collection centres with commercial dairy processors in Azerbaijan. Its main funders are the US Agency for International Development with BP and its co-venturers in Azerbaijan.

The programme was set up in 2010 and ended in December 2012. It was implemented by UMID Support to Social Development (SSD), a non-governmental organization (NGO). The budget was \$332,389 of which \$225,554 was spent in 2012.

During 2012, milk collection points were established in four villages – Saritepe (Shamkir), Garabujag, Karrar (Kurdamir), and Gushchular (Goranboy). These centres were provided with laboratory equipment to perform initial milk testing. Some 450 people participated in 28 training sessions on topics such as milk storage and cattle breeding.

### Income generation and capacity building programme

This is a two-year project being implemented by Ganja Agribusiness Association in collaboration with the Azerbaijan State Agricultural University with the financial support of BP and its co-venturers. It started in November 2011 with a budget of \$787,629 of which \$497,610 was spent in 2012.

Intended to create sustainable income generation and capacity-building opportunities for community members, it is targeted at the agricultural sector. The project aims to construct 132 greenhouses, a community bakery and 96 beekeeping hives. Training to manage these facilities and businesses is also provided.

In 2012, 24 greenhouses were constructed and 68 bee-families were distributed among the participants. In addition, 124 farmers took part in 26 training sessions on seedling growing, vegetable cultivation, plant protection, green vegetable growing and bee keeping.

### Building youth entrepreneurship skills

This two-year project supports young entrepreneurs by building their skills and opportunities for income and contributes to youth social welfare through programmes including as apprenticeship. UMID SSD implemented the project.

In 2012, 219 young people were involved in the apprenticeship programme. Of these, 68 successfully graduated from the courses. In parallel, 117 young people found full time jobs and 38 received grants to start-up their businesses.

### Youth Business Leadership Project

In December 2012, BP on behalf of its co-ventures, the US Agency for International Development and the American Chamber of Commerce launched a new Youth Business Leadership initiative to support the professional development of the next generation of business leaders in Azerbaijan. The venture will provide internships to 120 third and fourth year university students from Baku and Ganja. It is being implemented by Junior Achievement Azerbaijan (JAA).

The primary purpose of the two-year project is to give young students the business tools necessary to become entrepreneurs and future business leaders in Azerbaijan by providing them with real-time opportunities to learn about business through internship employment at private companies.

Within the reporting period, the JAA held presentations in Baku State University, Azerbaijan State Economic University and Qafqaz University to familiarize students with the project. Training and internships for the first 25 students started in 2013.

The project budget is \$200,000 of which \$100,000 will be provided by BP and its co-ventures. Around \$30,000 was spent in 2012.

### Local governance and environmental programme

BP, on behalf of its co-venturers signed a grant agreement with the Eurasia Partnership Foundation to support local governance, youth capacity-building and environmental initiatives in Azerbaijan. The project is designed to increase transparency in municipal service delivery by establishing clear governance practices in local government and by encouraging youth participation in local affairs. It covers nine municipalities along the Azerbaijan section of the Baku-Tbilisi-Ceyhan and South Caucasus Pipeline.





## Educating the youngest community members

At one of the meetings held by BP's community liaison officer in the Deller Jeyir village school Zulfiya Gurbanova, a graduate of Ganja State Humanitarian College, heard that a preschool education project was to be implemented with the financial support of BP and its co-ventures.

Zulfiyya was unemployed when she heard about this initiative and was then selected through a competition to work at a community based pre-school education centre. Before starting to teach at the centre she attended a series of capacity-building training sessions.

That was two years ago. "Since then I have been teaching pre-school children about numbers, dates, the concept of colours and about animals, cities, nature and historical monuments of Azerbaijan" she says.

Word of this project spread beyond Deller Jeyir. Some parents from Deller and Deller Dashbulag communities, which are two to three kilometres away, then brought their children to the centre to study. As a result 55 children successfully finished school readiness training at the centre and went on to primary school.

One of the mothers, Lamiya Mammadova, whose child Elmir studied at the centre, says: "My son grew incredibly fast once he started attending the centre. Not only has he learnt numbers, colours and other basic concepts, he also is more confident in speaking his mind, more conscious about others and more mature in his behaviour".

