

Oil Supply Analysis 2006 - 2007

- Oil Supply expected to increase with 1.5 to 2 mb/d in 2007
- Oil price to stay between US\$50-\$75/bbl

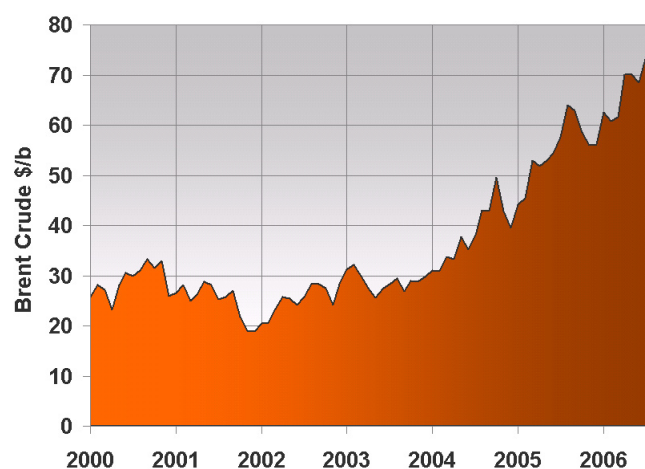
The reasons for the unexpected upward trend in the price of oil that began in 2003 have been debated extensively. Many speculative and contradictory causes have been advanced in the media and many in-depth analyses have been presented to try to explain this upward trend. The most logical underlying cause for the recent rise in the price of oil has been the lack of spare capacity in the global oil market. In recent years, the large increase in the demand for oil, especially from China, and the limited increase in production capacity combined to topple the already delicate demand-supply balance that prevailed in the oil market prior to 2003. The combination of these two factors helped to usher in a period of rising oil prices. Although the demand for oil may have cooled off a bit lately, its supply did not increase sufficiently during 2006 to offset the, until recently, continuing rise in the price of oil. In the past few weeks the price of oil has dropped back towards the levels prevailing at the beginning of 2006 of around USD\$ 60 a barrel.

Are higher prices heralding the end of oil?

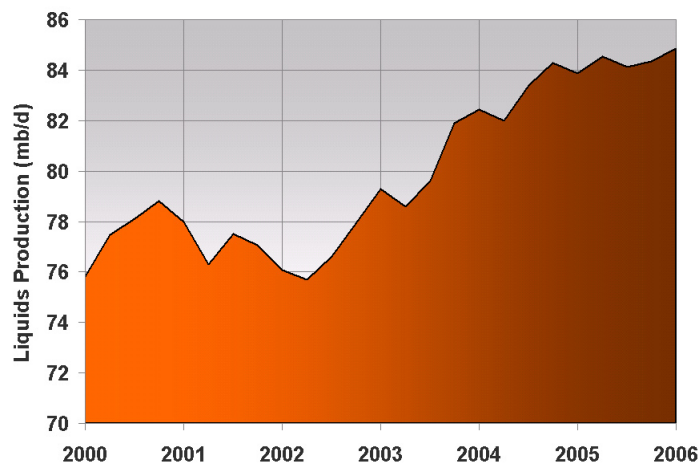
An issue that pervades oil price speculation is the timing of peak oil – the point of maximum oil production after which a structural decline in the global production of oil will set-in. According to some oil analysts argue that this point has already been reached for conventional crude oil. In view of the fact that total global liquids production has hardly increased since the end of 2006 and the continuing stream of news items on high production decline rates in various countries. A few analysts even claim that we have already passed the point of peak oil including various unconventional sources altogether, despite clear statistical evidence to the contrary. There are also analysts who believe that the upward movement in the price of oil of the past years is merely part of a regular market cycle.

By analyzing oil field developments announced by oil companies a worthwhile and accurate prognosis can be made concerning the near to mid-term future production and price of oil. Regrettably, there are very few analysts doing the extremely arduous and time-consuming task of gathering and integrating all the oil field development data. ASPO Netherlands is putting considerable effort in maintaining an up-to-date database of oil field developments throughout the entire world.

Brent crude oil price 2000 - 2006



World liquids production 2000 - 2006



Peak Oil Netherlands Foundation is the Dutch Cluster of the Association for the Study of Peak Oil & Gas (ASPO). An International network of scientists active in eighteen countries with the following goals:

1. To evaluate the world's endowment and definition of oil and gas;
2. To study depletion, taking due accounts of economics, demand, technology and politics;
3. To raise awareness of the serious consequences for Mankind.

