

# Red River, black gold

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**Vietnam's oil sector is leading the country's economic surge, and international oil expertise is central to the continuing development of the industry**

The South China Sea, known to Vietnamese as the East or Natuna Sea and Chinese as the South Sea, is the key to regional energy supply for some of the most vibrant economies in the global melting pot. China, Korea and Vietnam have all experienced sustained year-on-year growth for more than a decade. Such growth has resulted in a leap in energy demand. The oil and gas reserves discovered in the 1990s prompted a scramble for exploration, the development of up- and downstream facilities and refining that has strained relations at government level, and has seen significant inward investment by Western oil companies, both large and small.

Vietnam is the third-largest oil producer in South-East Asia, and the country produces around 370,000 barrels of oil per day (bpd). It also produces 670 million cubic feet per day (mmcf) of gas. The French undertook the earliest exploration work in Vietnam during the 1930s in the Mekong Delta. US and European oil & gas companies were involved in early exploration in the offshore in the early 1970s, and Mobil enjoyed early success with the Dua (Nam Con Son basin) and Bach Ho (Cuu Long basin) discoveries in 1975. Since then the Nam Con Son and Cuu Long basins have seen the most licensing activity, with a phase of interest in the Nam Con Son basin from the late 1980s to early 1990s, and more recently a surge of interest in the Cuu Long basin from the beginning of this decade. The industry showed

great interest in Vietnam's deep water Phu Khanh basin during 2005 and 2006, when a successful licensing round was held by PetroVietnam.

The key producing field in Vietnam is the giant Bach Ho oil field, which was brought on-stream by Vietsovpetro in 1986. Numerous discoveries have been made surrounding Bach Ho in the Cuu Long basin, including Ruby, Rang Dong, Ca Nga Vang, Su Tu Vang, Su Tu Den and Te Giac Trang. Commercial discoveries in the Nam Con Son have been more elusive.

PetroVietnam, the country's dominant state-owned oil and gas group, is following the model of China's profitable state-owned petroleum giants, CNPC-PetroChina, CNOOC and Sinopec, and also Malaysia's highly-successful state-owned Petronas, and leveraging its strong domestic position to develop a growing international portfolio of energy interests and operations. Joint ventures are the order of the day, with the Communist government strictly controlling levels of foreign share ownership.

Among UK companies, BP is of course a significant investor in Vietnam. The company began its Vietnamese interest in 1989, which now includes the exploration and production of oil and gas. It discovered four major gas fields 320km offshore south of Ho Chi Minh City, which resulted in the US\$1.3 billion Nam Con Son Gas Project. The operation involved the development of the Lan Tay and Lan Do fields, the laying of a two-phase offshore pipeline (the longest of its kind in the world) and the construction of the 716.8 MW Phu My 3 Power Plant in Ba Ria Vung Tau province. Production started in November 2002, and BP now supplies gas to meet around 40 per cent of Vietnam's electricity demand.

Salamander Energy, an independent exploration and development company founded in 2005, is also active in Vietnam. Last year, Salamander agreed terms with both PetroVietnam and the government, and subsequently signed a Production Sharing Contract called the Cuu Long River Delta Block 1. The block is located both onshore and offshore the Cuu Long Delta in southern Vietnam. According to James Menzies, CEO of Salamander: "We are continuing with a programme of technical analysis and data capture in the Cuu Long Delta, and hope to commence drilling our first well around the turn of the year. Vietnam has a strong recent success rate in oil and gas exploration."