BP's Sustainable Development Initiative project officer Rena Hasanova adds: "Taking into account the high appreciation by community members, and the desire of primary school teachers to acquire the innovative methodology, the project duration has been expanded until the end of 2013." The education centre, which is a property of municipality, will be jointly run by community and municipality after the project ends.

Within the reporting period the project established youth chambers in nine municipalities. A total of 47 young people participated in the system of local governance and project management training and 45 young people in the environmental awareness-raising training. In addition, the youth chambers received small grants to address environmental challenges in their communities.

The project scope also includes capacity-building to municipalities in the areas of strategic planning, performance measurement and public participation in local governance. In total, 57 municipal staff members took part in training in this area in 2012. Small grants were awarded to the municipalities in the first quarter of 2013 to help them implement socio-economic projects in communities.

Overall, the project budget is \$463,873 of which \$195,799 is being provided by BP and its co-ventures. A total of \$179,987 was spent in 2012.

## Centre of entrepreneurship for empowering youth

A business and management unit within Ganja Vocational Training Centre was established in 2012 as part of a project implemented by the Azerbaijan Community Development Research, Training and Resource Centre. The aim was to foster youth entrepreneurship in Goranboy, Yevlakh, Shamkir, Agstafa, Samukh and Tovuz districts, all of which border the BTC/ SCP route in Azerbaijan.

The initiative started in December 2010 with financial support from BP and our co-ventures and ended in June 2012. The budget was \$98,845 of which \$7,434 was spent in 2012. About 600 students participated in four-month courses on accounting, cosmetology, welding, computer technology, computer repair, sewing and knitting to enhance their practical skills with a view to obtaining employment or starting their own small businesses.

## Supporting pre-school education

This project seeks to improve the quality of pre-school education, increase the access of five to six-year old children to kindergartens and create self-employment and income-generating opportunities for women in local communities. It is being implemented by the Centre for Innovation in Education and began in October 2012 with backing from BP and our co-venturers. The budget is \$226,224 of which \$50,000 was spent in 2012.

The model for the programme, piloted initially in Deller Jeyir, will now be applied in Deller Jirdakhan and Duyerli communities of Shamkir district in 2013. During the pilot scheme, teachers working for local public kindergartens and primary schools were provided with the child-centred pre-school methodology and underwent step-by-step training.

## Employee engagement programme

BP's employee engagement programme (EEP) is designed to encourage our staff to volunteer their time and talents through time-matching.

In 2012, about 40 employees participated in EEP via educational projects and donated 750 hours, equivalent to \$15,000, for the implementation of the Caspian Engineers Society summer school project.

In total, from November 2009 to December 2012, a local NGO Saglam Hayat public union implemented 15 EEP projects worth about \$94,000 using EEP-generated money.

## The BP library initiative

In 2012, we renovated and upgraded school libraries in Ashagi Agasibeyli village in Samukh and in School no.8 in Goranboy district. The aim is to improve children's access to books. The cost of the project was \$9,621. This was donated by BP employees following a year-end raffle campaign. About 1,500 schoolchildren and teachers benefitted.

## Other initiatives

Another library project during 2012 involved the purchase of 44 engineering discipline books for the Caspian Engineers Society at a cost of \$5,000.

We also helped ten girls from orphanages in Azerbaijan to attend hairdresser courses last year. The project cost \$5,000 and was matched by the time volunteered by BP employees.

In addition, we helped to fund the repair by Saglam Hayat public union of a school roof at Kindergarten no.20 in Sumgayit. Cash contributions were made by BP employees and the International Women's Club-Baku. About 180 children benefitted from the project, which cost \$7,591.

# Educational initiatives

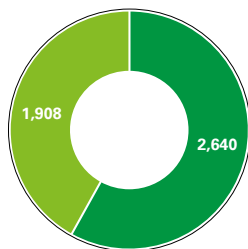
## Jeyhun Karamov PREP Programme Manager, BP AGT

PREP is a unique, world-class learning programme for Azerbaijani nationals to enhance their technical knowledge and skills. It includes deep technical training by an internationally-known university, an immersive English-speaking technical environment, a strong focus on communication skills and exposure to real business. PREP creates a favourable opportunity for young Azerbaijani engineers to join BP and the international oil industry.



