# **UPSTREAM**

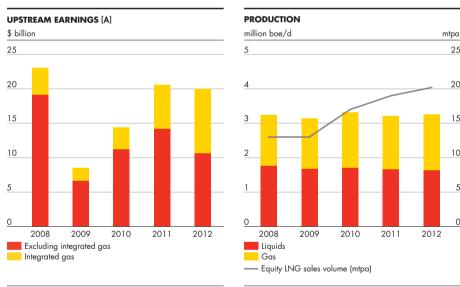
#### **HIGHLIGHTS**

- Produced 3.3 million boe/d of oil and gas, a 3% increase excluding the effect of divestments and exits.
- Sold 20.2 million tonnes of liquefied natural gas (LNG).
- Added 4 billion boe of resources in 2012 from exploration and acquisitions, compared with 1.2 billion boe of production.
- Made seven notable new discoveries and appraisals in conventional exploration, including an appraisal at Appomattox, which now has more than 500 million boe notential.
- Took final investment decisions on Forcados Yokri and Southern Swamp in Nigeria; Tempa Rossa in Italy; Malikai in Malaysia; and North American liquids-rich shales.
- Increased participation in the Draugen, Schiehallion and Beryl fields in the UK North Sea
- Acquired liquids-rich shales acreage in the Permian basin, Texas.
- Divested three oil mining leases onshore Nigeria for a total consideration of more than \$1 billion.
- Found strategic partners for the Groundbirch project and Prelude FLNG, and diluted our stakes in these projects.
- Signed the first ever shale gas production sharing contract in China with CNPC.
- Announced a proposal for developing an LNG export facility in Western Canada with strategic partners called LNG Canada.



KEY STATISTICS					
	2012	2011	2010	2009	2008
Upstream earnings (\$ million)					
Upstream International	21,245	19,697	15,205	7,209	19,298
Upstream Americas	917	4,758	730	1,145	7,208
Total Upstream earnings (\$ million)	22,162	24,455	15,935	8,354	26,506
of which Integrated gas	10,978	7,279	5,727	1,785	4,093
Total Upstream earnings excluding identified items					
(\$ million)	20,025	20,600	14,442	8,488	23,019
Upstream cash flow from operations (\$ million) [A]	32,951	33,281	24,526	18,445	35,448
Liquids production (thousand b/d) [B][C]	1,508	1,551	1,637	1,600	1,693
Natural gas production (million scf/d) [B]	9,449	8,986	9,305	8,483	8,569
Synthetic crude oil production (thousand b/d) [B]	125	115	72	80	
Mined oil sands production (thousand b/d) [B]					78
Total production (thousand boe/d) [B][D]	3,262	3,215	3,314	3,142	3,248
Equity sales of liquefied natural gas (LNG)					
(million tonnes)	20.2	18.8	16.8	13.4	13.1
Upstream net capital investment (\$ million)	25,320	19,083	21,222	22,326	28,257
Upstream capital employed (\$ million)	139,277	126,437	113,631	98,826	83,997
Upstream employees (thousands)	26	27	26	23	22

- [A] Excludes net working capital movements.
- [B] Available for sale.
- [C] Includes bitumen production.
- [D] Natural gas volumes are converted to oil equivalent using a factor of 5,800 scf per barrel.



[A] Excluding identified items.

# **EXPLORATION**

#### STRATEGY

Our exploration strategy is designed to deliver new resources that grow production, creating substantial value for shareholders. Exploration remains the most cost-effective way to access new resources, and our expertise, history and global reach give us advantages in this area. We have extensive acreage in high-potential basins around the world and have had significant success discovering resources in them. Exploration in conventional basins and resources plays are managed separately at Shell.

#### **DISCOVERIES**

25

20

15

10

Our exploration performance has been robust over the past few years. Seven notable new discoveries and appraisals were made worldwide during 2012 in conventional exploration. In Australia, Shell participated in three notable conventional gas exploration discoveries. One could add volumes for the Gorgon Train 4 liquefied natural gas facility, and the others could potentially lead to the development of an FLNG facility in the Outer Exmouth basin. In Malaysia, at the Tukau Timur well, we discovered more than 2 tcf of gas in place, which will unlock satellite fields, and should flow into Malaysia LNG. In Nigeria, the Zabazaba well appraised a sizable oil find. In the Gulf of Mexico, we drilled successful appraisal wells at Appomattox (more than 500 million barrels potential) and Vito, and in Brazil on the Gato do Mato structure.

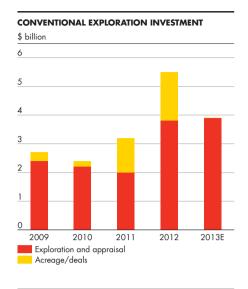
There were also 10 notable successful appraisals in resources plays in Australia, Canada, China and the USA.

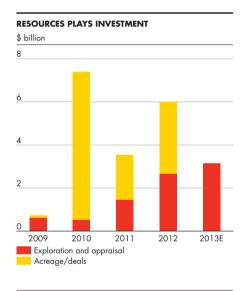
#### **ACREAGE ADDITIONS**

Since 2008, Shell has acquired exploration rights to some 400,000 square kilometres. In 2012, we secured rights to more than 120,000 square kilometres, including positions in liquids-rich shales. Recent significant additions are specified below.

#### **ALBANIA**

In February 2012, Shell signed a farm-in agreement and a joint operating agreement (JOA) with Petromanas to acquire a 50% working interest in Blocks 2 and 3.





#### **AUSTRALIA**

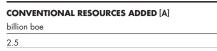
In July 2012, Shell Australia was awarded the W11-2 permit located in the Browse Basin offshore north-west Australia. The new acreage, awarded as Shell 100% equity, contains multiple prospects. This position adds to Shell's operated footprint offshore north-west Australia.

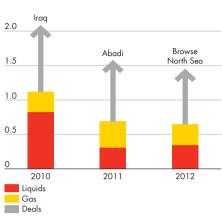
#### BENIN

In August 2012, Shell signed two farm-in agreements for the acquisition of a 35% participating interest in Benin Block 4 from Petrobras (15%) and Compagnie Béninoise des Hydrocarbures (20%).

#### **BRUNEI**

In September 2012, Shell signed a petroleum mining agreement, with Shell

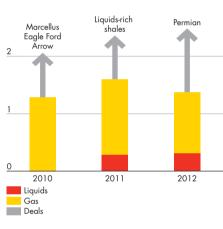




[A] Resources potential

#### **RESOURCES PLAYS ADDED** [A]

billion boe



[A] Resources potential.

Deepwater Borneo as operator with an interest of 53.9%, and Petroleum Brunei holding a 46.1% interest. The signing of this new petroleum mining agreement marks a further commitment by Shell to continue to explore and develop Brunei's hydrocarbon resources.

#### **CANADA**

During 2012, Shell Canada was the successful bidder for four large exploration blocks in deep-water Nova Scotia covering more than 14,000 square kilometres and focusing on a newly-recognised oil play. Shell Canada was also the successful bidder for five parcels in the deep-water Laurentian Basin as well as two parcels in the Sable Basin. In addition, several liquidsrich shale assets were accessed in the

Nordegg, Duvernay, Canol and Muskwa plays. In Groundbirch, Shell Canada added additional dry gas resources.

#### CHINA

In January 2012, Shell signed a binding memorandum of understanding with Ivanhoe Energy to buy its 90% participating interest in the Zitong block in the Sichuan Basin, located directly north of Shell's JQ block. A joint study agreement was also finalised and signed by Sinopec and Shell in June, covering two exploration blocks (XeX1 and 2) in western Hubai Province targeting the Silurian Longmaxi Shale. In July, Shell signed two production-sharing contracts (PSCs) for offshore blocks 62/02 and 62/17 in the Yinggehai Basin. Shell also accessed the shallower prospect above the Zitong/Fushun prolific liquids-rich shale play in the Jurassic Daanzhai Formation, which covers a large area in the Central and Northern Sichuan basin.

#### COLOMBIA

In October 2012, Shell was the successful bidder for the deep-water block COL-3, located directly south-west of Shell's GUA-3 TEA block.

