

Production Quality



World Oil and Gas Review **2008**

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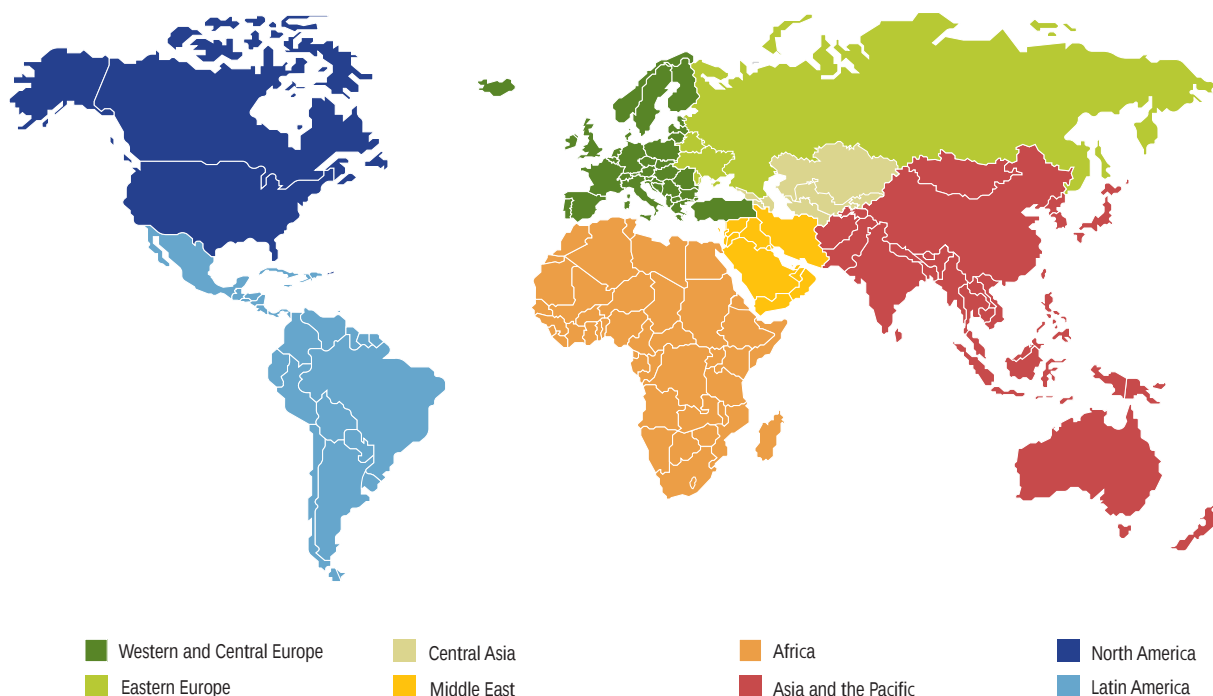
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List of countries by areas and aggregates

Elenco dei paesi per aree e aggregati

EUROPE: Western and Central Europe, Eastern Europe.

Western Europe and Central Europe: Albania, Austria, Belgium, Bosnia Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Gibraltar, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Eastern Europe: Belorussia, Moldova, Russia and Ukraine.

CENTRAL ASIA: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan.

MIDDLE EAST: Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen.

AFRICA: Algeria, Angola, Benin, Cameroon, Chad, Congo, Côte d'Ivoire, Dem. Rep. Congo, Egypt, Equatorial Guinea, Ethiopia, Gabon, Ghana, Kenya, Libya, Madagascar, Mauritania, Morocco, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Somalia, South Africa, Sudan, Tanzania, Tunisia, Zambia and Zimbabwe.

ASIA AND THE PACIFIC: Afghanistan, Australia, Bangladesh, Brunei, China, East Timor, Hong Kong, India, Indonesia, Japan, Malaysia, Mongolia, Myanmar, Nepal, New Zealand, North Korea, Pakistan, Papua New Guinea, Philippines, Singapore, South Korea, Sri Lanka, Taiwan, Thailand and Vietnam.

AMERICAS: North America, Latin America.

North America: Canada and the United States.

Latin America: Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela.

INTERNATIONAL INSTITUTIONS AND ORGANISATIONS

EUROPEAN UNION (27): Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

OECD: Europe, Asia and the Pacific, North America.

Europe: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Asia and the Pacific: Australia, Japan, New Zealand and South Korea.

North America: Canada, Mexico and the United States.

OPEC (12): Algeria, Angola, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates and Venezuela.

World

Crude production by quality
(gravity and sulphur content)

(thousand barrels/day)

Produzione di greggio per classi di qualità
(densità e contenuto di zolfo)

(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
WORLD (A)	64,252	66,279	67,313	65,711	67,931	67,994	67,497	70,185	73,028	73,898	74,213	73,957
Ultra Light	1,232	1,310	1,335	1,404	1,577	1,617	1,634	1,740	1,827	1,938	2,051	2,148
Light & Sweet	12,649	12,861	12,582	12,418	12,544	12,296	11,470	11,660	12,037	11,992	12,355	12,432
Light & Medium Sour	2,500	2,513	2,582	2,515	2,646	2,698	2,302	2,582	2,798	2,941	3,145	3,310
Light & Sour	1,963	2,250	2,498	2,346	2,498	2,390	2,298	2,351	2,413	2,448	2,513	2,423
Medium & Sweet	6,340	6,471	6,629	6,851	7,011	7,119	7,873	7,936	7,971	7,937	7,623	7,671
Medium & Medium Sour	1,682	2,180	1,981	1,897	1,925	1,919	1,532	1,558	1,577	1,712	1,733	2,440
Medium & Sour	24,625	25,246	25,701	24,993	25,801	25,582	25,797	27,643	29,286	29,682	29,556	28,595
Heavy & Sweet	1,303	1,053	1,190	1,094	1,091	1,158	1,345	1,342	1,440	1,440	1,452	1,708
Heavy & Medium Sour	977	985	1,119	1,226	1,445	1,527	1,696	1,663	1,806	2,066	2,141	2,029
Heavy & Sour	4,854	5,223	5,579	5,155	5,596	5,855	5,739	5,963	6,315	6,405	6,285	5,855
Unassigned production: (B)	6,126	6,186	6,116	5,810	5,797	5,834	5,810	5,746	5,558	5,336	5,358	5,347
- of which US Lower 48	5,065	5,153	5,080	4,827	4,816	4,844	4,750	4,706	4,515	4,313	4,361	4,377
- other	1,061	1,033	1,036	983	981	990	1,060	1,040	1,043	1,023	997	970
% Unassigned production (B/A)	9.5	9.3	9.1	8.8	8.5	8.6	8.6	8.2	7.6	7.2	7.2	7.2

Crude production by gravity

(thousand barrels/day)

Produzione di greggio in base alla densità

(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
WORLD	64,252	66,279	67,313	65,711	67,931	67,994	67,497	70,185	73,028	73,898	74,213	73,957
Light	18,344	18,935	18,997	18,684	19,265	19,001	17,705	18,334	19,075	19,319	20,064	20,313
Medium	32,647	33,898	34,311	33,742	34,737	34,620	35,203	37,137	38,834	39,331	38,912	38,706
Heavy	7,134	7,261	7,889	7,475	8,132	8,540	8,780	8,968	9,561	9,912	9,878	9,591
Unassigned production	6,126	6,186	6,116	5,810	5,797	5,834	5,810	5,746	5,558	5,336	5,358	5,347
(percentage)										(ripartizione percentuale)		
Light	28.6	28.6	28.2	28.5	28.4	27.9	26.2	26.1	26.1	26.1	27.0	27.5
Medium	50.8	51.1	51.0	51.3	51.1	50.9	52.2	52.9	53.2	53.3	52.5	52.3
Heavy	11.1	11.0	11.7	11.4	12.0	12.6	13.0	12.8	13.1	13.4	13.3	13.0
Unassigned production	9.5	9.3	9.1	8.8	8.5	8.6	8.6	8.2	7.6	7.2	7.2	7.2