### BP and co-venturers' social spend in Azerbaijan (\$ thousands)

■ BP  
■ Co-venturers



BP and its co-venturers continue to support educational initiatives and programmes that are building the capability of energy industry specialists in Azerbaijan.

In 2012, these initiatives included the training of young Azerbaijani petro-technical graduates and a range of undergraduate and graduate scholarship programmes. Our emphasis was on science-based disciplines, including petroleum, chemical and mechanical engineering.

### Petro-technical learning programme

The petro-technical resource entry programme (PREP) is the BP group's new learning and development tool for national petro-technical graduates. The aim of PREP is to help develop national petro-technical expertise that benefits both the industry and Azerbaijan. Lasting 11 months, it is overseen by internationally-recognized experts and companies. For more information about PREP see [page 23](#).

### Qafqaz University project

In 2012, we continued our support of Qafqaz University's efforts to broaden its curriculum to cover undergraduate education in chemical, mechanical and other engineering disciplines. The total budget for this project is \$2.4 million of which \$1.1 million was spent in 2012. By the end of 2012, 59 students enrolled in mechanical engineering courses. The number of students in the chemical engineering department is 73.

Our specialists also contributed to the university's engineering programmes by sharing their knowledge in seminars and conferences and by providing access to BP laboratories to help increase the students' exposure to the industry.

Eleven fully-equipped laboratories are planned to open in the university's mechanical engineering department in 2013.

### School of Project Management

The School of Project Management (SPM) was established in Khazar University by BP and its co-venturers in 2010. It was set up to develop the project management skills of individuals working in both the private and public sectors in Azerbaijan. Today it offers access to a globally-recognized, comprehensive project management programme developed by industry leader ESI International.

In June 2012, SPM's first graduation ceremony took place during which graduates received their international Master's Certificates in Project Management from George Washington University. The graduates represented government and various business sectors including oil and gas, engineering, construction, marine, geology, banking and finance, education and telecommunications.

In addition, SPM signed a contract with the Ministry of Education in 2012 to provide training to government employees across the ministries as part of a joint Azerbaijan government and World Bank Public Investment in Capacity Building project.

In total, 146 representatives from 35 private and public organizations enrolled in the SPM in 2012. Of those, 51 qualified for the George Washington University Master's and 94 for Associates Certificates. Since the inception of the project, 183 representatives from 77 private and public organizations in Azerbaijan have entered the SPM. The overall budget is \$1.6 million of which \$400,000 was spent in 2012. The project will continue until 2015.

### BP Bursary Programme

BP's Bursary Programme is an ongoing initiative launched in 2007. It is targeted at students pursuing oil and gas-related studies. The annual bursaries form part of the company's wider commitment to supporting higher education in Azerbaijan.

In 2012, the programme, which includes bursaries to the State Oil Academy, was expanded to four other universities – Baku State University, Khazar University, Qafqaz University and University of Architecture and Construction.

We presented bursary awards to 91 top students at five local universities who were specializing in 11 petro-technical disciplines – from petroleum engineering and geology to corrosion and inspection. The recipients were first and second year students out of whom 61 had a chance to



Students at the BP summer geology field course.



## New horizons in project management

Ramiz Mammadli studied public administration in the United States. On graduating he came back to Azerbaijan full of energy and high expectations but soon realized that he needed to focus on a more narrow specialization aligned to his academic background and skills.

While looking for a job he learned that the School of Project Management (SPM), established at Khazar University with BP and its co-venturers' financial support, was looking for a project manager. He applied and was successful. While contributing to the development of the SPM, he took the chance to improve his project management skills by attending the school himself.

"SPM was an excellent opportunity for me and a new challenge. It has enabled me to enhance my knowledge and skills in scheduling and cost control, risk management, project leadership management and communication," Ramiz says. "Moreover the instructors have become my inspiration. I also made good friends and established fruitful relationships with the fellow participants," he adds.

In December 2011, Ramiz led a project for the development of a training system and the construction of a training centre for a large local company that employ over 11,000 people.