#### **GUYANA**

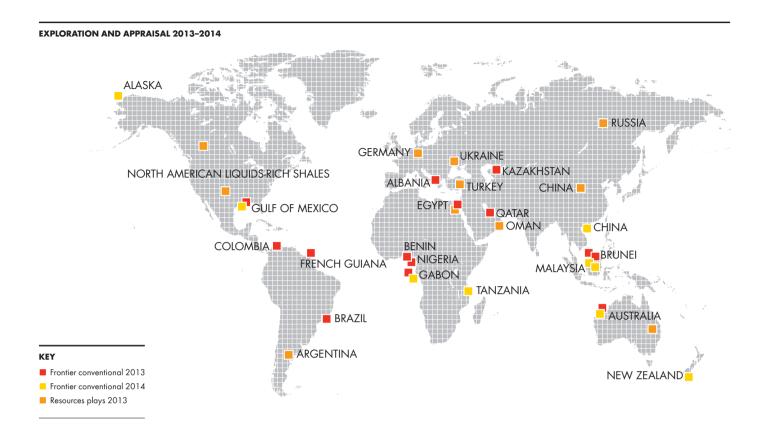
In July 2012, an assignment deed was signed by the government of Guyana, ExxonMobil and Shell that formalised an increase in Shell's stake in the Stabroek permit from a 25% to a 50% working interest.

#### **MALAYSIA**

In March 2012, Shell signed PSCs for deep-water Block 2B and Block SK318, and in September, Shell signed a PSC with Petronas (50%) for Block SK319. These three new exploration licences offshore Sarawak, together with Block SK408, amount to just under 10,000 square kilometres of new acreage, expanding Shell's heartland and enabling further exploration in the Luconia/North Luconia provinces. Offshore Sabah, Shell signed a PSC to access Block SB311 with a non-operated position.

#### **NEW ZEALAND**

In December 2012, Shell Great South Basin Ltd (operator) and partners were awarded the exploration licence for block 12GS2 in the Great South Basin. The permit area lies directly east of Shell's PEP50119 block.



#### RUSSIA

In May 2012, a second block was acquired by Shell in the Timan Pechora basin. Shell also won the Arkatoisky block, covering 1,500 square kilometres in the Yamalo-Nenets Autonomous Okrug in West Siberia, in an auction held in October. It is Shell's first exploration block in this region of Siberia. In December, Shell successfully bid for the Lenzitsky block in the West Siberian Yamal-Nenets region.

#### **SOUTH AFRICA**

In February 2012, Shell signed the exploration right agreement, launching the first three-year period of exploration in the deep-water Orange Basin off the west coast of South Africa.

#### **TANZANIA**

In June 2012, Shell farmed in to Petrobras' deep-water Block 8 with a non-operating 50% share.

#### **UKRAINE**

In August 2012, the Ukrainian government selected a partnership including ExxonMobil (operator), Shell (35% equity), OMV Petrom and NAK as winner of the production-sharing agreement tender for the Skifska block in deep water in the Black Sea. In May, Shell was awarded the Yuzivska licence covering almost 8,000

square kilometres of shale gas acreage in the prospective Dnieper-Donetsk basin.

#### USA

Shell acquired additional liquids-rich shale and shale-gas acreage in Appalachia, in the Permian Basin, and in the Niobrara, Mississippi Lime, and Wolcamp plays. Shell also accessed Gulf of Mexico sale blocks in Lease Sale 218 and 216/222 in the Gulf of Mexico. Shell was the successful bidder for 27 deep-water blocks.

# PROVED RESERVES

PROVED OIL AND GAS RESERVES ATTRIBUTABLE TO ROYAL DUTCH SHELL PLC SHAREHOLDERS BILLION BOE				LION BOE	
	2012	2011	2010	2009	2008
Organic reserves additions	1.0[A]	1.5[A]	1.6[A]	3.2[A]	1.1[B]
Production	1.2	1.2	1.2	1.2	1.2
Total proved reserves	13.6	14.2	14.2	14.1	11.9

- [A] Excluding acquisitions, divestments and year-average price impact.
- [B] Excluding acquisitions, divestments and year-end price impact.

In 2012, Shell added 542 million boe of SEC proved oil and gas reserves before accounting for the year's production. At the end of the year, total proved oil and gas reserves excluding non-controlling interest were 13,556 million boe (9,855 million boe for Shell subsidiaries and 3,701 million boe for equity-accounted investments). Reserves life (an estimate of how many years it would take to exhaust the current proved reserves at the current level of production) decreased from 11.8 years at the end of 2011 to approximately 11 years at the end of 2012. Reserves life is up from 2008, when we had 10 years of reserves.

The Reserves Replacement Ratio for Shell subsidiaries and equity-accounted investments was 44% in 2012 (and 84% over the last three years). Excluding acquisitions, divestments and price effects, the ratio was 85% in 2012, and 115% in the period 2010–2012.

Significant oil and natural gas liquids (NGL) proved reserves additions in 2012 were from revisions and reclassifications from field performance studies and development activities in Asia (270 million barrels, primarily in Brunei, Iraq, Kazakhstan, Malaysia, Oman, Russia and United Arab Emirates), Africa (95 million barrels, primarily in Gabon and Nigeria), the USA (80 million barrels) and Canada (131 million barrels), and from the purchase of minerals in place in Europe (56 million barrels, in Norway and the UK).

Significant additions in natural gas reserves came from field extensions and discoveries in the USA (393 thousand million scf), and from revisions and reclassifications in Asia (284 thousand million scf, primarily in Brunei and Russia). These additions were offset by significant reductions in proved natural gas reserves from revisions and reclassifications associated with lower

commodity prices in the USA (1,076 thousand million scf) and Canada (683 thousand million scf), and sales of minerals in place in Oceania (303 thousand million scf, in Australia).

Proved reserves can be either developed or undeveloped. Subsidiaries' proved reserves at December 31, 2012, were divided into 66% developed and 34% undeveloped on a barrel of oil equivalent basis. For the Shell share of equity-accounted investments, the proved reserves were divided into 81% developed and 19% undeveloped.

# **PRODUCTION**

Production in 2012 was 3,262 thousand boe/d compared with 3,215 thousand boe/d in 2011. Liquids production was down 2% and natural gas production increased by 5% compared with 2011. Excluding the impact of divestments and exits, production volumes in 2012 were 3% higher than in 2011.

In 2012, hydrocarbon production from new start-ups and the continuing ramp-up of new projects more than offset the impact of field declines, and the impact of divestments and exits. There was also further upside from new wells and improved reliability compared with 2011, partially offset by changes in contractual entitlements and other non-operational factors.

Production was mainly driven by the continued ramp-up of new projects, notably our Pearl GTL plant in Qatar, the start-up of the Pluto LNG Project in Australia, and the first full year of production from Qatargas 4. Further additions also came from new start-ups such as Harweel in Oman, and the early first production from Gumusut-Kakap in Malaysia.

# INTEGRATED GAS

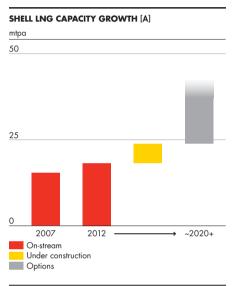
Strong growth in gas markets is a major opportunity for Shell. Our integrated gas earnings have more than trebled over the last five years, reaching \$9 billion in 2012 or about 45% of Upstream earnings. This was mainly driven by several large liquefied natural gas (LNG) and gas-toliquids (GTL) projects that came on-stream, including Pearl GTL, Pluto LNG Train 1 (Woodside), Qatargas 4 and Sakhalin-2. Integrated gas earnings incorporate LNG. including LNG marketing and trading, and GTL operations. In addition, the associated upstream oil and gas production activities from the Sakhalin-2, North West Shelf, Pluto LNG Train 1 (Woodside), Qatargas 4 and Pearl GTL projects are included in integrated gas earnings. Power generation and coal gasification activities are also included in integrated gas.

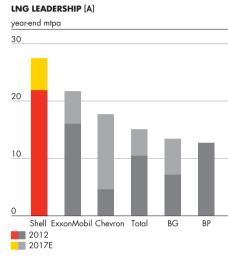
The Prelude floating LNG (FLNG) project as well as the Greater Western Flank Phase A, Gorgon LNG Trains 1-3, North Rankin 2 and Wheatstone LNG projects are currently under construction and are expected to come on-stream within the next few years. Shell is also considering GTL and LNG

options to monetise natural gas in North America. These would be projects that involve the entire natural gas value chain and so play very much to Shell's strengths as an integrated player.

#### LNG

Our expertise in the LNG industry is based on the more than 45 years of technical advice that we have provided for gas liquefaction plants around the world – including the world's first commercial plant, which came on-stream in 1964 in Algeria. LNG is fast becoming a truly global commodity and will continue its rapid expansion in the years ahead, with global demand potentially doubling to 400 mtpa by 2020 and 500 mtpa by 2025. This will be driven by the growing gas import needs of China, India, the Middle





[A] Includes feedgas from non-integrated ventures.