Crude production by sulphur content

(thousand barrels/day)

Produzione di greggio in base al contenuto di zolfo

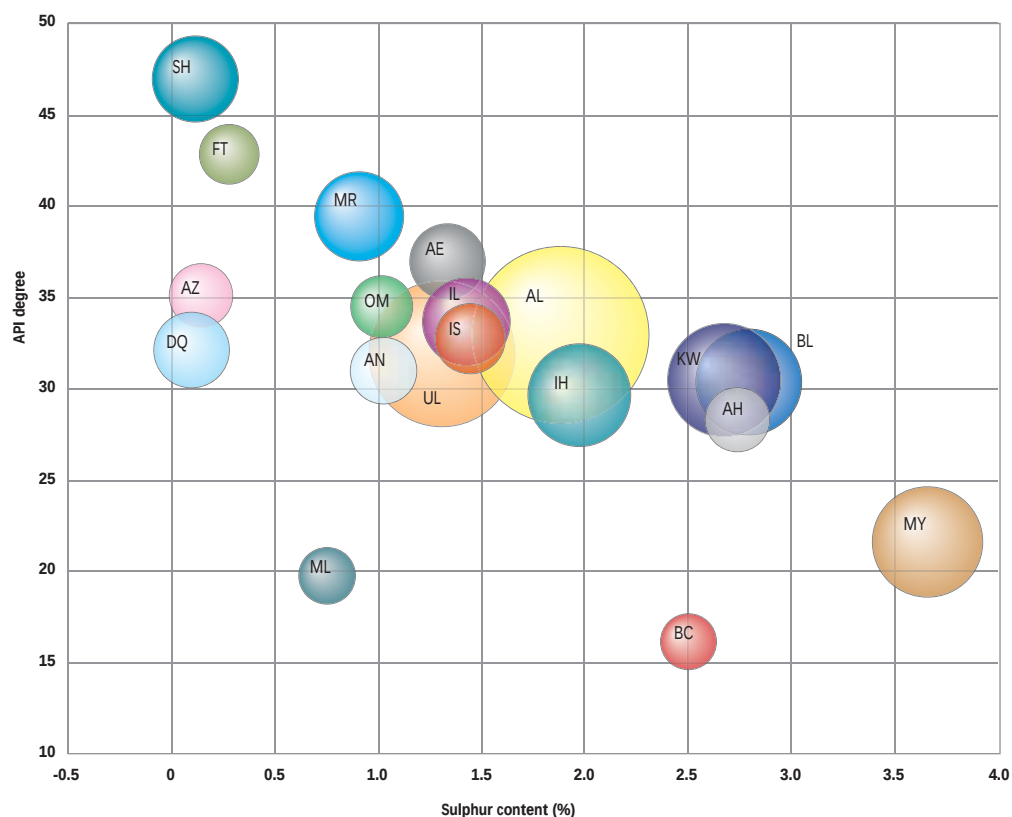
(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
WORLD	64,252	66,279	67,313	65,711	67,931	67,994	67,497	70,185	73,028	73,898	74,213	73,957
Sweet	21,525	21,696	21,736	21,767	22,224	22,190	22,323	22,679	23,275	23,307	23,482	23,959
Medium Sour	5,159	5,678	5,682	5,639	6,015	6,144	5,530	5,803	6,181	6,719	7,018	7,778
Sour	31,443	32,719	33,779	32,495	33,895	33,826	33,834	35,957	38,015	38,535	38,354	36,873
Unassigned production	6,126	6,186	6,116	5,810	5,797	5,834	5,810	5,746	5,558	5,336	5,358	5,347
(percentage)										(ripartizione percentuale)		
Sweet	33.5	32.7	32.3	33.1	32.7	32.6	33.1	32.3	31.9	31.5	31.6	32.4
Medium Sour	8.0	8.6	8.4	8.6	8.9	9.0	8.2	8.3	8.5	9.1	9.5	10.5
Sour	49.0	49.4	50.2	49.5	49.9	49.8	50.1	51.2	52.0	52.2	51.7	49.9
Unassigned production	9.5	9.3	9.1	8.8	8.5	8.6	8.6	8.2	7.6	7.2	7.2	7.2

Quality and production volume of main crudes

Qualità dei principali greggi e volumi prodotti

2007



= 500 thousand barrels/day

It's worth noting that both Brent and WTI (West Texas Intermediate), the two crude benchmarks for the international markets, do not appear in the above chart because their actual production is relatively modest- i.e. lower than 500,000 b/d. Also other crudes, such as Dubai and Tapis, are not shown.

È interessante notare che sia il Brent che il WTI, i due greggi di riferimento per i mercati internazionali, non compaiono nel grafico sovrastante poiché la loro produzione effettiva è relativamente modesta, ovvero inferiore a 500.000 b/g. Anche altri greggi, come il Dubai e il Tapis, non sono rappresentati.

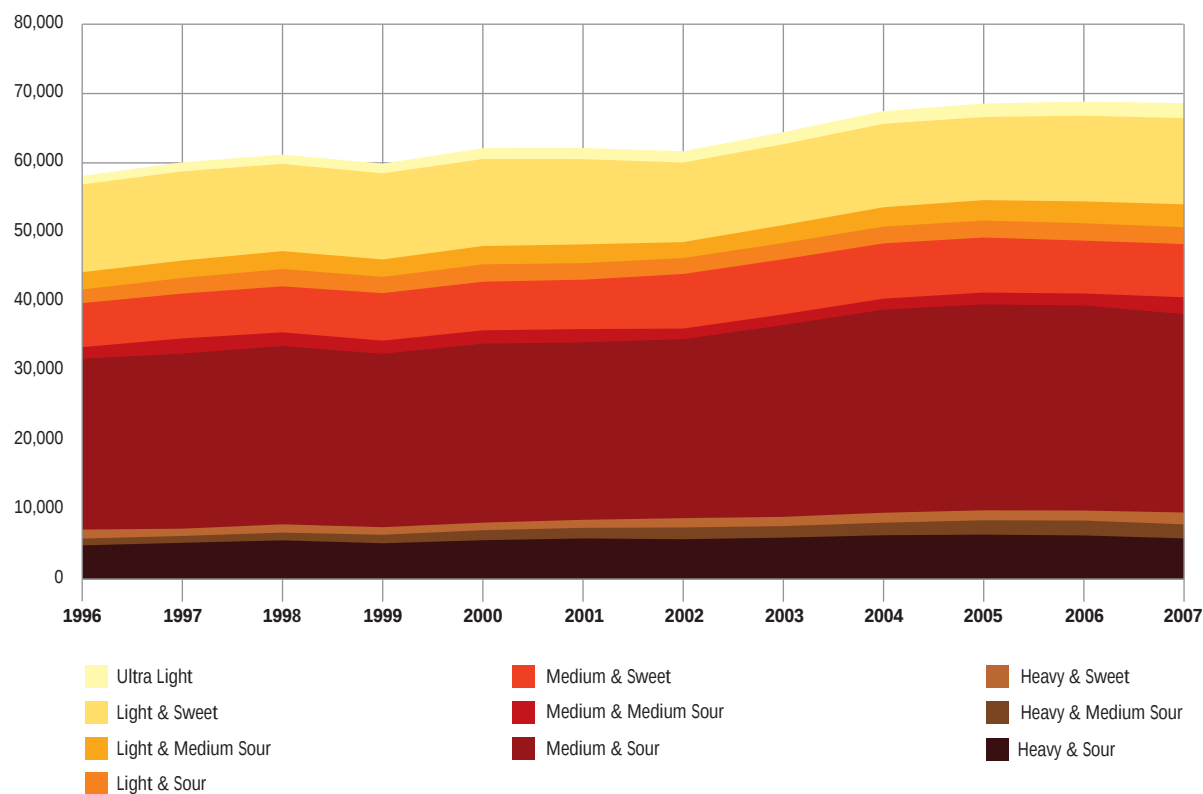
World

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

(migliaia di barili/giorno)