After graduating from SPM, Ramiz passed the Project Management Professional (PMP) exam set by the Project Management Institute (PMI). As well as its academic credentials, PMP is a globally-accepted qualification that demonstrates the recipient has mastered essential project management skills and knowledge.

The diverse experience and skills obtained under SPM has given Ramiz the confidence to start-up his own project management consultancy business. Today he is managing reconstruction projects for clients and is also working with other SPM alumni towards the establishment of a PMI Azerbaijan chapter.

improve their technical English language skills through a BP-funded 10-month training course and 30 of them received laptop computers. The total value of bursaries in 2012 was \$45,880.

In total, by the start of 2013 we had presented bursaries to 348 students, eight of whom have gone on to pursue careers within BP in Azerbaijan and three are BP and its co-venturers' Graduate Scholarship recipients.

## BP summer students' geology field course

For the past nine years BP in Azerbaijan has sponsored a field course in sedimentology and structural geology for undergraduate and graduate students. In 2012, 22 students from local and foreign universities were selected from 71 applicants following knowledge-based assessments. The course was led by representatives of Azerbaijan's National Academy of Sciences and the University of Michigan (US).

## Azerbaijan oil and gas scholarship programme

This programme, which has been funded by BP and co-venturers since 2002, enables Azerbaijani students to pursue undergraduate and graduate studies in engineering and geosciences at universities in Turkey and Azerbaijan. Thirty two undergraduate students and two graduate students were supported in 2012. Twelve students were hired as summer interns and eight as Challengers (see [page 23](#) for more information on our Challenge programme) during the year. The value of the scholarships provided by BP and its co-venturers in 2012 amounted to more than \$104,000.

## South Caspian basin modelling centre

In 2008, we launched the South Caspian basin modelling centre at the Geology Institute of the National Academy of Sciences. The centre now serves as a home for advanced geological modelling equipment and facilitates subsurface modelling of the challenging South Caspian basin. In this it is supported by experts in related disciplines such as geology, geophysics, geochemistry and biostratigraphy.

In 2012, work at the centre concentrated on geothermal history and subsiding modelling of the South Caspian basin. We also supported a research project in Leoben University in Austria by an employee of the Geology Institute. Another sponsorship involved the International Conference on Ultra Deep Hydrocarbon Potential in Baku.

## International Petrochemical Conference

We provided technical support in 2012 to the 8<sup>th</sup> International Oil Chemistry Conference named after Yusif Mammadaliyev. Organized by the Institute of Petrochemical Processes (part of the Academy of Sciences), the conference originates from a BP initiative in 1994. We also sponsored this conference in 1996, 1998 and 2000.

In 2012, our sponsorship was worth \$14,947 and covered the distribution of materials to conference participants. About 250 scientists and engineers from the US, the UK, Germany, Russia, Kazakhstan, Georgia and Azerbaijan participated.

## Azerbaijan Business Case Competition

For the second year in a row we underwrote the Azerbaijan Business Case Competition project run by the Azerbaijani Alumni Association. Some 450 students representing Azerbaijan State Economics University, Qafqaz University, Baku State University, Azerbaijan State Oil Academy, the Azerbaijan Tourism Institute and the Academy of Public Administration took part.

The idea of the competition is to provide participants with real-life cases to resolve, widen their business knowledge and enhance presentation skills. In 2012, BP's sponsorship of \$6,410 covered purchase of prizes for the finalists and winners. Our employees also volunteered as trainers, coaches and a jury panel member for the competition.

## Caspian Energy Centre

In 2012, 2,827 people visited the Caspian Energy Centre (CEC). Of these visitors more than 1,792 were guests of the government of Azerbaijan or our co-venture companies, foreign embassies in Baku or representatives of diverse organizations interested in our activities. Another 1,035 were schoolchildren and students.

The year was also notable as the CEC hosted its 40,000<sup>th</sup> visitor since opening in May 2005. In addition, we opened a new exhibition 'Oasis', which explains how BP produces energy in environmentally-sensitive areas. The show includes images of the Caspian Sea and Absheron peninsula landscapes with local flora and fauna, a film about BP's approach to the environment, interactive games with environmental quizzes and a garden with samples of local rocks.