[A] Projects in operation or under construction.

#### GLOBAL INTEGRATED GAS PORTFOLIO [A]



[A] As of March 2013.



← The Pearl GTL plant in Qatar illustrates our large-scale project capabilities.

East and Europe – but also by new importers such as Malaysia, the Philippines, Singapore, Thailand and Vietnam.

At Shell, we are proud of our leadership in this sector of the industry. In 2012, ventures in which Shell participated supplied as much as 35% of global LNG. We have about 22 mtpa of Shell-share liquefaction capacity currently in operation in Australia, Brunei, Malaysia, Nigeria, Oman, Qatar and Russia. Qatargas 4, a joint venture between Qatar Petroleum (70%) and Shell (30%), was brought on-stream in early 2011 with a single mega-train delivering approximately 7.8 mtpa of LNG and a peak production of 280 thousand boe/d. The project opened up new markets for Qatari LNG in China and Dubai, with agreements signed in 2008. Our total LNG sales volume in 2012 was 20.2 million tonnes – up 7% from 2011. This increase mainly reflected the increase in sales volumes from Qatargas 4 and the Pluto LNG Project. Sales volumes were also

higher from Nigeria LNG, helped by a stable gas supply, and from the Sakhalin-2 project, where production exceeded 10 mtpa.

Three LNG projects are currently under construction in Australia, with capacity totalling about 7 mtpa: Prelude FLNG (Shell interest 67.5%), Gorgon Trains 1-3 (25%) and Wheatstone (6.4%). We are also assessing additional future options with more than 20 mtpa of capacity, with projects involving: Arrow Energy; Gorgon Train 4; the Browse and Greater Sunrise fields offshore Australia; the Abadi field of Indonesia; and LNG Canada.

In February 2013, Shell agreed to acquire part of Repsol S.A.'s LNG portfolio, including supply positions in Peru and Trinidad & Tobago, for a cash consideration of \$4.4 billion. Shell will also assume and consolidate \$1.8 billion of balance sheet liabilities predominantly reflecting leases for LNG ship charters.

#### FLOATING LNG

We believe that floating liquefied natural gas (FLNG) will write the next chapter in the history of the industry. In the coming years, Shell will start to produce and liquefy natural gas at sea, enabling the development of gas resources ranging from clusters of smaller and more remote offshore fields to potentially larger fields. FLNG can open up new business opportunities for countries looking to develop their natural gas resources.

In May 2011, Shell announced the world's first final investment decision to build an FLNG facility. The facility will be used to develop the Prelude gas field, 200 kilometres off Australia's north-west coast (see also page 10). Prelude FLNG is the first of what we expect to be multiple Shell FLNG projects, and builds on our existing capability and LNG leadership.

#### GTL

Almost 40 years ago, Shell began researching how to convert natural gas into liquid fuels, lubricants and chemical feedstocks. In 1993, this gas-to-liquids (GTL) technology became a commercial reality when the Shell Middle Distillate Synthesis plant started up in Bintulu, Malaysia. In total, Shell has filed more than 3,500 patents covering all stages of the GTL process.

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The Rock River Wind Farm in Wyoming, USA, is one of Shell WindEnergy's 10 joint-venture projects.



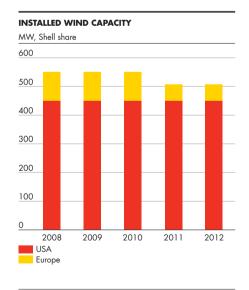
We used our proprietary technology and operational experience with GTL to build Pearl, Shell's and Qatar Petroleum's massive plant in Qatar. Ten times bigger than the Bintulu plant, Pearl is the world's largest GTL plant and one of the largest industrial developments in the world.

Pearl achieved full production at 90% or higher on both trains at the end of 2012, marking the completion of the ramp-up for this flagship project. The plant delivered its 100th cargo in December and produced GTL Jet fuel, the first new aviation fuel to be approved globally in over two decades. Pearl is currently producing and selling all products (GTL gasoil, GTL naphtha, normal paraffins, GTL base oil and GTL kerosene) from its product slate.

At peak production capacity, Pearl takes 320 thousand boe/d of gas and turns it into 140 thousand boe/d of GTL products and 120 thousand boe/d of natural gas liquids and ethane. This amounts to almost 8% of Shell's worldwide production, making it the company's main engine for growth in 2012. Over its lifetime, Pearl will process about three billion boe from the world's largest single non-associated gas field, the North Field, which contains more than 900 tcf of gas.

# WIND

Shell WindEnergy has strong operational and development capabilities, with 10 joint-venture projects: eight in North America and two in Europe (Shell share of total capacity is approximately 50%). The projects' generating capacity totals about 1,000 megawatts – enough electricity to meet the annual requirements of 300,000 homes. Generating that amount of electricity with conventional power plants would have emitted about 3 million tons of CO<sub>2</sub>. Almost 900 MW of the total capacity came from the 722 wind turbines of the eight US projects.



### **EUROPE**

#### **HIGHLIGHTS**

- Shell has been a leading player in the North Sea for several decades, and is also the operator of the NAM joint venture, the largest hydrocarbon producer in the Netherlands.
- Production in Europe amounted to about 800 thousand boe/d in 2012, and we invested about \$3 billion in 2012 for sustainable production in the future.
- After-tax earnings from the oil and gas exploration and production operations of our subsidiaries and equity-accounted investments in the region were \$4.2 billion.
- We are participating in the development of the Clair Phase 2 and Schiehallion Redevelopment projects in the UK, and the Corrib project in Ireland. We have increased our stakes in the offshore Beryl, Schiehallion and Draugen fields.

KEY FIGURES		
	2012	% of total
Total production (thousand boe/d) [A]	790	24%
Liquids production (thousand b/d) [A]	219	15%
Natural gas production (million scf/d) [A]	3,311	35%
Gross developed and undeveloped acreage (thousand acres)	14,935	6%
Proved oil and gas reserves excluding non-controlling interest (million boe) [B]	3,236	24%

- [A] Available for sale.
- [B] Includes proved reserves associated with future production that will be consumed in operations.

#### **DENMARK**

We hold a non-operating interest in a producing concession covering the majority of our activities in Denmark. The concession was granted in 1962 and will expire in 2042. Our interest reduced to 36.8% from 46% in July 2012, when the government entered the partnership with a 20% interest and the government profit share of 20% was abolished.

#### IRELAND

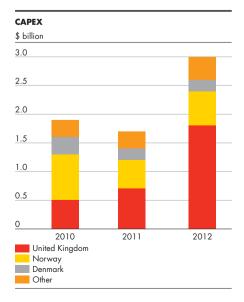
We are the operator of the Corrib Gas project (Shell interest 45%), which is currently at an advanced stage of construction. At peak production, Corrib is expected to supply a significant proportion of the Ireland's natural gas needs.

#### THE NETHERLANDS

Shell and ExxonMobil are 50:50 shareholders in Nederlandse Aardolie Maatschappij B.V. (NAM), the largest hydrocarbon producer in the Netherlands. An important part of NAM's gas production comes from the onshore Groningen gas field, in which the Dutch government has a 40% interest, with NAM holding the remaining 60%. NAM also has a 60% interest in the Schoonebeek oil field, which has been redeveloped using enhanced oil recovery (EOR) technology. NAM also operates a significant number of other onshore gas fields and offshore gas fields in the North Sea.

#### **NORWAY**

We are a partner in more than 20 production licences on the Norwegian continental shelf and are the operator in six of these, including the Ormen Lange gas field (Shell interest 17%) and the Draugen oil field, where we increased our interest to 44.6%. We have interests in the Troll, Gjøa, and Kvitebjørn fields, and have further interests in the Valemon field development and various other potential development assets.





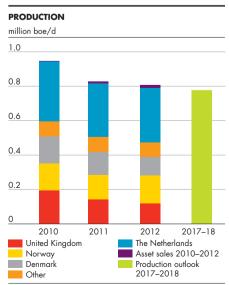
↑ A new well is drilled by NAM, the largest hydrocarbon producer in the Netherlands.

#### **UNITED KINGDOM**

We operate a significant number of our interests on the UK Continental Shelf on behalf of a 50:50 joint venture with ExxonMobil. Most of our UK oil and gas production comes from the North Sea. We hold various non-operated interests in the Atlantic Margin area, principally in the West of Shetlands area. We have increased our interest in the non-operated Schiehallion field to 55%, and in the Beryl area fields, with interests ranging from 25% to 66%.

#### **REST OF EUROPE**

Shell also has interests in Albania, Austria, Germany, Greece, Hungary, Italy, Slovakia, Spain and Ukraine.