ASPO Netherlands Newsletter #5 - Oktober 2006

Address: Stichting Peak Oil Nederland,
Postbus 10056, 1001 EB Amsterdam

Phone: +31 (0)6 44042419

Email: contact@peakoil.nl

Website: <http://www.peakoil.nl>

The supply outlook for 2006 is largely in line with our expectations and with events that have so far unfolded: Global oil production has increased only slightly. In 2007, approximately 5.1 million barrels per day (mb/d) of production will come on-stream compared to 3.8 million mb/d in 2006. Given that, so far, there has been a negligible increase in oil production in 2006, the overall global decline for the production of Conventional Oil and Natural Gas Liquids is an approximate annual rate of 4%. At this rate of decline, overall global production should increase by nearly 2 mb/d in 2007, thus allowing enough room for supply to expand at a rate of 2%. In light of this expansion, we expect the lower limit for the price of oil to be USD\$ 50 a barrel. At this price level, it is very likely that OPEC will voluntarily cut its production of oil to avoid a further drop in the price of oil. However, as yet unforeseen political and economical events will likely unfold in unstable producer nations, short price spikes are bound to happen. Therefore an upper limit of USD\$ 75 a barrel in the price of oil seems like a reasonable estimate for 2007 (with due note made that severe disruptions to the production of oil are not taken into account here). The effect of global demand on the price of oil remains to be seen. The demand for oil in the OECD countries and Asian giants continues to rise to the detriment of less developed nations which continue to face severe difficulties in obtaining oil at the prevailing high prices.

No peak in production before 2012

In 2005, ASPO Netherlands in its "World Production and Peaking Outlook" report published a peak production range of between 2012 and 2017. Preliminary analysis for a more detailed study to be released at the end of this year, confirms earlier findings. Between 2006 and 2010 nearly 25 mb/d of new production is expected to come on-stream leading to a production level of 93-94 mb/d in 2010 with the incorporation of a decline rate of 4% over present day production. The situation beyond 2010 is more uncertain. Potentially, there are enough oil field developments currently on the horizon to sustain production growth in at least the first few years of the next decade. However, more oil field discoveries, widespread improved extraction methods, and investments are needed to push the peak towards the later half of the 2010s. Furthermore, the more the rate of production increases, the more depletion and therefore decline that needs to be offset, increases.

Total gross supply figures 2006/2007		
	2006	2007
Gross supply	3,825	5,058

Decline calculated over 81.76 mb/d (2005 prod.)		
	2006	2007
Decline (4%)	3,270	3,140
Decline (5%)	4,088	3,884
Decline (6%)	4,906	4,611

Net supply figures 2006/2007		
	2006	2007
Net increment (4%)	554	1,919
Net increment (5%)	-263	1,175
Net increment (6%)	-1,081	447

Demand inc. calculated over 84.21 mb/d (2005 prod.)		
	2006	2007
Demand (1.5%)	1,263	1,282
Demand (2%)	1,684	1,718
Demand (2.5%)	2,105	2,158
Demand (3%)	2,526	2,602

Support ASPO Netherlands

The research of ASPO Netherlands is conducted on a voluntary basis. To provide quality data and to keep our organisation running, funding is necessary. Donations can be transferred to:

Bank account 4081909, Stichting Peak Oil Nederland, located in Amsterdam, Bic code PSTBNL21.

The Foundation is registered by the law under the chamber of commerce number 34228212.

Thanks in advance for your support!