# Five-year performance data<sup>a</sup>

For the year ended 31 December

<b>Operating</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Total hydrocarbons produced (thousand barrels of oil equivalent per day) <sup>b</sup>	881	1,023	1,036	922	<b>893</b>
<b>Financial<sup>c</sup></b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
OPEX (operating expenditure) – total spend, gross (\$ million)	1,154	1,174	831	1,206	<b>1,360</b>
CAPEX (capital expenditure) – total spend, gross (\$ million)	2,659	1,443	2,096	2,636	<b>3,669</b>
<b>Safety</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Fatalities – employees	0	0	0	0	<b>0</b>
Fatalities – contractors	0	1	0	0	<b>0</b>
Days away from work cases – workforce	3	0	1	3	<b>3</b>
Days away from work case frequency – workforce	0.03	0	0.01	0.03	<b>0.03</b>
Recordable injuries – workforce	44	21	15	21	<b>20</b>
Recordable injury frequency – workforce	0.40	0.23	0.17	0.24	<b>0.21</b>
Hours worked – employees (million hours) <sup>d</sup>	7.13	5.04	5.37	5.80	<b>5.55</b>
Hours worked – contractors (million hours) <sup>e</sup>	15.09	12.58	12.60	11.74	<b>13.49</b>
<b>Environment</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Direct carbon dioxide (CO <sub>2</sub> ), gross <sup>f</sup> (kilo tonnes)	3,667.7	3,827.1	3,656.8	3,892.5	<b>3,543.7</b>
Indirect carbon dioxide (CO <sub>2</sub> ), <sup>g</sup> gross (kilo tonnes)	0.5	0.4	0.5	0.6	<b>0.6</b>
Direct methane (CH <sub>4</sub> ), gross (kilo tonnes)	20.8	15.6	10.5	13.5	<b>11.2</b>
Direct greenhouse gas (GHG) emissions, <sup>h</sup> gross (kilo tonnes CO <sub>2</sub> equivalent)	4,113.9	4,155.4	3,876.4	4,177.0	<b>3,776.2</b>
Flaring (exploration and production), gross (tonnes)	841,856	574,922	423,265	589,717	<b>475,910</b>
Sulphur dioxide (SO <sub>x</sub> ), gross (tonnes)	3,034	2,842	3,396	2,967	<b>3,639.5</b>
Nitrogen oxides (NO <sub>x</sub> ), gross (tonnes)	7,243	8,412	8,908	8,544	<b>8,695.2</b>
Non-methane hydrocarbon, gross (tonnes)	4,965	2,816	2,398	2,787	<b>2,539.7</b>
Number of oil spills <sup>i</sup>	12	12	11	5	<b>12</b>
Volume of oil spilled (litres)	12,154	9,831	32,181	2,677	<b>175,716</b>
Volume of oil unrecovered (litres)	1,112	1,039	392	0	<b>156,794</b>
Operational discharges to water – drill cuttings with synthetic-based mud (tonnes)	808	890	3,308	0	<b>0</b>
<b>Employees</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Number of permanent employees of BP in Azerbaijan	2,201	2,328	2,470	2,701	<b>3,072<sup>j</sup></b>
Number of professional staff of BP in Azerbaijan	1,994	2,237	2,378	2,652	<b>2,982</b>
National	1,632	1,889	2,067	2,272	<b>2,530</b>
National (%)	82%	84%	87%	86%	<b>85%</b>
Expatriate	362	348	311	380	<b>452</b>
Senior level Azerbaijani managers	102	117	131	149	<b>168</b>
<b>Social spend</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Total for BP and co-venturers in Azerbaijan, (\$ million) <sup>k</sup>	6.4	3.4	4.8	3.1	<b>4.5</b>

# EITI reported data 2008-2012<sup>1</sup>

2008			2009			2010			2011			2012		
1 January - 31 December			1 January - 31 December			1 January - 31 December			1 January - 31 December			1 January - 31 December		
Value	Volume		Value	Volume		Value	Volume		Value	Volume		Value	Volume <sup>m</sup>	
\$ million	Oil mmboe	Gas thousand ncm	\$ million	Oil mmboe	Gas thousand ncm	\$ million	Oil mmboe	Gas thousand ncm	\$ million	Oil mmboe	Gas thousand ncm	\$ million	Oil mmboe	Gas thousand ncm