# **AFRICA**

#### **HIGHLIGHTS**

- Shell is the largest international oil company in Nigeria with interests in major onshore, offshore and LNG activities.
- Production in Africa amounted to more than 400 thousand boe/d in 2012, mostly from our operations in Nigeria.
- After-tax earnings from the oil and gas exploration and production operations of our subsidiaries in the region were \$3.4 billion.
- We added new exploration positions in South Africa and Tanzania in 2012.
- We are participating in the development of the Bonga North West, Forcados Yokri and Southern Swamp projects in Nigeria.

KEY FIGURES		
	2012	% of total
Total production (thousand boe/d) [A]	442	14%
Liquids production (thousand b/d) [A]	290	19%
Natural gas production (million scf/d) [A]	881	9%
Gross developed and undeveloped acreage (thousand acres)	35,832	13%
Proved oil and gas reserves excluding non-controlling interest (million boe) [B]	1,057	8%

[A] Available for sale.

[B] Includes proved reserves associated with future production that will be consumed in operations.



↑ A floating production storage and offloading vessel at the Bonga field, 120 kilometres offshore Nigeria.

#### **EGYPT**

We have a 50% interest in the Badr El-Din Petroleum Company (Bapetco), a joint venture with the Egyptian General Petroleum Corporation. Bapetco carries out field operations in the West Desert, where we have interests in the BED, NEAG, NEAG Extension, West Sitra, Sitra, Obaiyed and Alam El Shawish West concession areas. In addition, we have interests in two BP-operated offshore concessions: North Damietta Offshore and North Tineh Offshore.

#### **GABON**

We have interests in eight onshore permits (one mining concession and seven PSCs), and three offshore exploration permits in addition to one of the two country export terminals. Two of the non-operated permits (Coucal and Avocette) have been converted into PSCs as of January 1, 2011.

#### NIGERIA

Shell-share production in Nigeria was approximately 365 thousand boe/d in 2012 compared with approximately 385

thousand boe/d in 2011. Security, crude oil theft and flooding in the Niger Delta were significant challenges in 2012.

#### Onshore

The Shell Petroleum Development Company of Nigeria Ltd (SPDC) is the operator of a joint venture (Shell interest 30%) that holds more than 25 Niger Delta onshore oil mining leases (OMLs), which expire in 2019. To provide funding, modified carry agreements are in place for certain key projects and a bridge loan was drawn down by the Nigerian National Petroleum Company (NNPC) in 2010. The modified carry agreements are being reimbursed, and in December 2012 NNPC repaid the bridge loan with interest. New financing agreements with NNPC are under discussion and are expected to be put in place during 2013.

We have a 30% interest in the Gbaran-Ubie integrated oil and gas project in Bayelsa State, which delivered 0.9 billion scf/d of gas in 2012. Gas from Gbaran-Ubie is delivered to Nigeria LNG Ltd (NLNG) for export. In 2012, we sold our 30% interests in OMLs 30, 34 and 40 for a consideration of \$1.1 billion.

#### Offshore

Our main offshore deep-water activities are carried out by Shell Nigeria Exploration and Production Company (Shell interest 100%) which holds interests in three deepwater blocks. We operate two of the blocks, including the Bonga field 120 kilometres offshore. Deep-water offshore activities are typically governed through production sharing contracts (PSCs). SPDC also holds an interest in six shallow-water offshore leases, of which five expired on November 30, 2008. However, SPDC satisfied all the requirements of the Nigerian Petroleum Act to be entitled to an extension. Currently, the status quo is maintained following a court order issued on November 26, 2008. SPDC is pursuing a negotiated solution with the federal government of Nigeria. Production from the EA field, in one of the disputed leases, continued throughout 2012.

#### LNG

Shell has a 25.6% interest in NLNG, which operates six LNG trains with a total capacity of 22 mtpa. NLNG continued production near full capacity during 2012.

#### **REST OF AFRICA**

Shell also has interests in Benin, Ghana, Libya, South Africa, Tanzania and Tunisia.

# ASIA (INCLUDING MIDDLE EAST AND RUSSIA)

#### **HIGHLIGHTS**

- Shell is the industry leader in integrated gas in Asia, with a major LNG portfolio across the region and the world's largest GTL plant in Qatar.
- We are active in our existing heartlands of Malaysia and Brunei, and are investing for growth in China.
- Production in Asia amounted to more than 1.1 million boe/d in 2012.
- After-tax earnings from the oil and gas exploration and production operations of our subsidiaries and equity-accounted investments in the region were \$5.8 billion.
- We are participating in the development of nine key projects in the region: Amal in Oman; SAS and Bab Thamama G/Bab Habshan-2 in the United Arab Emirates; Gumusut-Kakap, Petai, Malikai and Sabah Gas Kebabangan in Malaysia; Kashagan Phase 1 in Kazakhstan; and Majnoon FCP in Iraq.

KEY FIGURES		
	2012	% of total
Total production (thousand boe/d) [A]	1,126	35%
Liquids production (thousand b/d) [A]	652	44%
Natural gas production (million scf/d) [A]	2,752	29%
Gross developed and undeveloped acreage (thousand acres)	80,449	30%
Proved oil and gas reserves excluding non-controlling interest (million boe) [B]	4,517	33%

- [A] Available for sale.
- [B] Includes proved reserves associated with future production that will be consumed in operations.

#### **BRUNEI**

Shell and the Brunei government are 50:50 shareholders in Brunei Shell Petroleum Company Sendirian Berhad (BSP). BSP holds long-term oil and gas concession rights onshore and offshore Brunei, and sells most of its natural gas production to Brunei LNG Sendirian Berhad (BLNG, Shell interest 25%). BLNG was the first LNG plant in the Asia-Pacific region, and sells most of its LNG on long-term contracts to customers in Asia.

We are the operator for the Block A concession (Shell interest 53.9%), which is under exploration and development. We have a 35% interest in the Block B concession, where gas and condensate are produced from the Maharaja Lela Field. In addition, we have a 12.5% interest in exploration Block CA-2 under a PSC.

#### **CHINA**

We operate the onshore Changbei tight-gas field under a PSC with PetroChina. The PSC was amended in July 2012 for developing tight gas in different geological layers of the same block. Shell and PetroChina have also agreed to appraise, develop and produce tight gas in the Jinqiu block under a PSC that expires in 2040 (Shell interest 49%), and signed a PSC in March 2012 for shale-gas exploration, development

and production in the Fushun Yongchuan block (Shell interest 49%), both in Sichuan. Shell and PetroChina are also assessing opportunities in coalbed methane in the Ordos Basin.

In 2012, Shell became a party to the Zitong PSC for tight gas exploration, development and production in Sichuan (Shell interest 44.1%). Shell has agreed with Chinese National Offshore Oil Corporation to appraise and potentially develop two offshore oil and gas blocks in the Yinggehai Basin under a PSC signed in July 2012 (Shell interest 49%).

#### INDONESIA

We have a 30% participating interest in the offshore Masela block where INPEX Masela is the operator. The Masela block contains the Abadi gas field. The operator has currently selected a floating LNG (FLNG) concept for the field's first development phase.

#### IRAN

In compliance with international sanctions against Iran Shell halted its upstream commercial activities in Iran in 2010 and ceased buying oil from Iran in the first quarter of 2012.

#### IRAG

We have a 45% interest in the Majnoon oil field that we operate under a technical service contract that expires in 2030. The other Majnoon shareholders are Petronas (30%) and the Iraqi government (25%), which is represented by the Missan Oil Company, Mainoon is located in southern Iraq and is one of the world's largest oil fields. The first phase of the development is planned to bring production to approximately 175 thousand b/d from the level of 45 thousand b/d when the contract entered into effect in March 2010. We also hold a 15% interest in the West Qurna 1 field. At the end of 2012, production was approximately 460 thousand b/d. According to the provisions of both contracts, Shell's equity entitlement volumes will be lower than the Shell interest implies.

In 2012, Shell continued to work in establishing the Basrah Gas Company, a joint venture between Shell (44%), the South Gas Company (51%) and Mitsubishi Corporation (5%). The Basrah Gas Company will gather, treat and process raw gas produced from the Rumaila, West Qurna 1 and Zubair fields. Currently, an estimated 700 million scf/d of gas is flared because of a lack of infrastructure to collect and process it. The processed natural gas and associated products, such as condensate and liquefied petroleum gas (LPG), will be sold primarily to the domestic market with the potential to export any surplus.