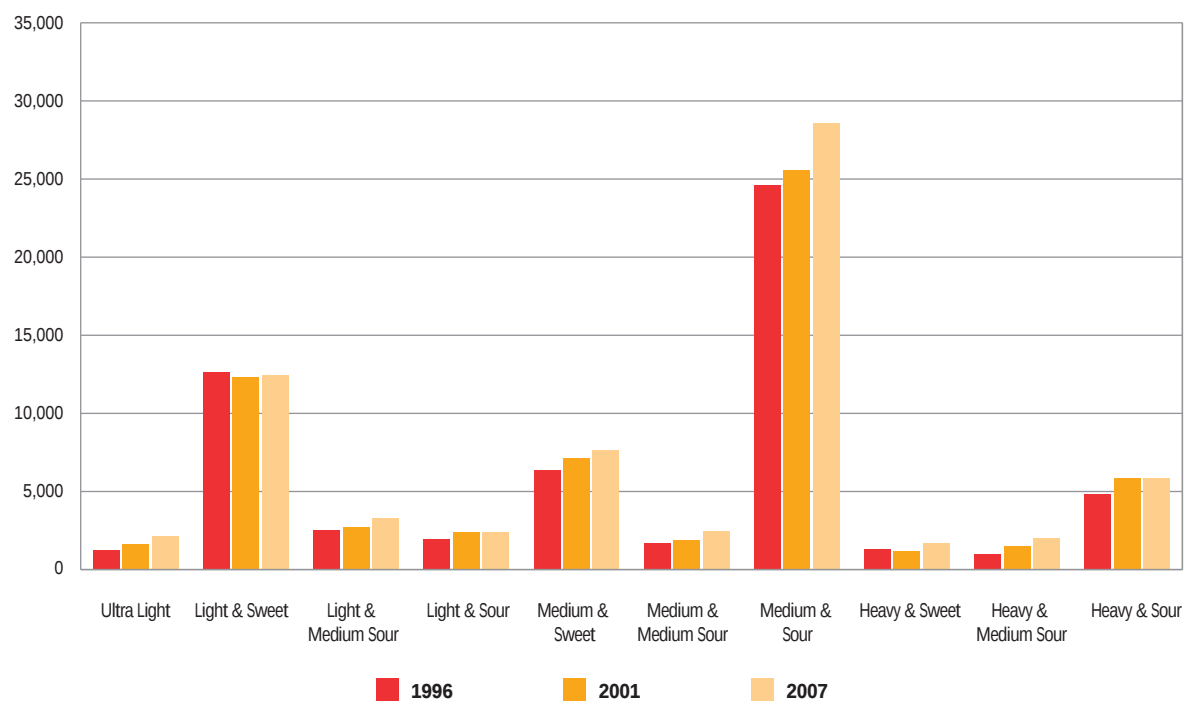


Crude production by quality

(selected years, thousand barrels/day)

Produzione di greggio per classi di qualità

(selezione anni, migliaia di barili/giorno)



Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

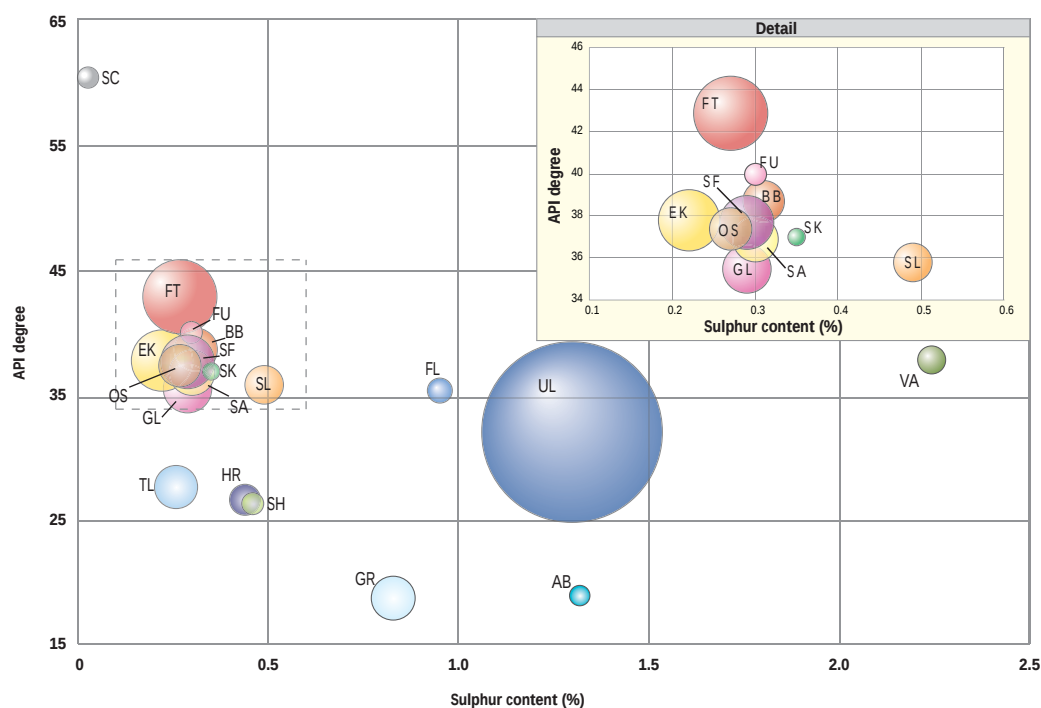
(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
EUROPE (A)	12,552	12,610	12,528	12,641	13,032	13,413	13,970	14,494	14,961	14,739	14,531	14,518
Ultra Light	218	249	231	233	232	302	342	433	413	463	512	497
Light & Sweet	4,493	4,352	4,150	4,102	4,082	3,924	3,711	3,420	3,468	3,131	2,860	2,870
Light & Medium Sour	46	39	72	60	33	25	26	142	128	107	100	136
Light & Sour	5	7	19	20	20	24	46	61	71	88	87	85
Medium & Sweet	1,037	1,102	1,231	1,416	1,529	1,522	1,562	1,481	1,097	935	881	768
Medium & Medium Sour						13	37	29	16	14	10	8
Medium & Sour	5,970	6,019	5,984	6,017	6,292	6,766	7,416	8,105	8,823	9,045	9,115	9,193
Heavy & Sweet	35	29	25	20	17	21	29	19	19	32	43	44
Heavy & Medium Sour	36	102	138	140	193	183	176	180	315	353	378	377
Heavy & Sour	99	119	108	95	101	99	83	104	90	79	71	64
Unassigned production (B)	613	591	570	538	533	534	542	521	521	493	474	477
% Unassigned production (B/A)	4.9	4.7	4.5	4.3	4.1	4.0	3.9	3.6	3.5	3.3	3.3	3.3