Liquid projects started before 2006 still increasing production

Project/field name	Country	Operator	Production (000 bl)			Reserves
			2005	2006	2007	(000 bbl)
Rhourde Oulad Djemma	Algeria	ENI	60	70	70	300,000
Menzel Lejmat North	Algeria	ConocoPhillips	16	30	40	60,000
Gassi El Agreb phase II	Algeria	Amerada	55	60	70	300,000
Rhourde El Baguel	Algeria	SonaHess	40	45	60	500,000
Hassi M'Rel	Algeria	Sonatrach	200	210	210	
Zarzataine	Algeria	Sinopec	25	25	35	200,000
Doroud	Iran	ENI	130	200	220	1,500,000
Darquain	Iran	ENI	120	160	160	
Darkhovin ,Masjid, Suleiman	Iran	AGIP	50	120	160	3,000,000
Foroozan, Esfandir	Iran	Total, Petro Iran	40	40	80	
West & South Zagros upgrade (16 fields)	Iran	NIOC	65	80	200	14,000,000
Bangestan	Iran	Qeshm	205	250	300	4,000,000
Murzuk basin Elephant	Libya	Repsol YPF	50	150	150	560,000
Mabrouk	Libya	Eni	18	35	40	
Murzuk basin NC 186 (fields A&D)	Libya	Repsol YPF	30	55	55	
Al-Jurf	Libya	Total	40	40	80	
Bonga	Nigeria	Shell	10	160	225	600,000
EA	Nigeria	Shell	115	5	70	
Abo	Nigeria	Eni	14	22	38	
Sahil, Asab, Shah	UAE	ADNOC	385	445	445	
Tomoporo	Venezuela	Pvdsa	160	200	220	1,000,000
Kirkuk (Khumala dome)	Iraq	NOC	35	80	100	
Subbah-Luhais	Iraq	Petrel Resources	50	70	120	2,200,000
Marco Polo	USA	Anadarko/ENI	10	60	80	
White Rose	Canada	Husky	7	83	110	230,000
Foster Creek	Canada	EnCana	29	41	52	640,000
Christina Lake	Canada	EnCana	5	5	10	
Syncrude Phase III	Canada	Syncrude trust	238	353	353	
Peace river	Canada	shell	24	26	34	
Ku-Malob-Zaap	Mexico	Pemex	322	400	500	4,352,000
Crudo Ligerio Marino (SGP)	Mexico	Pemex	50	150	230	766,000
Antonio J. Bermudez	Mexico	Pemex	70	90	120	2,207,000
Jujo-Tecominoacan	Mexico	Pemex	72	80	85	923,000
Poza Rica	Mexico	Pemex	10	10	10	670,000
Bellota Chinchorro	Mexico	Pemex	17	25	35	334,000
Espadarte / Marimba	Brazil	Petrobras	40	65	65	
La Cira-Infantas	Bolivia	Occidental	5	5	7	80,000
Clair	UK	BP	8	40	60	250,000
Kristin Deepwater	Norway	Statoil	40	56	56	
Urd	Norway	Statoil	3	30	25	70,000
Fram East	Norway		12	45	35	60,000
Mukhaizna	OMAN	Occidental	10	20	60	1,000,000
Nabrajah	Yemen	DNO	10	40	60	
Kizomba B (Kissanje/Dikanza)	Angola	Exxon	75	200	250	1,000,000
Bomboco	Angola	Chevron	30	30	30	
Sanha	Angola		30	70	100	
M'Boundi	Congo Braz.		50	70	75	399,000
Adar Yeil/Tale (Sudan)	Sudan	GNPOC	100	250	300	1,300,000
Mutineer-Exeter	Australia	Santos	60	100	80	74,000
Bohai Bai PL 19-3, PL 25-6 (phase II)	China	ConocoPhillips	40	40	140	600,000
Pattani	Thailand		20	36	16	
ACG phase I	Azerbaijan	BP	261	325	325	5,400,000
Kravtsovskoye	Russia	Lukoil	5	10	14	47,000
Rospan (company / Urengoy)	Russia	TNK-BP	10	20	20	2,000,000
Salym / Valedyp	Russia	Shell	13	60	120	
Sakhalin I	Russia	Exxon	25	200	250	2,300,000

Total	3,589	5,387	6,605
2006 and 2007 increments	1,798	1,219	

2006 Startup Liquid Projects							
Project/field name	Country	Operator	Production (000 bl)			Reserves (000 bbl)	
			Peak	2006	2007		Onstream
In Amenas	Algeria	Sonatrach	50	40	50	320,000	May-06
Oyong	Indonesia	Santos	10	7	7	5,000	
GC 28	Kuwait	KOC	60	60	60		
Murzuk basin NC 186 (fields B&H)	Libya	Repsol YPF	35	5	35		
Yoho	Nigeria	Exxon	25	25	25	400,000	Feb-06
Erha	Nigeria	Exxon	150	40	120	500,000	Mar-06
Erha North	Nigeria	Exxon	50	50	50		Mar-06
AOR-E. delta	Nigeria	Exxon	100	100	100		Jul-06
Oryx GTL	Qatar	Sasol	34	34	34		Jun-06
Seef limited (Linear Alkyl Benzene Plant)	Qatar	QP/UDC	50	50	50		Jan-06
Haradh III	Saudi Arabia	Aramco	300	150	300		Mar-06
Haradh III (condensate)	Saudi Arabia	Aramco	150	75	150		Mar-06
NEB Phase I	UAE	ADNOC	110	110	110		
Alpine Phase II (satellites Nanqui/Fiord)	USA	Anadarko	35	10	25		Aug-06
Constitution	USA	Anadarko	70	70	70		Mar-06
Primrose North	Canada	Canadian Nat. R.	30	30	30		
Surmont Phase I	Canada	ConocoPhillips	27	27	27		Nov-06
San Manuel (SGP)	Mexico	Pemex	11	11	11	214,000	
Albacora Leste P-50	Brazil	Petrobras	150	110	150	700,000	Jun-06
Piranema	Brazil	Petrobras	20	8	20		
Golfinho I	Brazil	Petrobras	100	100	100		Jun-06
Jubarte (P-34)	Brazil	Petrobras	60	60	60		Jul-06
Buzzard	UK	Nexen	190	40	190	550,000	Nov-06
Enoch	UK	Paladin	12	12	12		
Tweedsmuir	UK	Talisman	45	30	45	30,000	
Brenda	UK	Oilexco	18	18	17		Aug-06
Gulltop	Norway	Statoil	12	9	11	30,000	
Oseburg West Flanl	Norway	Hydro	25	22	18	27,000	
Skinfaks/Rimfaks	Norway	Statoil	36	5	20	18,000	
Kizomba A phase II	Angola		50	50	50		
Dalia	Angola	Total	225	20	225	1,600,000	Nov-06
Benguela, Belize, Lobito and Tomboco	Angola	Chevron	188	100	100	460,000	Jul-06
Saqqara	Egypt		40	40	40		
Thar Jath	Sudan		60	30	60		
Chinguetti	Mauritania	Woodside	75	50	75	250,000	Feb-06
Moundouli	Chad		15	15	15		
Enfield / Laverda	Australia	Woodside	100	50	80	127,000	Jul-06
Various	China	CNOOC	20	20	20		
Krishna Godavari	India		9	9	9		
Guntong Hub	Malaysia	ExxonMobil	35	35	35		
Tui	Mauai		30	30	30		
Block G8/32 extension	Thailand	Chevron	20	20	20		
ACG Phase II	Azerbaijan	BP	465	200	400	5,400,000	Jun-06
Shah Deniz	Shad Deniz	BP	40	20	40	750,000	
Prirazlomnoye	Russia		150	30	110	610,000	
Total			2,027	3,206			
2007 increments				1,179			