#### **KAZAKHSTAN**

We have a 16.8% interest in the offshore Kashagan field, where the North Caspian Operating Company is the operator. This shallow-water field covers an area of approximately 3,400 square kilometres. Phase 1 development of the field is expected to lead to plateau production of approximately 300 thousand boe/d, increasing further with additional phases of development. NC Production Operations Company, a joint venture between Shell and KazMunayGas, will manage production operations. First production is expected to start in 2013.

We have an interest of 55% in the Pearls PSC, covering an area of approximately 900 square kilometres located in the Kazakh sector of the Caspian Sea that includes two oil discoveries (Auezov and Khazar) and several exploration prospects.



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The Kashagan field offshore Kazakhstan is a 300 thousand boe/d high sulphur development. Shell will be the operator from first production.

#### MALAYSIA

We produce oil and gas located offshore Sabah and Sarawak under 19 PSCs, in which our interests range from 30% to 85%.

In Sabah we operate four producing offshore oil fields with interests ranging from 50% to 80% as part of the 2011 North Sabah EOR PSC and SB1 PSC (the latter expired at the end of December 2012). We also have additional interests ranging from 30% to 50% in PSCs for the exploration and development of five deep-water blocks. These include the unitised Gumusut-Kakap deep-water field (Shell interest 33%) and the Malikai field (Shell interest 35%). Both these fields are currently being developed with Shell as the operator.

In Sarawak we are the operator of 20 gas fields with interests ranging from 37.5% to 70%. Nearly all of the gas produced is supplied to Malaysia LNG in Bintulu where we have a 15% interest in each of the Dua and Tiga LNG plants. We also have a 40% interest in the 2011 Baram Delta EOR PSC and a 50% interest in Block SK-307.

In 2012, we signed five new exploration PSCs, deep-water blocks 2B, SK318,

SK319 and SK408, all offshore Sarawak, and SB311, offshore Sabah.

We also operate a GTL plant (Shell interest 72%), which is adjacent to the Malaysia LNG facilities in Bintulu. Using Shell technology, the plant converts natural gas into high-quality middle distillates, drilling fluids, waxes and other speciality products.

#### **OMAN**

We have a 34% interest in Petroleum Development Oman (PDO), the operator of an oil concession expiring in 2044. In 2012, production began at its Harweel EOR project, which is expected to produce approximately 30 thousand boe/d at peak production. We are also participating in the development of the Mukhaizna oil field (Shell interest 17%) where steam flooding, an EOR method, is being applied on a large scale.

#### **QATAR**

Pearl in Qatar is the world's largest GTL plant. Shell operates the plant under a development and production-sharing contract with the government of Qatar. The fully integrated facility includes production, transport and processing of approximately

1.6 billion scf/d of wellhead gas from Qatar's North Field with installed capacity of around 140 thousand boe/d of GTL and 120 thousand boe/d of NGL and ethane. Ramp-up of the project was completed in the fourth quarter of 2012. The plant delivered its 100th cargo in mid-December and produced GTL Jet fuel, with its first commercial market introduction in January 2013.

We have a 30% interest in Qatargas 4, which comprises integrated facilities to produce approximately 1.4 billion scf/d of natural gas from Qatar's North Field, an onshore gas-processing facility and an LNG train with a collective production capacity of 7.8 mtpa of LNG and 70 thousand boe/d of NGL. The train delivered its first LNG in 2011 and has been operating at full capacity in 2012. The LNG is shipped mainly to markets in North America, China, Europe and the United Arab Emirates.

We are the operator of Block D under the terms of an exploration and production-sharing contract with Qatar Petroleum, representing the national government. We have a 75% interest, with PetroChina holding the remaining 25% interest.



#### RUSSIA

We have a 27.5% interest in Sakhalin-2, one of the world's largest integrated oil and gas projects. Located in a subarctic environment, the project produced approximately 335 thousand boe/d in 2012. Following optimisation of the LNG plant, production from its two trains exceeded 10 mtpa for the year.

We have a 50% interest in the Salym fields in western Siberia, where production was approximately 155 thousand boe/d during 2012. We also have a 100% interest in four exploration and production licences. They are for the East Talotinskiy area in the Nenets Autonomous District, the Barun-Yustinsky block in Kalmykia and the Arkatoitsky and the Lenzitsky blocks in the Yamalo Nenets Autonomous District. We also have an exploration licence in the North-Vorkutinsky area in the Komi Republic.

#### **UNITED ARAB EMIRATES**

In Abu Dhabi we hold a concessionary interest of 9.5% in the oil and gas operations run by Abu Dhabi Company for Onshore Oil Operations (ADCO). The

licence expires in 2014. We also have a 15% interest in the licence of Abu Dhabi Gas Industries Limited (GASCO), which expires in 2028. GASCO exports propane, butane and heavier-liquid hydrocarbons that it extracts from the wet natural gas associated with the oil produced by ADCO.

# REST OF ASIA (INCLUDING THE MIDDLE EAST AND RUSSIA)

Shell also has interests in India, Japan, Jordan, Kuwait, the Philippines, Saudi Arabia, Singapore, South Korea and Turkey. We suspended all exploration and production activities in Syria in December 2011.

The Majnoon oil field in Iraq is one of the largest in the world. We should reach the first commercial production target of 175 thousand boe/d in 2013.

# **OCEANIA**

#### **HIGHLIGHTS**

- Australia is a key growth country for Shell with major investment currently underway to develop about 7 mtpa of LNG capacity in the next five years.
- We are building the world's largest FLNG facility for the Prelude field offshore
   Australia, and participating in four other key projects: Gorgon LNG Trains 1-3; North
   Rankin 2; North West Shelf Gas Greater Western Flank Phase A; and Wheatstone
   LNG.
- In 2012, the 4.3 mtpa capacity Pluto LNG Project (Shell indirect share 21%) delivered its first LNG cargo.
- Production in Oceania amounted to nearly 200 thousand boe/d in 2012.
- After-tax earnings from the oil and gas exploration and production operations of our subsidiaries and equity-accounted investments in the region were \$3.0 billion.

KEY FIGURES		
	2012	% of total
Total production (thousand boe/d) [A]	179	5%
Liquids production (thousand b/d) [A]	45	3%
Natural gas production (million scf/d) [A]	777	8%
Gross developed and undeveloped acreage (thousand acres)	72,278	27%
Proved oil and gas reserves excluding non-controlling interest (million boe) [B]	1,314	10%

- [A] Available for sale.
- [B] Includes proved reserves associated with future production that will be consumed in operations.

#### **AUSTRALIA**

We have interests in offshore production and exploration licences in the North West Shelf (NWS) and Greater Gorgon areas of the Carnarvon Basin, as well as in the Browse Basin and Timor Sea. Some of these interests are held directly and others indirectly through a shareholding of approximately 23% in Woodside Petroleum Ltd (Woodside). All interests in Australian assets quoted below are direct interests.

Woodside is the operator of the Pluto LNG Project which produced its first LNG in 2012. Woodside is also the operator on behalf of six joint-venture participants of the NWS gas, condensate and oil fields, which produced more than 470 thousand boe/d in 2012. Shell provides technical support for the NWS development.

We have a 50% interest in Arrow Energy Holdings Pty Limited (Arrow), a Queensland-based joint venture with PetroChina. Arrow owns coalbed methane assets, a domestic power business and the site for a proposed LNG plant on Curtis Island, near Gladstone. In January 2012, Arrow completed the acquisition of coalbed methane company Bow Energy Ltd (Shell-share consideration \$0.3 billion).

We have a 25% interest in the Gorgon LNG project, which involves the development of some of the largest gas discoveries to date in Australia, beginning with the offshore Gorgon (Shell interest 25%) and Jansz-lo fields (Shell interest approximately 20%). It includes the construction of a 15.3 mtpa LNG plant on Barrow Island.

We are the operator of a permit in the Browse Basin in which two separate gas fields were found: Prelude in 2007, and Concerto in 2009. We are developing these fields on the basis of our innovative FLNG technology. The Prelude FLNG project is expected to produce about 110 thousand boe/d of natural gas and NGL, delivering approximately 3.6 mtpa of LNG, 1.3 mtpa of condensate and 0.4 mtpa of LPG. During 2012, we commenced construction of the Prelude FLNG project and completed the sale of a 17.5% interest to INPEX and a 10% interest to KOGAS. We also completed the sale of a 5% interest to CPC Corporation in the first quarter of 2013, reducing our interest to 67.5%. We formed a joint venture to operate the Crux gas and condensate field (Shell interest 82%). We also operate the AC/ P41 block (Shell interest 75%).