Quality and production volume of main crudes

Qualità dei principali greggi e volumi prodotti

2007



● = 100 thousand barrels/day (chart and detail)

AB - ALBA (U.K.)	FU - FULMAR (U.K.)	SA - SAKHALIN I (Russia)	SL - SIBERIAN LIGHT (Russia)
BB - BRENT BLEND (U.K.)	GL - GULLFAKS (Norway)	SC - SLEIPNER C.TE (Norway)	TL - TROLL (Norway)
EK - EKOFISK (U.K., Norway)	GR - GRANE (Norway)	SF - STATFJORD (U.K., Norway)	UL - URALS (Russia)
FL - FLOTTA (U.K.)	HR - HEIDRUN (Norway)	SH - SCHIEHALLION (U.K.)	VA - VAL D'AGRI BLEND (Italy)
FT - FORTIES (U.K.)	OS - OSEBERG (Norway)	SK - SAKHALIN II (Russia)	

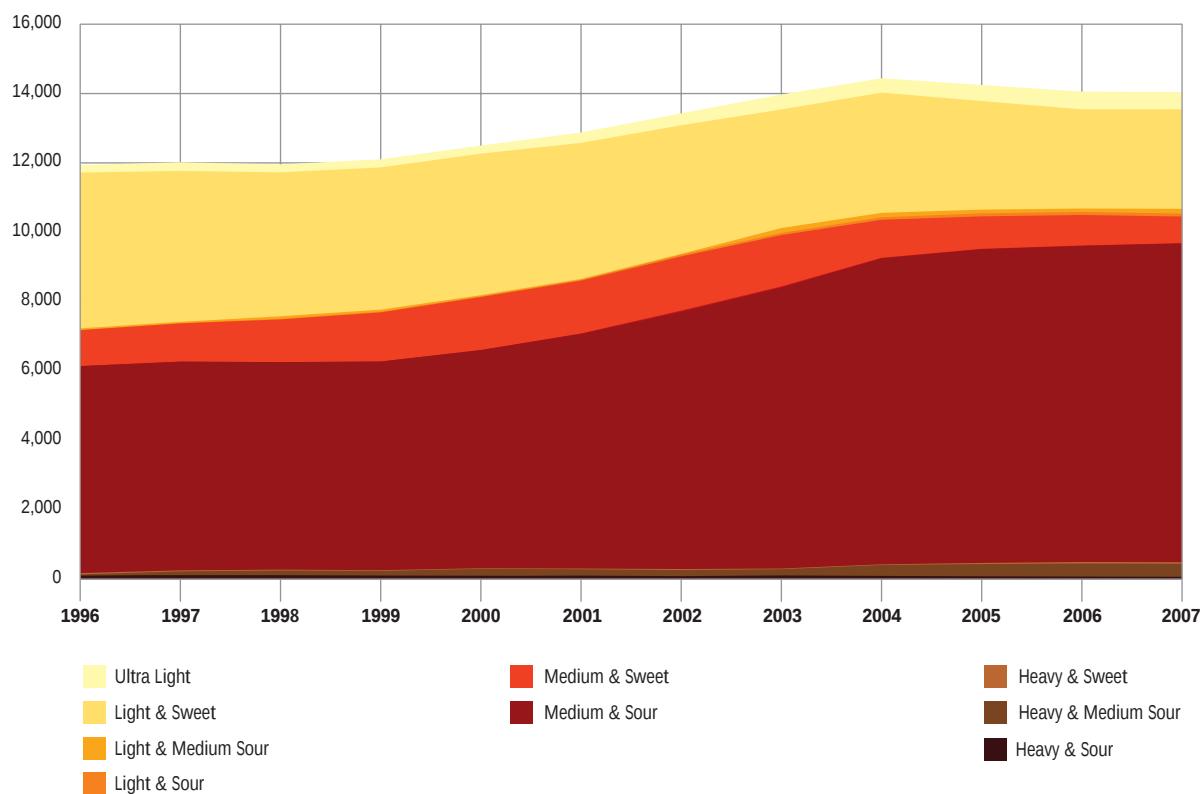
Europe

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

(migliaia di barili/giorno)



Crude production by quality

(selected years, thousand barrels/day)

Produzione di greggio per classi di qualità

(selezione anni, migliaia di barili/giorno)



Crude production by quality Countries

(thousand barrels/day)

Produzione di greggio per classi di qualità Paesi

(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
DENMARK	208	230	238	300	363	348	371	368	389	377	342	312
Light & Sweet	48	68	64	94	131	110	115	111	126	111	89	80
Medium & Sweet	160	162	174	206	232	238	256	257	263	266	253	232
ITALY	100	110	105	82	74	64	84	90	102	114	110	108
Light & Sweet	63	72	57	39	29	20	14	7	6	4	3	2
Light & Sour	5	7	19	20	20	24	46	61	71	88	87	85
Medium & Sour	2	2	2	1	2	3	2	2	2	1	1	1
Heavy & Sour	29	28	27	22	23	17	22	21	23	21	19	20
NORWAY	3,233	3,280	3,139	3,140	3,346	3,419	3,333	3,264	3,189	2,969	2,778	2,558
Ultra Light	218	249	231	233	232	302	342	433	413	463	512	497
Light & Sweet	2,138	2,093	1,945	1,878	1,983	1,979	1,862	1,740	1,928	1,713	1,473	1,346
Medium & Sweet	877	935	963	1,015	1,063	1,059	1,034	987	624	507	473	402
Medium & Medium Sour						13	37	29	16	14	10	8
Heavy & Medium Sour		3	0	14	68	66	58	76	209	273	310	306
RUSSIA	5,844	5,920	5,902	5,927	6,271	6,780	7,415	8,231	8,952	9,185	9,383	9,611
Light & Sweet	95	97	125	108	150	151	131	127	130	141	269	419
Medium & Sour	5,749	5,823	5,777	5,819	6,121	6,629	7,284	8,104	8,822	9,044	9,114	9,192
UNITED KINGDOM	2,554	2,479	2,574	2,654	2,445	2,268	2,225	2,020	1,808	1,601	1,444	1,452
Light & Sweet	2,149	2,022	1,959	1,983	1,788	1,664	1,589	1,435	1,278	1,162	1,026	1,023
Light & Medium Sour	46	39	72	60	33	25	26	142	128	107	100	136
Medium & Sweet		5	94	195	234	225	272	237	210	162	155	134
Medium & Sour	218	194	205	197	170	134	130					
Heavy & Sweet	35	29	25	20	17	21	29	19	19	32	43	44
Heavy & Medium Sour	36	99	138	126	125	117	118	104	106	80	68	71
Heavy & Sour	70	91	81	73	78	82	61	83	67	58	52	44