## 1. Payments/allocations of foreign company to host government

1a) Host Government's production entitlement in foreign company's Production Stream														
- in kind (SOFAZ)		51.283		65.743		76.035		66.366						<b>57.523</b>
- in cash <sup>n</sup>	33.448		20.561		68.403		93.113							<b>93.192</b>
Profit tax	797.721		264.887		328.302		613.970							<b>621.630</b>
Signing bonuses and other bonuses	0.845		0.000		0.000		20.000							<b>0.000</b>
Other payments, including:														
a) transportation tariff (SOFAZ)	0.025		1.372		1.222		1.246							<b>1.229</b>
b) acreage fee (SOFAZ)	0.900		0.000		0.000		0.000							<b>2.118</b>

## 2. Payments/allocations of foreign company to host state-owned company

Other payments, including:														
a) transportation tariff (SOCAR) <sup>o</sup>	n/a		n/a		n/a		n/a		n/a					<b>n/a</b>
b) associated gas (SOCAR) <sup>p</sup>		1,967,495.330		3,640,412.268		3,190,738.758		3,114,485.482						<b>3,196,498.648</b>

<sup>a</sup> Unless otherwise stated, performance data relates to BP in Azerbaijan only.

<sup>b</sup> This includes Azeri-Chirag-Deepwater Gunashli oil, Shah Deniz gas and condensate, associated gas delivered to State Oil Company of the Republic of Azerbaijan.

<sup>c</sup> The BP AGT and its co-venturers.

<sup>d</sup> Hours worked by employees – are identified as hours worked by individuals who have a contract of employment with BP; this definition is consistent with BP's group definition.

<sup>e</sup> Hours worked by contractors – are identified as hours worked by contractors under the sphere of our control; this definition is consistent with BP's group definition.

<sup>f</sup> Gross numbers represents total of all partners' participating interest in production sharing agreements (PSA). Net numbers represents BP's participating interest in PSA.

<sup>g</sup> Indirect emissions are a consequence of the import by operations of steam, electricity and heat from third-party sources.

<sup>h</sup> Direct GHG emissions are the physical emissions from operations.

<sup>i</sup> Oil spills are defined as any liquid hydrocarbon release to secondary containment or to open environment of more than or equal to one barrel (159 litres, equivalent to 42 US gallons).

<sup>j</sup> Number of permanent employees and professional staff include also 65 Azerbaijani national professional employees on assignments.

<sup>k</sup> This is the cash-out number.

<sup>l</sup> The 2003-07 data can be found on page 60 of the *BP in Azerbaijan Sustainability Report 2007*. The figures do not include the payments made on behalf of Devon Energy Caspian Co.

<sup>m</sup> mmboe – million barrels of oil equivalent; ncm – normal cubic metres.

<sup>n</sup> In kind – State Oil Fund of the Republic of Azerbaijan; in cash – the payment for Shah Deniz gas.

<sup>o</sup> Transportation tariffs for Northern Route Export Pipeline (NREP) were paid to the State Oil Company of the Republic of Azerbaijan (SOCAR) as a commercial entity rather than as a representative of the government. In 2008, the operatorship of NREP was assumed by SOCAR.

<sup>p</sup> BP as the operator of Azerbaijan International Operating Company, reports the total gross number for associated gas delivered to SOCAR, within BP's template.

# Independent assurance statement

This report has been substantiated by Ernst & Young, the BP group auditors. The primary purpose of the report substantiation process is to test that the assertions, claims and data set out in the text regarding BP's sustainability performance can be supported by evidence. This process is intended to give assurance about the report contents from an independent third party. Ernst & Young's scope of work and their conclusions are provided below.

## Independent assurance statement to BP management

The BP in Azerbaijan Sustainability Report 2012 (the Report) has been prepared by the management of BP in Azerbaijan who are responsible for the collection and presentation of information within it.

Our responsibility in performing our assurance activities is to the management of BP p.l.c. only and in accordance with the terms of reference agreed with them. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any reliance any such third party may place on the Report is entirely at its own risk.