We are a partner in the Browse joint ventures covering the Brecknock, Calliance

and Torosa gas fields. During 2012, we increased our interest in the West Browse joint venture to 35% and in the East Browse joint venture to 25%. The Browse resources are being assessed for development on the basis of an LNG export project.

In the Timor Sea we have a 26.6% interest in the Sunrise gas field. The joint-venture partners have selected FLNG as the preferred development concept for Sunrise. The development is subject to approval from both the Australian and Timor-Leste governments.

Shell is a partner in both Shell-operated and non-operated exploration joint ventures in multiple basins including the Bonaparte, Exmouth Plataeu, Greater Gorgon, Outer Canning and South Exmouth. We also hold a 6.4% interest in the Wheatstone LNG project, which includes the construction of two LNG trains with a combined capacity of 8.9 mtpa.

#### **NEW ZEALAND**

We have an 83.8% interest in the offshore Maui gas field, a 50% interest in the onshore Kapuni gas field and a 48% interest in the offshore Pohokura gas field. The gas produced is sold domestically, mainly under long-term contracts. Shell has interests in other exploration licence areas in the Taranaki Basin and an interest in two exploration permits in the Great South Basin (50% and 59% interest).

# **AMERICAS**

#### **HIGHLIGHTS**

- Shell is adding to its established deep-water position with new fields in the Gulf of Mexico and offshore South America. Onshore, Shell has built major acreage positions in liquids-rich shales and in tight gas, and is progressing its potential for an integrated gas value chain.
- Production in the Americas amounted to more than 700 thousand boe/d in 2012.
- After-tax earnings from oil and gas exploration and production operations of our subsidiaries and equity-accounted investments in the region were \$0.7 billion.
- We are participating in the development of six key projects in North and South America: AOSP Debottlenecking; BC-10 Phase 2; Cardamom; Mars B, West Boreas & South Deimos; North American tight-gas projects; and North American liquids-rich shales projects.

KEY FIGURES		
	2012	% of total
Total production (thousand boe/d) [A]	725	22%
Liquids production (thousand b/d) [A]	282	19%
Natural gas production (million scf/d) [A]	1,728	18%
Synthetic crude oil production (thousand b/d) [A]	125	4%
Bitumen production (thousand b/d) [A]	20	1%
Gross developed and undeveloped acreage (thousand acres)	65,479	24%
Proved oil and gas reserves excluding non-controlling interest (million boe) [B]	3,432	25%

- [A] Available for sale.
- [B] Includes proved reserves associated with future production that will be consumed in operations.

#### **NORTH AMERICA**

#### **CANADA**

We hold more than 2,200 mineral leases in Canada, mainly in Alberta and British Columbia. We produce and market natural gas, natural gas liquids (NGLs), synthetic crude oil and bitumen. In addition, we hold significant exploration acreage offshore. Bitumen is a very heavy crude oil produced through conventional methods as well as through enhanced oil-recovery methods. Synthetic crude oil is produced by mining bitumen-saturated sands, extracting the bitumen from the sands, and transporting it to a processing facility where hydrogen is added to produce a wide range of feedstocks for refineries.

#### Gas and liquids-rich shale

We hold rights to more than 10,000 square kilometres of conventional gas, tight gas and liquids-rich shale acreage. We own and operate four natural gas processing and sulphur-extraction plants in southern and south-central Alberta. During 2012, we continued to develop conventional gas, tight gas and liquids-rich shale fields in west-central Alberta and east-central British Columbia, through

drilling programmes and investment in infrastructure facilitating new production.

#### Synthetic crude oil

We operate the Athabasca Oil Sands Project (AOSP) in north-east Alberta as part of a joint venture (Shell interest 60%). The AOSP's bitumen production capacity is 255 thousand boe/d. The bitumen is transported by pipeline for processing at the Scotford Upgrader, which is operated by Shell and located in the Edmonton area, Alberta. The first phase of the AOSP Debottlenecking project comes online in 2013, and is expected to add an additional 10 thousand boe/d at peak production. We also took the final investment decision on the Quest Carbon Capture and Storage project (Shell interest 60%), which is expected to capture and permanently store more than 1 mtpa of CO<sub>2</sub> from the Scotford Upgrader underground.

Shell also holds a number of other minable oil sands leases in the Athabasca region with expiry dates ranging from 2018 to 2025. By completing a certain minimum level of development prior to their expiry, leases may be extended.

#### **Bitumen**

We produce and market bitumen in the Peace River area of Alberta, and have a steam-assisted gravity drainage project in operation near Cold Lake, Alberta. Additional heavy oil resources and advanced recovery technologies are under evaluation on approximately 1,200 square kilometres in the Grosmont oil sands area, also in northern Alberta.

#### Offshore

We have a 31.3% interest in the Sable Offshore Energy project, a natural-gas complex offshore eastern Canada. We also have a 100% operating interest in frontier deep-water acreage offshore Nova Scotia, a 20% non-operating interest in an exploration asset off the east coast of Newfoundland, and a number of exploration licences in the Mackenzie Delta in the Northwest Territories.

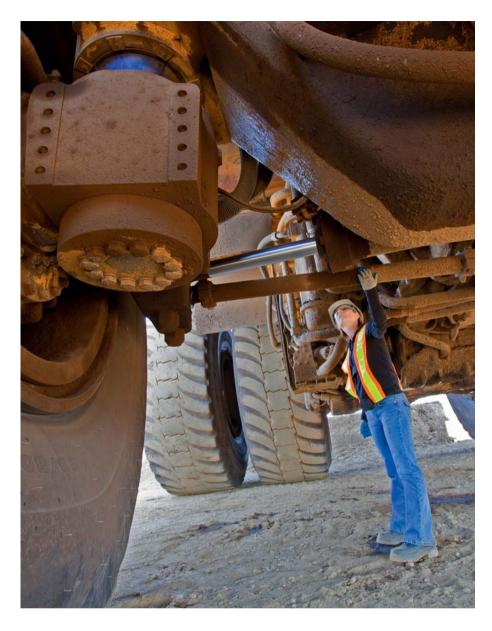
#### UNITED STATES OF AMERICA

We produce oil and gas in the Gulf of Mexico, heavy oil in California and primarily tight gas and associated liquid hydrocarbons in Louisiana, Pennsylvania, Texas and Wyoming. The majority of our oil and gas production interests are acquired under leases granted by the owner of the minerals underlying the relevant acreage (including many leases for federal onshore and offshore tracts). Such leases usually run on an initial fixed term that is automatically extended by the establishment of production for as long as production continues, subject to compliance with the terms of the lease (including, in the case of federal leases, extensive regulations imposed by federal law).

#### **Gulf of Mexico**

The Gulf of Mexico is the major production area in the USA, accounting for almost 50% of Shell's oil and gas production in the country. We have approximately 420 federal offshore leases in the Gulf of Mexico, about one-fifth of which are producing. Our share of production in the Gulf of Mexico averaged almost 190 thousand boe/d in 2012. Key producing assets are Auger, Brutus, Enchilada, Mars, NaKika, Perdido, Ram-Powell and Ursa.

We continued to grow our presence in the Gulf of Mexico, with the addition of two drilling rigs to our contracted offshore fleet in 2012. We also secured 24 blocks in the 2012 central lease sale for a sum of \$400 million.



# <del>(</del>

The Athabasca Oil Sands Project in north-east Alberta, Canada, has a bitumen production capacity of 255 thousand boe/d.

#### Onshore

We hold more than 15,000 square kilometres of tight-gas and liquids-rich shale acreage. This includes significant holdings in the Marcellus shale, centred on Pennsylvania in northeastern USA, the Eagle Ford shale formation in south Texas, the Sand Wash and Niobrara Shale in north-west Colorado, as well as the Mississippi Lime formation in south-central Kansas. In 2012, we also acquired approximately 2,200 square kilometres of mineral rights, with an additional 300 square kilometres linked to contractual conditions, in the Delaware Permian Basin in west Texas.

#### California

We hold a 51.8% interest in Aera Energy LLC (Aera), which holds assets in the San

Joaquin Valley and Los Angeles Basin areas of southern California. Aera operates more than 15,000 wells, producing about 130 thousand boe/d of heavy oil and gas.

#### Alaska

We hold more than 410 federal leases for exploration in the Beaufort and Chukchi seas in Alaska. During the 2012 drilling season, we drilled two exploratory wells, one each in the Beaufort and Chukchi seas. These wells are known as top holes as they do not go deep enough to reach hydrocarbon reservoirs. After drilling they were safely capped in accordance with regulatory requirements.

#### **REST OF NORTH AMERICA**

Shell also has interests in Greenland and Mexico.