Central Asia

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

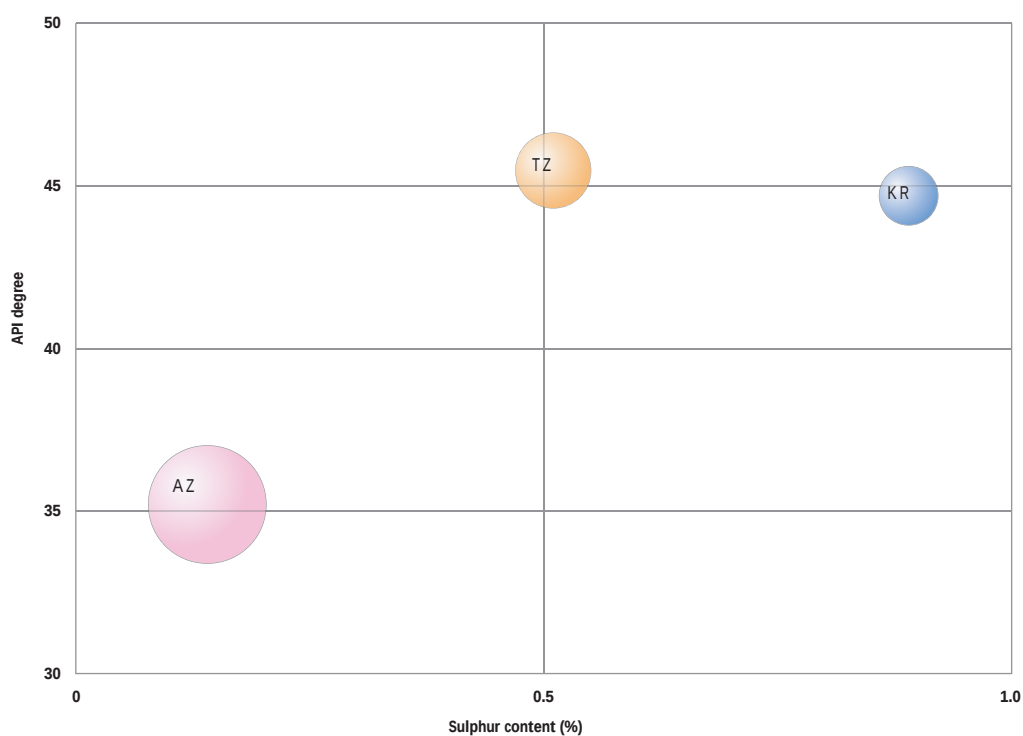
(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
CENTRAL ASIA (A)	826	899	964	1,127	1,224	1,348	1,520	1,640	1,796	1,969	2,210	2,484
Ultra Light	40	55	48	78	107	93	120	134	120	99	95	119
Light & Sweet	10	6	7	9	13	17	22	24	27	29	499	697
Light & Medium Sour	414	467	478	537	612	720	842	912	1,095	1,168	1,237	1,281
Light & Sour	92	95	86	92	75	71	66	71	62	47	38	37
Medium & Sweet	222	225	291	361	366	391	418	442	437	572	284	292
Medium & Medium Sour	5	5	4	4	4	5	6	8	8	6	6	2
Medium & Sour	0	0	0	0	0	0	0	0	0	0	1	3
Heavy & Sweet	37	40	41	44	42	45	42	42	44	44	43	48
Heavy & Medium Sour												
Heavy & Sour	0	0	1	1	1	1	1	1	1	1	1	1
Unassigned production (B)	5	6	6	2	4	4	2	5	4	3	4	4
% Unassigned production (B/A)	0.6	0.6	0.7	0.2	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2

Quality and production volume of main crudes

Qualità dei principali greggi e volumi prodotti

2007



= 100 thousand barrels/day



AZ - AZERI LIGHT (Azerbaijan)



TZ - TENGIZ (Kazakhstan)



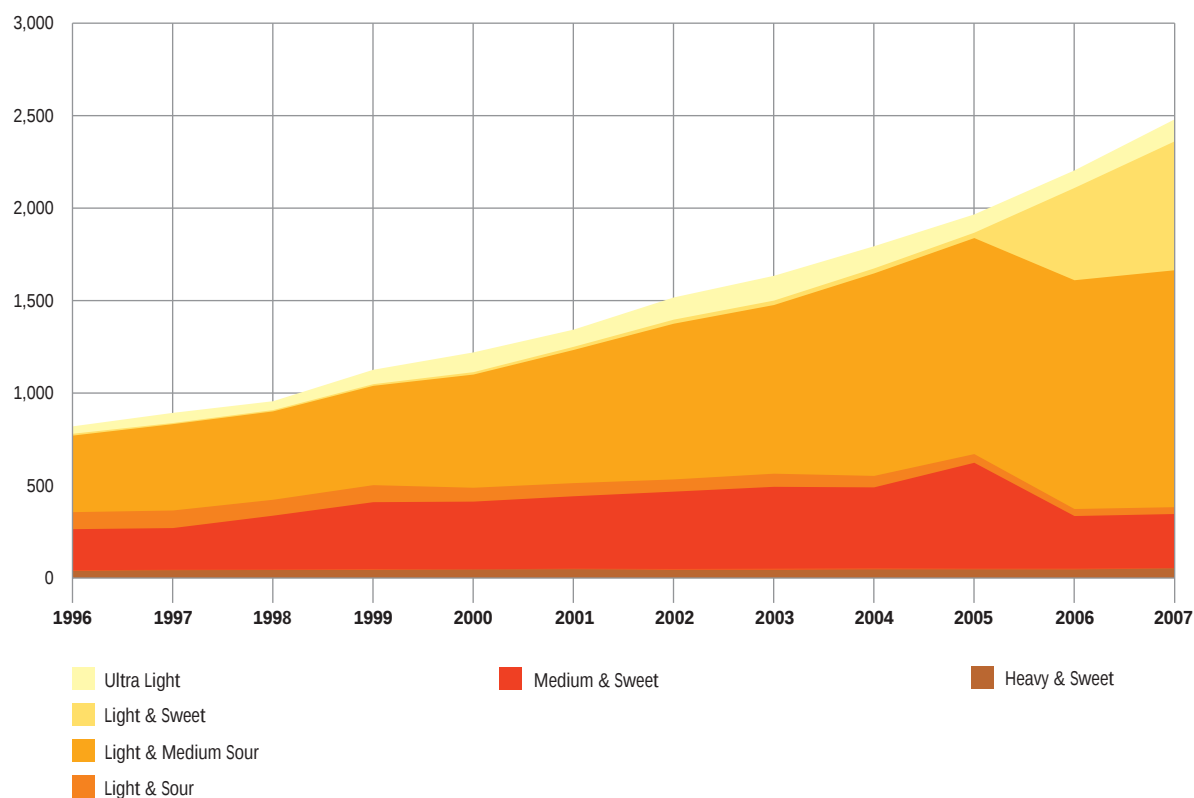
KR - KARACHAGANAK (Kazakhstan)

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

(migliaia di barili/giorno)