## What we did to form our conclusions

Our assurance engagement has been planned and performed in accordance with the International Federation of Accountants' ISAE3000<sup>a</sup>.

The Report has been evaluated against the following criteria:

- Whether the Report covers the key sustainability issues relevant to BP in Azerbaijan in 2012 which were raised in the media, BP Azerbaijan's own review of material sustainability issues, and selected internal documentation.
- Whether sustainability claims made in the Report are consistent with the explanation and evidence provided by relevant BP managers.
- Whether the sustainability data presented in the Report are consistent with the relevant business unit level data records.

## In order to form our conclusions we undertook the steps outlined below.

1. Reviewed a selection of external media reports and internal documents relating to the sustainability performance of BP in Azerbaijan in 2012, including outputs from stakeholder engagement.
2. Reviewed the outcome of BP Azerbaijan's own processes for determining the key issues to be included in the Report.
3. Reviewed information or explanation about the Report's sustainability performance data and statements. Whilst we reviewed documentation to support the sustainability data contained within the Report, we did not test the data processes for gathering, collating and reporting data at country or site level.

## Level of assurance

Our evidence-gathering procedures have been designed to obtain a limited level of assurance on which to base our conclusions. The extent of evidence-gathering procedures performed is less than that of a reasonable assurance engagement (such as a financial audit) and therefore a lower level of assurance is provided.

## Our conclusions

On the basis of our review, and in accordance with the terms of reference for our work, we provide the following conclusions on the Report. Our conclusions should be read in conjunction with the above section on 'What we did to form our conclusions'.

1. Does the Report cover the key issues?  
We are not aware of any key sustainability issues relevant to BP in Azerbaijan which were raised in the media or the outcome of BP Azerbaijan's own materiality process that have been excluded from the Report.

2. Are the data and claims regarding BP in Azerbaijan's sustainability performance contained within the Report supported by evidence or explanation?

We are not aware of any misstatements in the assertions and data presented by BP management within the Report regarding sustainability performance.

## Our independence

As auditors to BP p.l.c., Ernst & Young is required to comply with the requirements set out in the Auditing Practices Board's (APB) Ethical Standards for Auditors. Ernst & Young's independence policies apply to the firm, partners and professional staff. These policies prohibit any financial interests in our clients that would or might be seen to impair independence. Our partners and staff are required to confirm their compliance with the firm's policies each year.

We confirm annually to BP whether there have been any events, including the provision of prohibited services, that could impair our independence or objectivity. There were no such events or services in 2012.

 **ERNST & YOUNG**

Ernst & Young LLP  
London  
23 May 2013

<sup>a</sup>International Federation of Accountants' International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information (ISAE3000).

# Report process and feedback

This report aims to provide a full and transparent account of our performance and activities in Azerbaijan in 2012 and to respond to feedback, we receive from our stakeholders.



This is the tenth BP in Azerbaijan Sustainability Report (SR). It describes our activities in the country during 2012 and reflects feedback we received about previous reports.

BP group auditors Ernst & Young have provided external assurance. Their job has been to ensure that the report offers a balanced and accurate representation of our performance in Azerbaijan in 2012 and that figures and statements it contains are correct and supported by documentation.

## Feedback

As with previous publications, the 2011 SR was produced in Azerbaijani and English and circulated widely both internally and externally, in hard copy and through our website. All our major stakeholders received a copy and their feedback was requested. We also organized three live feedback sessions involving media representatives, students, and civil society. In general, their reactions were positive.

**Students** from the Academy of Public Administration, Baku State University, State Economic University, Khazar University, Qafqaz University and State Oil Academy participated in a joint feedback session. Recruitment-related issues and BP's internship programme most interested this group along with the use of new technologies in the Caspian region. The students also favoured improvements to SR communications, specifically the use of new formats such as infographics.

**Media** feedback was mostly positive and the 2011 SR was regarded as being as comprehensive and informative as the year before. Suggestions for the future mostly concerned the inclusion of greater technical detail in the 'Our operations' section of the report and more information about production challenges. Other ideas included greater use of charts and diagrams.