#### **SOUTH AMERICA**

#### BRAZIL

We are the operator of several producing fields offshore Brazil. They include the Bijupirá and Salema fields (Shell interest 80%) and the BC-10 field (Shell interest 50%). We also operate one offshore exploration block in the Santos basin, BMS-54 (Shell interest 80%).

We have interests in two offshore exploration blocks in the Espirito Santo basins, BMES-23 and BMES-27, with interests of 20% and 17.5% respectively. Shell also operates five blocks in the São Francisco onshore basin area. In 2012, we divested our 40% interest in the offshore Block BS-4 in the Santos basin.

We also hold an 18% interest in Brazil Companhia de Gas de São Paulo (Comgás), a natural gas distribution company in the state of São Paulo.

#### **FRENCH GUIANA**

We are the operator of an exploration block in the 24,000 square kilometre deep-water Guyane Maritime Permit (Shell interest 45%).

#### **REST OF SOUTH AMERICA**

Shell also has interests in Argentina, Colombia, Guyana and Venezuela.

# **MAPS**

# **EUROPE**

#### ITALY

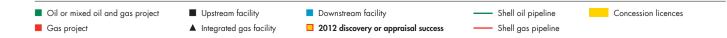


#### UKRAINE

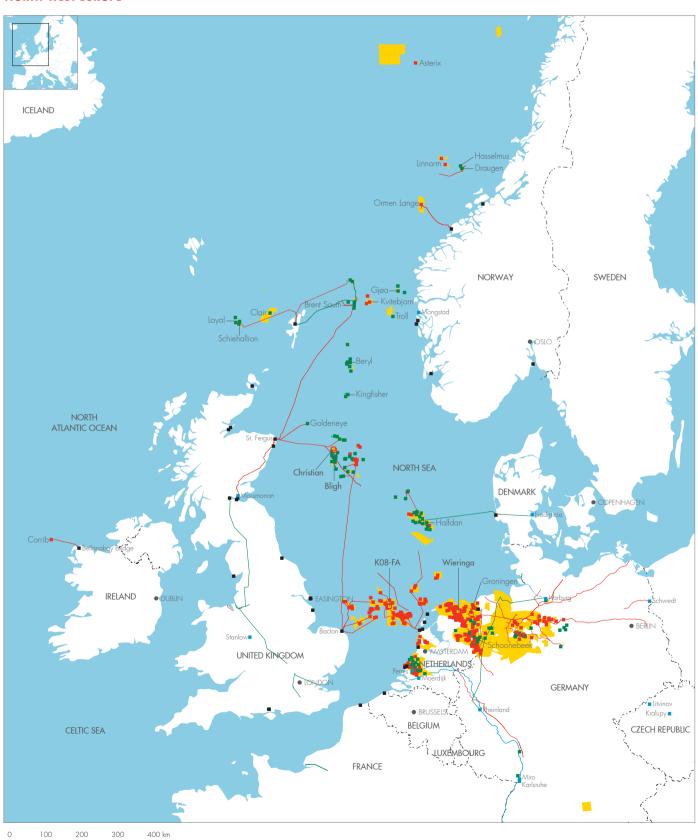


#### **ALBANIA**



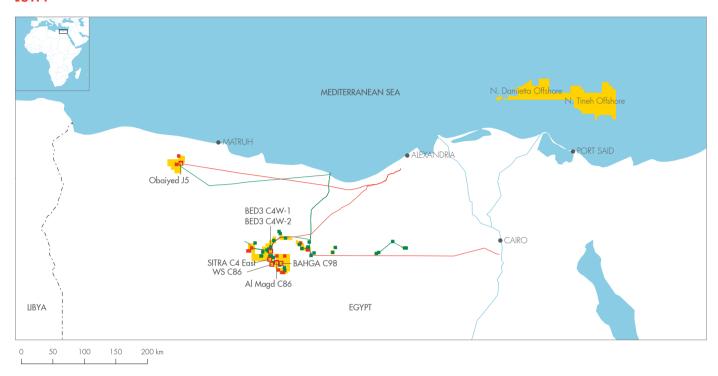


#### NORTH-WEST EUROPE

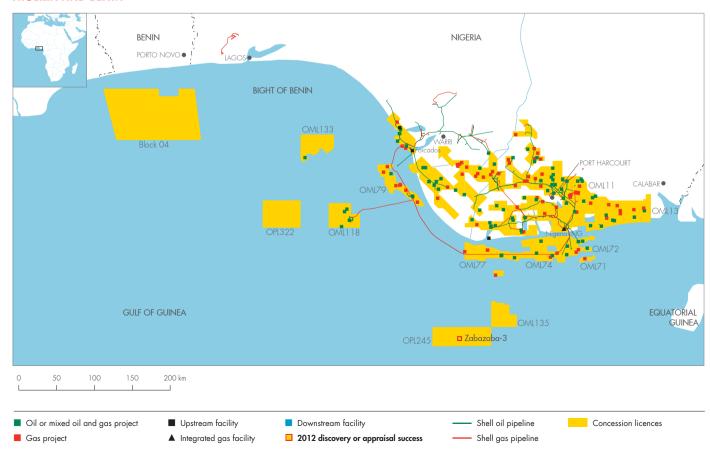


# **AFRICA**

#### **EGYPT**



#### **NIGERIA AND BENIN**



#### GABON



#### LIBYA AND TUNISIA



#### **TANZANIA**

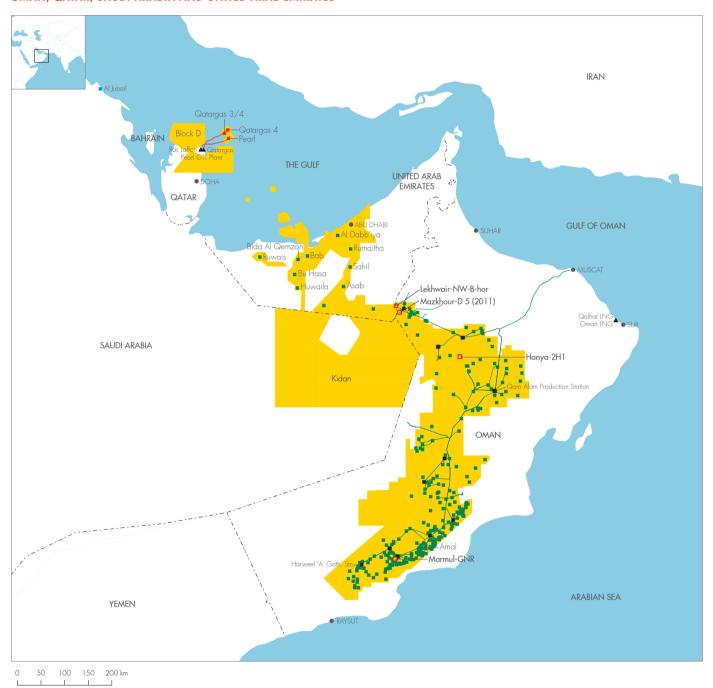


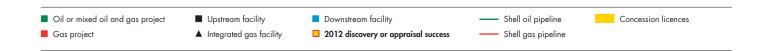
#### **SOUTH AFRICA**



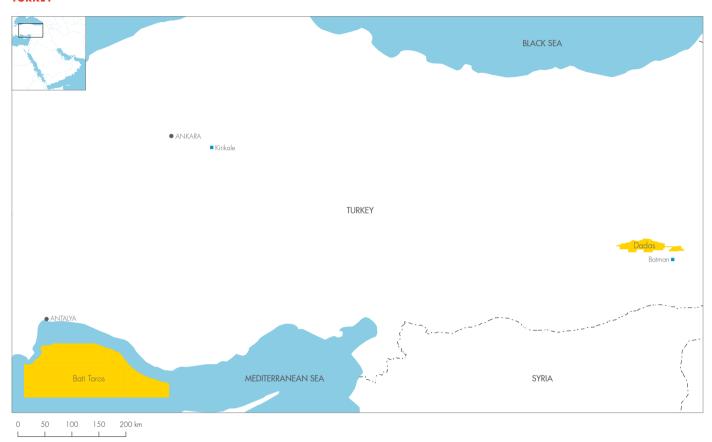
# ASIA

#### OMAN, QATAR, SAUDI ARABIA AND UNITED ARAB EMIRATES

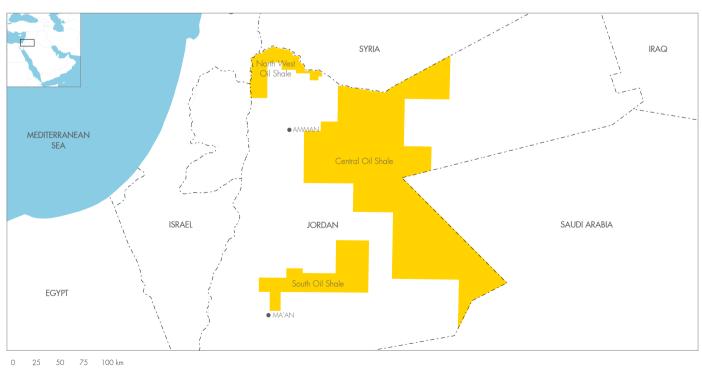




#### TURKEY



#### JORDAN



#### RUSSIA - SALYM



#### RUSSIA - SAKHALIN

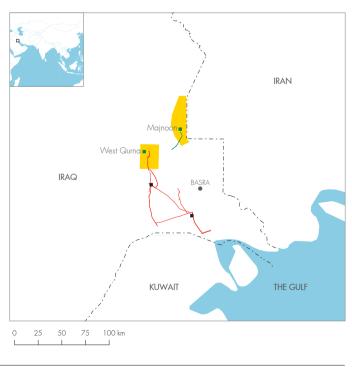