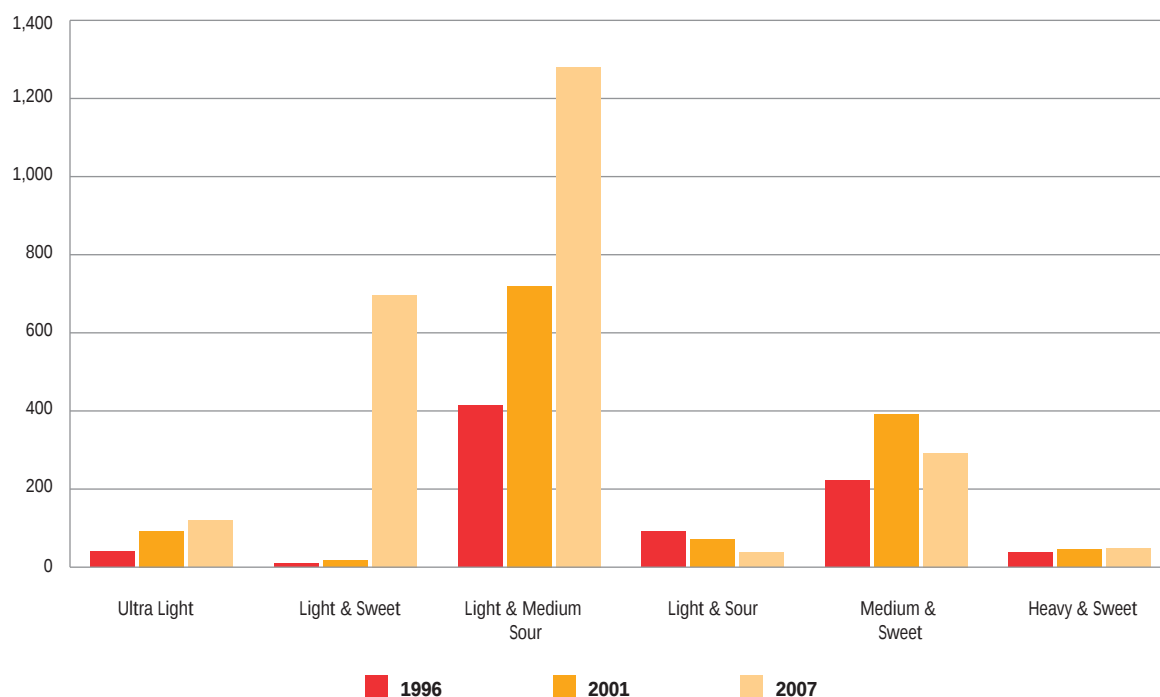


Crude production by quality

(selected years, thousand barrels/day)

Produzione di greggio per classi di qualità

(selezione anni, migliaia di barili/giorno)



Central Asia

Crude production by quality
Countries

(thousand barrels/day)

Produzione di greggio per classi di qualità
Paesi

(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AZERBAIJAN	181	181	231	276	281	300	308	311	310	448	649	859
Ultra Light												16
Light & Sweet											472	667
Medium & Sweet	150	150	200	245	252	268	277	279	276	413	141	138
Heavy & Sweet	31	31	31	31	29	32	31	32	34	35	36	38
KAZAKHSTAN	454	522	525	613	718	812	961	1,045	1,213	1,266	1,332	1,384
Ultra Light	40	55	48	78	107	93	120	134	120	99	95	103
Light & Medium Sour	414	467	477	535	611	719	841	911	1,093	1,167	1,237	1,281
TURKMENISTAN	87	88	108	136	138	152	172	192	187	183	162	176
Light & Sweet	9	4	7	8	12	16	20	19	17	15	11	13
Medium & Sweet	72	75	91	116	114	123	141	163	161	159	143	154
Heavy & Sweet	6	9	10	13	13	13	11	10	10	9	7	10
UZBEKISTAN	99	102	94	100	83	80	77	87	82	69	63	61
Light & Sweet	1	1	1	1	1	1	2	5	10	14	16	17
Light & Medium Sour	0	0	1	2	1	1	1	1	1	1	1	1
Light & Sour	92	95	86	92	75	71	66	71	62	47	38	37
Medium & Medium Sour	5	5	4	4	4	5	6	8	8	6	6	2
Medium & Sour	0	0	0	0	0	0	0	0	0	0	1	3
Heavy & Sour	0	0	1	1	1	1	1	1	1	1	1	1

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

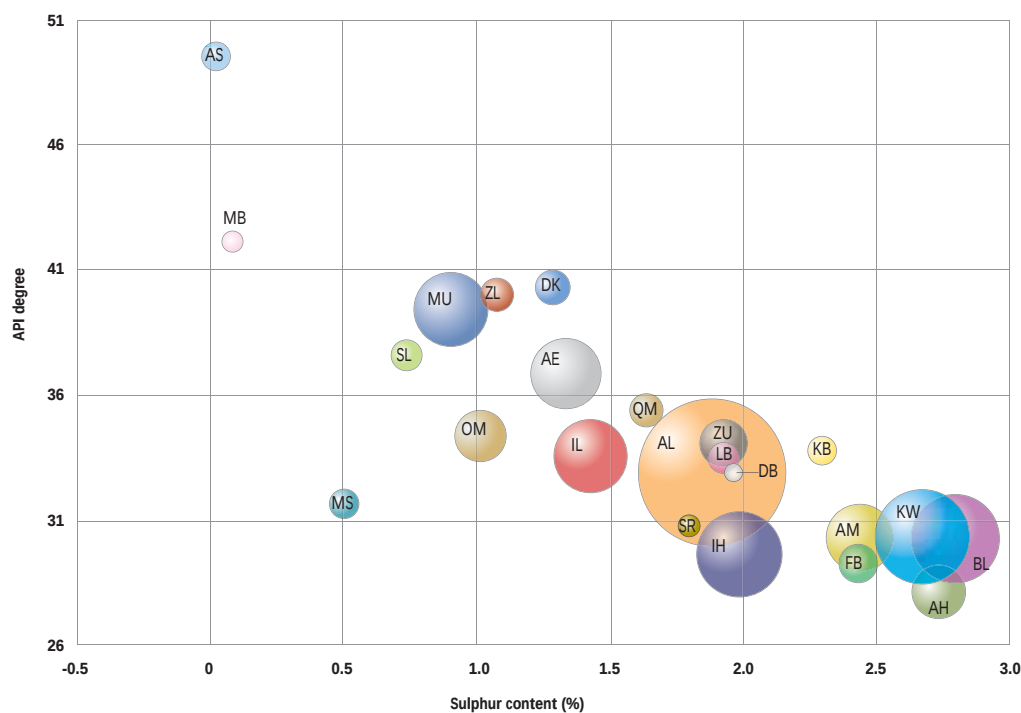
(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
MIDDLE EAST	19,228	20,180	21,242	20,539	21,689	21,077	19,730	21,251	22,441	22,804	22,980	22,539
Ultra Light	82	82	92	133	173	200	225	292	361	383	403	464
Light & Sweet	367	349	305	333	390	373	342	339	329	324	314	310
Light & Medium Sour	1,441	1,410	1,444	1,353	1,465	1,450	1,245	1,362	1,408	1,489	1,593	1,576
Light & Sour	1,847	2,134	2,366	2,206	2,378	2,270	2,152	2,192	2,252	2,290	2,365	2,268
Medium & Sweet												
Medium & Medium Sour	182	210	237	242	264	278	299	299	284	284	257	215
Medium & Sour	14,958	15,587	16,364	15,877	16,599	16,082	14,953	16,247	17,260	17,431	17,417	17,152
Heavy & Sweet												
Heavy & Medium Sour												
Heavy & Sour	349	406	432	393	420	425	514	520	549	602	628	554