2007 Startup Liquid Projects						
Project/field name	Country	Operator	Production (000 bl)			Reserves
			Peak	2007	2008	(000 bbl)
South Pars phase 6,7 & 8	Iran	Statoil	120	60	120	2,400,000
Rag-E-Safid	Iran	Qeshm	150	50	125	
South Pars oil Layer	Iran	NIOC	150	34	40	
GC 14	Kuwait	KOC	70	70	70	
NC 115 (fields C+F+R)	Libya	Repsol YPF	30	30	30	
Amal	Libya	NOC	40	40	40	160,000
Rasgas Train 5	Qatar	QP/Exxon	45	45	45	
Idd al shargi North & South Dome	Qatar	Occidental	65	65	65	
Najwat Najem	Qatar	ONGC	50	50	50	
AFK (Hadriya, Fadhili, Khursaniyah)	Saudi Arabia	Aramco	500	150	300	
Khursaniyah Gas	Saudi Arabia	Aramco	250	250	250	150,000
Bu Hasa	UAE	ADNOC	180	90	180	
Lower Zakum - Umm Shaif	UAE	ADNOC	200	100	200	
Deimos	USA	Shell	30	30	30	
Qannik reservoi (alpine satellite)	USA	Anadarko	20	20	20	
Neptune	USA	Repsol YPF	50	10	50	770,000
Atlantis	USA	BP	200	45	125	
Tucker & Sunrise Thermal	Canada	Devon Energy	230	100	230	
Jackfish	Canada		35	10	35	
Long Lake	Canada		70	70	70	
Northern Lights	Canada	Synenco	48	30	48	184,000
Ixtal-Manik (SGP)	Mexico	Total	55	30	55	
Aguada Pichana	Argentina		30	30	30	
Roncador P-52	Brazil		80	40	80	
Roncador P-54	Brazil	Petrobras	180	90	180	
Golfoinho II	Brazil	Petrobras	100	100	100	100,000
Polvo	Brazil	Devon Energy	50	20	50	
Maria & Maria Horst	UK	BG Group	15	7	15	
Chestnut	UK	Total	3	3	2	
Callanish-Brodgar	UK		50	35	50	
Rosebank/Lochnar	UK		150	70	150	450,000
Ormen Lange	Norway	Marathon	35	35	35	
Volve	Norway		50	40	50	
Alvheim / Vilje	Norway		50	50	60	
Statfjord Late life	Norway	Chevron	65	65	65	
Banzala	Angola		25	25	25	750,000
Greater Plutonio	Angola		240	60	180	
Rosa	Angola	BP	150	70	150	
Lirio	Angola	Total	70	70	70	
Kizomba C (Mondo)	Angola	ExxonMobil	100	100	100	590,000
Okume complex	Equatorial Guinea	Amerada Hess	40	30	40	
Tiof	Mauritania	Woodside	120	70	120	
Kikeh	Malaysia	Murphy	120	15	60	
Block G4/34	Thailand	Chevron	40	30	40	
Tengiz phase II (+korolev)	Kazakhstan	Chevron	285	120	240	3,300,000
Yuzhno-Khylchuyuskoye	Russia	NMNG	200	100	200	
Verkhnechonsk	Russia	Rosneft	200	7	20	
Total				2,661	4,290	
2008 increments					1,629	