Premier Oil is another exploration firm active in the region. Having made an initial investment in 2004, it

South-East Asian oil and gas reserves (2003)

	Proven Oil Reserves (Billion Barrels)	Proven Gas Reserves (Trillion Cubic Feet)
Brunei	1.35	14.1
Cambodia	0	0
China	1 (est.)	3.5
Indonesia	0.2	29.7
Malaysia	3.9	79.8
Philippines	0.2	2.7
Singapore	0	0
Taiwan	<0.01	2.7
Thailand	0.3	7.0
Vietnam	0.6	6.0
TOTAL	7.5 (est.)	145.5

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formed a joint venture with Santos and the Vietnamese government to develop the Dua and Chim Sao prospects off the south-east coast. A Draft Reserves Assessment report was submitted to the Vietnamese authorities in December last year. Outline Development Plan approval, approval of the Field Development Plan and Project Sanction are all targeted for 2008. First production from Chim Sao is expected by 2010.

Simon Lockett, Premier's CEO, is clear about the significance of Vietnam for the company. "We are building a new core Business for Premier in Vietnam, leveraging our existing position and experience on the Indonesian side of the Natuna Sea. One third of Premier's existing production base of 35,000 barrels of oil equivalent per day (boepd) comes from two fields in Indonesian waters which supply gas down a 650km pipeline into Singapore. This gas is turned into electricity that supplies one third of Singapore's energy needs. When Chim Sao comes on stream in 2010, it will contribute around 8,000 boepd above existing production levels to Premier's corporate production target of 50,000 boepd. Vietnam forms the backbone of our 2008 exploration campaign with a rig contract in place for up to two years, and the largest exploration prospects in our portfolio are in Vietnam, hence overall the Natuna Sea and Nam Con Son basin are very significant for Premier's growth."

Looming large on all the companies' commercial horizons is the Vietnamese government. While embroiled in a dispute with northern neighbour China over commercial rights in the South China Sea, it is also engaged in a balancing act between economic liberalisation and a deep-seated desire to retain control of the exploitation of its natural resources. Salamander's



The Wil Superior drilling rig testing the Hai Su Den exploration well

Menzies says of the general situation: "Vietnam seems particularly amenable to small companies investing in the country – clearly this is a level playing field. Vietnam offers both established production as well as exploration opportunities, and it has a genuinely outward-looking national oil company [PetroVietnam] – a company that understands international oil company perspectives and is willing to take some risk."

Premier's Lockett concurs: "We have found the Vietnamese authorities to be open and supportive of our activities in Vietnam. For example, we participated in a technical co-operation agreement with PetroVietnam in 2006 over a block in the Song Hong Basin in northern Vietnam. We have recently announced that this has been converted in a full production sharing contract and will form an important part of our mid-term exploration programme."

Underpinning PetroVietnam's international and regional ambitions is a dominant, if not monopoly, position in all segments of Vietnam's petroleum industry – upstream, midstream and downstream gas and oil – along with its dual role as government regulator. Established in 1975 and now with more than 30 subsidiaries and association companies, PetroVietnam is by far Vietnam's most profitable state-owned company, with annual revenues of about US\$9 billion and serving as the country's largest taxpayer.

With the group building Vietnam's first oil refinery at Dung Quat on its central coast, the potential to supply downstream refined fuels for regional markets as well as the domestic market is rapidly emerging. Dung Quat, a US\$2.5 billion, 130,000-barrels-per-day project, is due to come on stream by early 2009, while two other refineries where PetroVietnam has interests are also under development.

So the oil business generally is thriving in Vietnam, despite ongoing turmoil on the international markets and continuing record commodities prices. As Menzies says: "Salamander recently opened new offices in Ho Chi Minh City and we are actively looking to further develop our position in the country."

Premier, meanwhile, begins a new drilling programme this month. "Our programme will kick off in mid-March with an appraisal well on Chim Sao. This, and the exploration wells we are drilling, are expected to take 30-40 days each to drill, longer if we make discoveries and proceed to flow test the wells. We have the rig for up to two years."

There is one other benefit of doing business with the Vietnamese government that Menzies draws attention to. "It [the government] also has a well-understood and straightforward process for awarding acreage that is always honoured. Indeed, we have little interaction with the UK government about our activities in Vietnam. This is not a criticism of the UK government, more a compliment to Vietnam." E