Quality and production volume of main crudes

Qualità dei principali greggi e volumi prodotti

2007



● = 500 thousand barrels/day

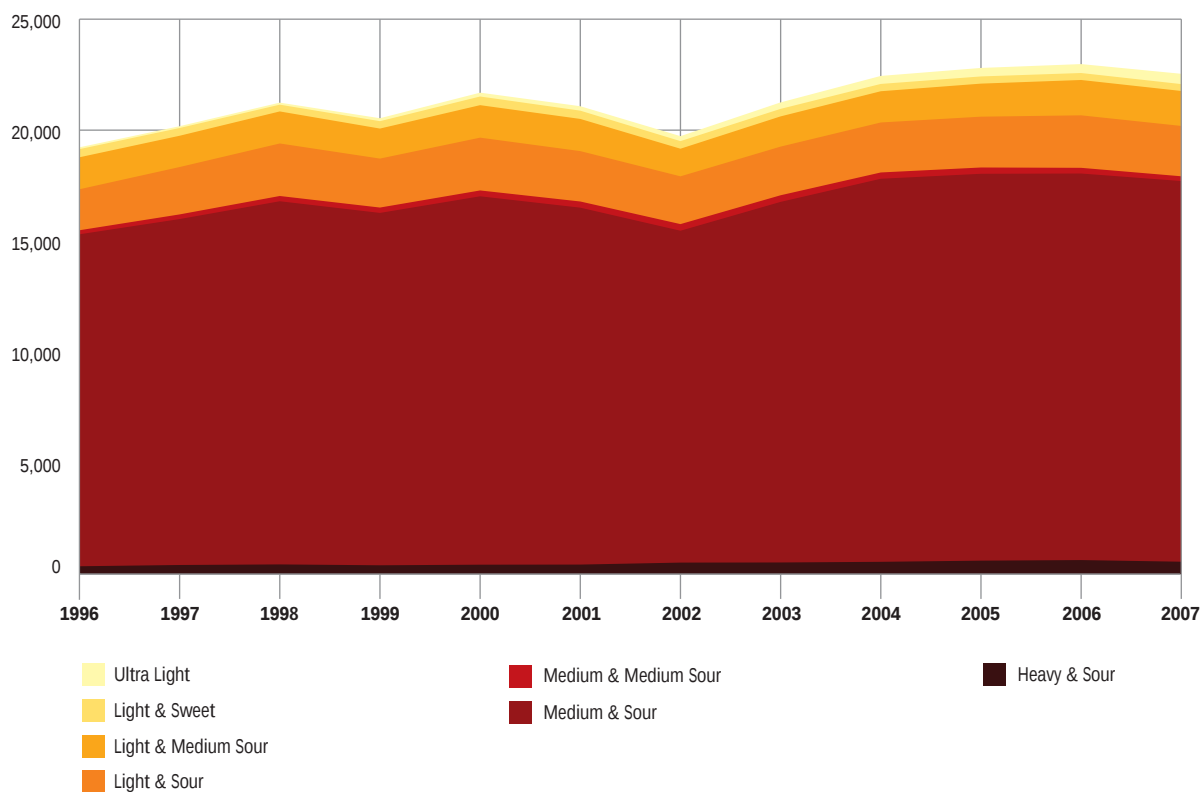
Middle East

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

(migliaia di barili/giorno)

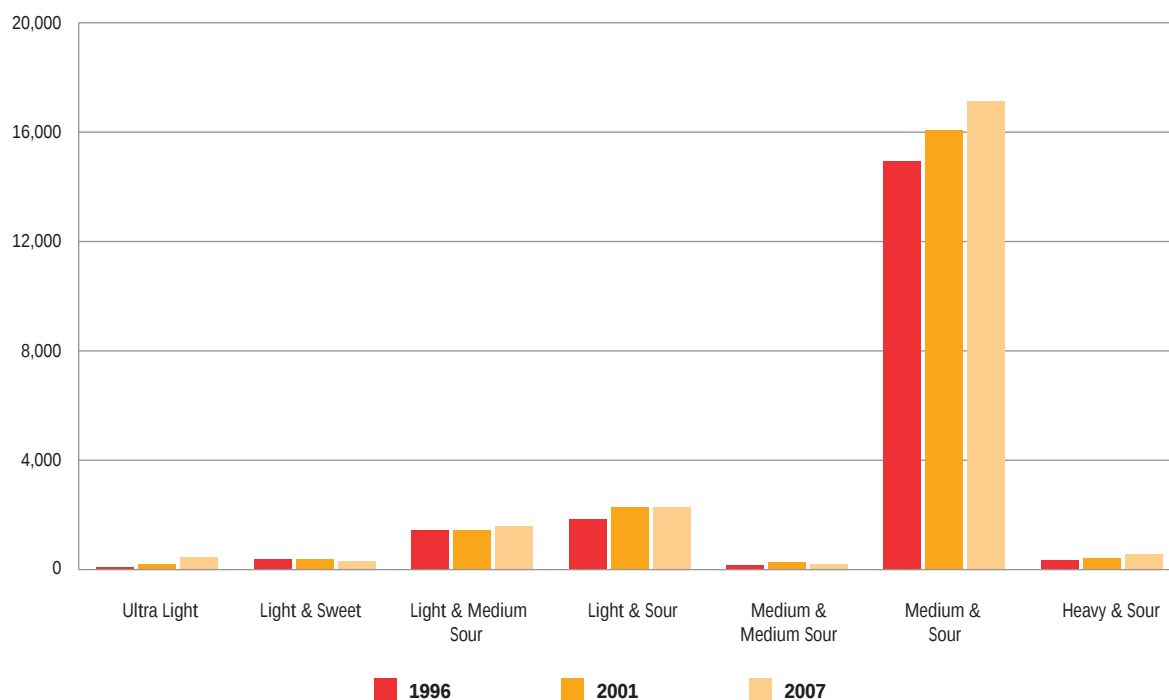


Crude production by quality

(selected years, thousand barrels/day)

Produzione di greggio per classi di qualità

(selezione anni, migliaia di barili/giorno)



Crude production by quality Countries

(thousand barrels/day)

Produzione di greggio per classi di qualità Paesi

(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
BAHRAIN	156	163	161	176	180	180	186	237	209	187	183	185
Medium & Sour	156	163	161	176	180	180	186	237	209	187	183	185
IRAN	3,668	3,599	3,630	3,497	3,685	3,695	3,395	3,782	3,930	3,879	3,909	3,969
Medium & Sour	3,668	3,599	3,630	3,497	3,685	3,688	3,344	3,721	3,870	3,754	3,748	3,794
Heavy & Sour						7	51	61	60	125	161	175
IRAQ	576	1,147	2,112	2,521	2,567	2,357	2,012	1,325	1,992	1,813	1,897	2,091
Medium & Sour	576	1,147	2,112	2,521	2,567	2,357	2,012	1,325	1,992	1,813	1,897	2,091
KUWAIT	1,807	1,836	1,811	1,653	1,765	1,718	1,601	1,870	2,046	2,133	2,210	2,163
Medium & Sour	1,807	1,836	1,811	1,653	1,765	1,718	1,601	1,870	2,046	2,133	2,210	2,163
NEUTRAL ZONE	483	533	559	518	561	565	538	604	597	580	578	557
Medium & Sour	284	277	277	270	281	277	257	325	309	299	304	298
Heavy & Sour	199	256	282	248	280	288	281	279	288	281	274	259
OMAN	887	903	899	887	889	882	827	759	733	718	686	646
Medium & Sour	887	903	899	887	889	882	827	759	733	718	686	646
QATAR	569	705	751	764	860	881	869	1,005	1,131	1,157	1,218	1,259
Ultra Light	82	82	92	133	173	200	225	292	361	383	403	464
Light & Sour	454	533	560	527	574	540	472	521	578	578	611	556
Medium & Sour	33	90	99	104	113	141	172	192	193	196	204	239
SAUDI ARABIA	7,908	8,084	8,092	7,520	7,997	7,698	7,380	8,475	8,598	9,063	8,928	8,478
Light & Sweet	201	180	155	166	200	200	192	196	200	198	198	199
Light & Sour	957	1,161	1,340	1,257	1,350	1,300	1,246	1,196	1,200	1,224	1,240	1,197
Medium & Sour	6,750	6,743	6,597	6,097	6,447	6,198	5,942	7,082	7,198	7,641	7,490	7,082
SYRIA	600	563	553	542	510	503	495	477	450	415	386	359
Light & Medium Sour	450	413	403	397	370	373	313	297	249	219	193	239
Heavy & Sour	150	150	150	145	140	130	182	180	201	196	193	120
UNITED ARAB EMIRATES	2,228	2,283	2,302	2,066	2,238	2,160	1,989	2,286	2,353	2,458	2,620	2,514
Light & Medium Sour	991	997	1,041	956	1,095	1,077	932	1,065	1,159	1,270	1,400	1,336
Light & Sour	436	440	466	421	454	431	434	475	475	487	514	516
Medium & Medium Sour	4	17	17	17	17	12	11	11	10	10	10	8
Medium & Sour	797	829	778	672	672	640	612	736	710	691	696	654
YEMEN	344	362	370	392	437	439	438	431	403	400	363	318
Light & Sweet	166	169	150	167	190	173	150	143	129	126	116	111
Medium & Medium Sour	178	193	220	225	247	266	288	288	274	274	247	207