**Civil society** representatives took part in a one-day roundtable discussion. BP group reporting team participated at the meeting to listen feedback on BP's sustainability reporting at group and country level. In advance of the meeting, all the participants were interviewed to understand their views about our sustainability reporting. The interviews helped to set the context for the subsequent discussion and inform decisions about our sustainability reporting in general.

One of the main suggestions was to include more material on our strategic outlook and future plans. The feedback also revealed a desire for more information in future reports on projects related to sustainable development such as which NGOs and which communities BP and co-venturers work with and in, the types of contribution and the results and future plans.

## Our response

In response to the feedback we have included more information on our graduate recruitment and internship programme in Azerbaijan in this report. We have illustrated statistics with more diagrams and used infographics.

We have also included various statements about our future plans in different sections of the report and added a brief overview of our global strategy. In addition, we have included a new 'Production management' sub-section and a case study about innovative technology piloted in the Caspian – as suggested by our stakeholders.

We have continued our commitment to report information about our spending in Azerbaijan, our recruitment practices, our safety and environmental performance and our payments to the government of Azerbaijan in line with joint efforts to enhance revenue transparency.

For ethical and privacy reasons, and in accordance with BP group policy, we have not disclosed payments made to individual employees or to contractors or market-sensitive information. An aggregated account of the BP group's revenues and expenditures worldwide can be read in the company's 2012 annual report.

Should you have feedback about this report, please get in touch with us using the contact details printed on the back page.



Feedback sessions with students, media and civil society representatives.



BP's approach to sustainability reporting  
[bp.com/sustainability](http://bp.com/sustainability)



Summary of BP group's financial and operating performance  
[bp.com/summaryreview](http://bp.com/summaryreview)



### Visit the Caspian Energy Centre

The Caspian Energy Centre (CEC) is located 55km from the centre of Baku, at Sangachal oil and gas terminal, near the Salyan highway. Visits are free of charge and take place from Monday to Friday between 10.00 and 16.00 hours.

All visits to the CEC are pre-arranged. School and university student visits must be accompanied by parents or teachers. Adults (16 years old and up) need to provide their names and ID card numbers before a visit.

Phones: +994 (0)12 446 8181 / 446 8141

Email: [cec@bp.com](mailto:cec@bp.com)  
[cec.az](http://cec.az)



### Apply for a job

Visit the Careers section of our website at [bp.com/caspian/careers](http://bp.com/caspian/careers)

There you can learn more about the technicians' recruitment programme, the graduate and intern recruitment programmes and any experienced professional vacancies at BP in Azerbaijan.

Please note: The graduate and intern recruitment campaign usually starts in October and is announced in the local media.



### Get a contract

Go to the Enterprise E-centre – a web portal that carries information on our development projects and gives guidance on how our procurement system works.

[ecbaku.com](http://ecbaku.com)



### Raise a grievance/concern, request information

To express your grievance or concerns, or to request information, please contact our community liaison officers:

Garadagh, Absheron, Hajigabul, Agsu, Kurdamir, Ujar  
+994 (0)55 225 0251/225 0245

Agdash, Yevlakh, Goranboy, Samukh  
+994 (0)55 225 0257/225 0254

Shamkir, Tovuz, Agstafa  
+994 (0)55 250 5831/225 0260

Public Information Centres' numbers:

Kurdamir +994 (0)145 505 45

Yevlakh +994 (0)166 658 84

Ganja +994 (0)22 573 890

For all security-related grievances and concerns please call 114.



### Raise a difficult issue

Use the OpenTalk 24-hour phone numbers:

Azerbaijan: +994 (0)12 497 9888

International Collect: +1 704 540 2242

Fax: +1 704 556 0732

Letter: BP OpenTalk, 13950 Ballantyne Corporate Place, PMB 3767, Charlotte, NC 28277, US.

Online form: [opentalkweb.com](http://opentalkweb.com)

Further queries about OpenTalk should be referred to BP in Azerbaijan



### Apply for a community programme grant

Learn more about grants for community programmes at our website [bp.com/caspian](http://bp.com/caspian)

You may also contact us at [cdi@bp.com](mailto:cdi@bp.com)

### Your feedback is important to us.

You can send it online through  
[bp.com/caspian/contactus](http://bp.com/caspian/contactus)

You can also telephone  
+994 (0)12 497 9000

or write to:

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