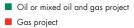
#### 0 50 100 150 200 km

#### KAZAKHSTAN AND RUSSIA



#### **IRAQ**





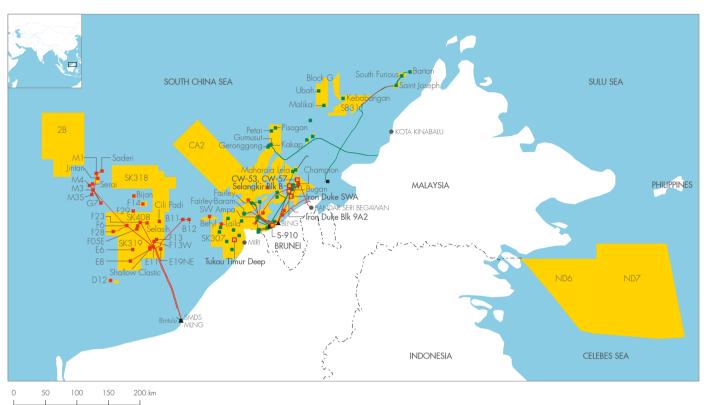
- Upstream facility
- ▲ Integrated gas facility
- Downstream facility

2012 discovery or appraisal success —

Shell oil pipelineShell gas pipeline

Concession licences

#### **BRUNEI AND EAST MALAYSIA**



#### **PHILIPPINES**

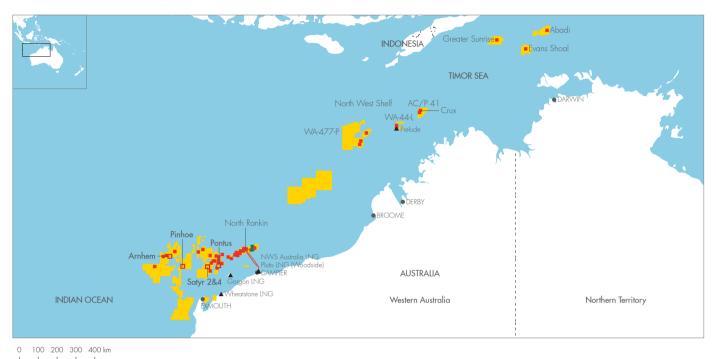
# SOUTH CHINA SEA PHILIPPINES San Martin Malampaya Destecado SC 38A SC 38A SAN JOSE DE BUENAVISTA SULU SEA

#### CHINA

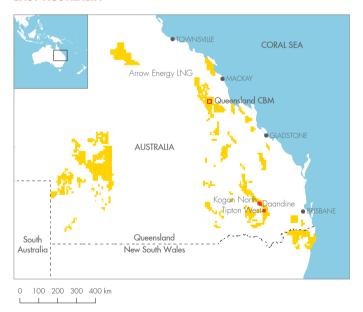


# **OCEANIA**

#### **WEST AUSTRALIA AND INDONESIA**

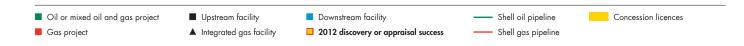


#### **EAST AUSTRALIA**



#### **NEW ZEALAND**



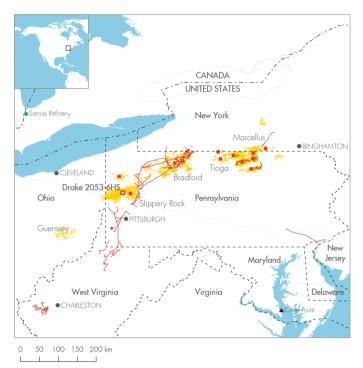


# **AMERICAS**

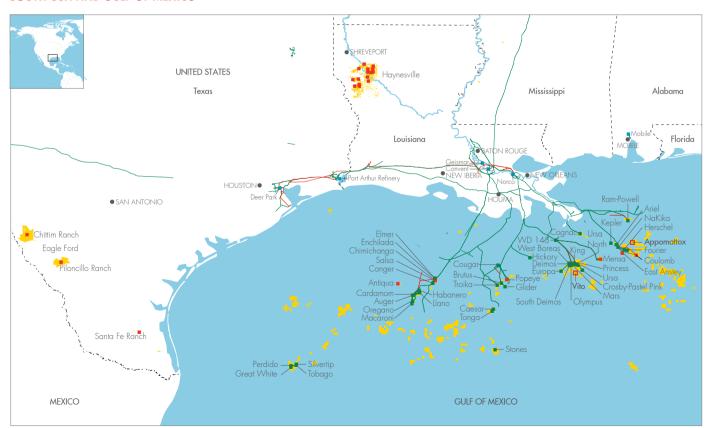
#### **NORTH-WEST USA**

#### CANADA UNITED STATES Washington North Dakota Montana Oregon Idaho Wyoming ▶Pinedale •CASPER Nebraska Colorado Nevada Utah Kansas WICHI California Öklahoma Arizona New Mexico Texas 📲 PASO 🙀 Pe PACIFIC **MEXICO** OCEAN 0 150 300 450 600 km

#### **NORTH-EAST USA AND CANADA**



#### **SOUTH USA AND GULF OF MEXICO**



0 50 100 150 200 km

#### ALASKA, YUKON AND NORTHWESTERN TERRITORIES

# CHUKCHI SEA UNITED STATES Alaska FAIRBANKS O 100 200 300 400 km

#### **NOVA SCOTIA**

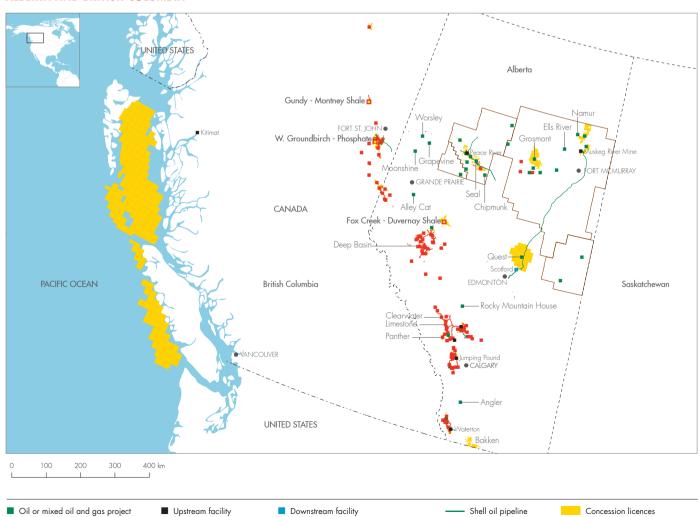


Designated oil sands area

- Shell gas pipeline

#### **ALBERTA AND BRITISH COLUMBIA**

Gas project



■ 2012 discovery or appraisal success

▲ Integrated gas facility

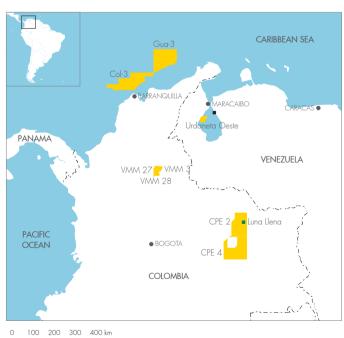
#### GREENLAND



#### FRENCH GUIANA AND GUYANA



#### **COLOMBIA AND VENEZUELA**



#### **ARGENTINA AND BRAZIL**



0 200 400 600 800 km