Africa

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

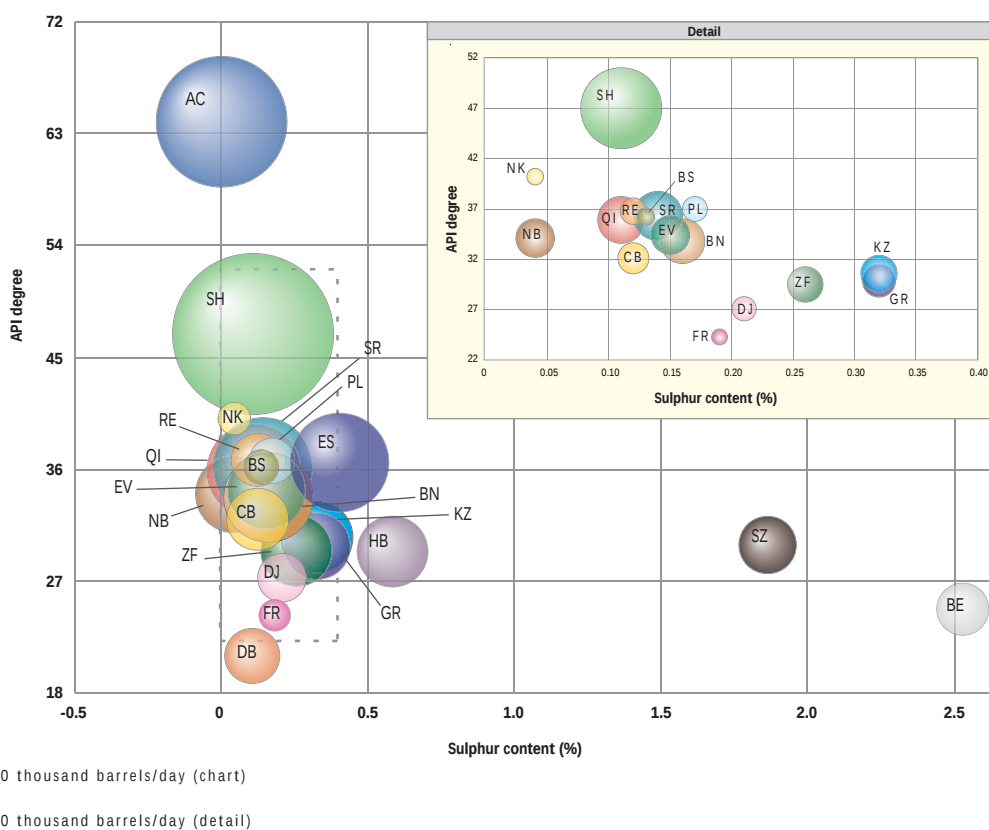
(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AFRICA (A)	7,448	7,691	7,604	7,332	7,549	7,575	7,638	8,248	9,119	9,727	9,863	10,081
Ultra Light	578	581	610	620	630	650	680	708	746	760	793	835
Light & Sweet	4,012	4,272	4,215	4,004	4,048	4,046	3,623	4,192	4,582	4,891	5,083	5,012
Light & Medium Sour												
Light & Sour	19	15	26	29	25	24	34	28	29	24	23	33
Medium & Sweet	1,844	1,874	1,794	1,771	1,916	1,994	2,440	2,448	2,720	2,822	2,747	2,820
Medium & Medium Sour	2	1	1	1	5	28	49	29	103	278	330	301
Medium & Sour	951	901	909	869	824	738	706	715	648	641	607	575
Heavy & Sweet	25	26	21	19	18	16	15	47	192	218	208	445
Heavy & Medium Sour				1	61	61	66	61	57	56	40	32
Heavy & Sour												
Unassigned production (B)	18	21	29	19	23	18	25	19	42	38	33	28
% Unassigned production (B/A)	0.2	0.3	0.4	0.3	0.3	0.2	0.3	0.2	0.5	0.4	0.3	0.3

Quality and production volume of main crudes

Qualità dei principali greggi e volumi prodotti

2007



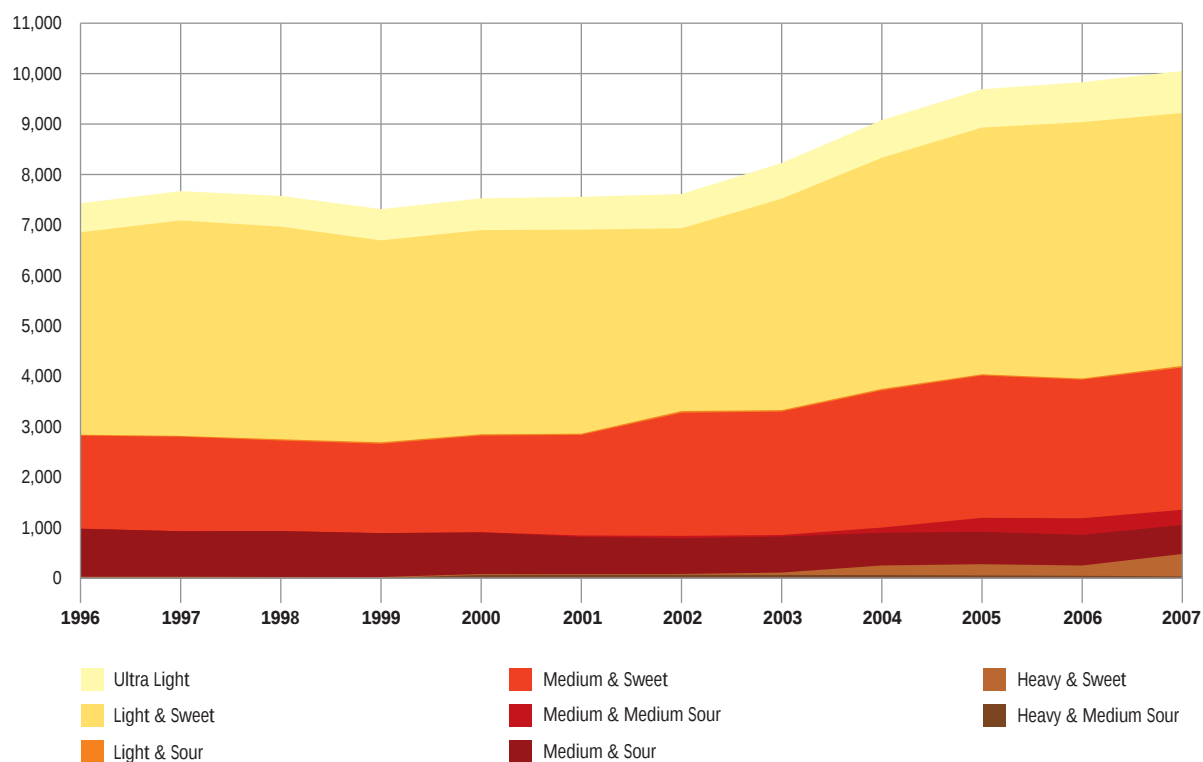
Africa

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

(migliaia di barili/giorno)

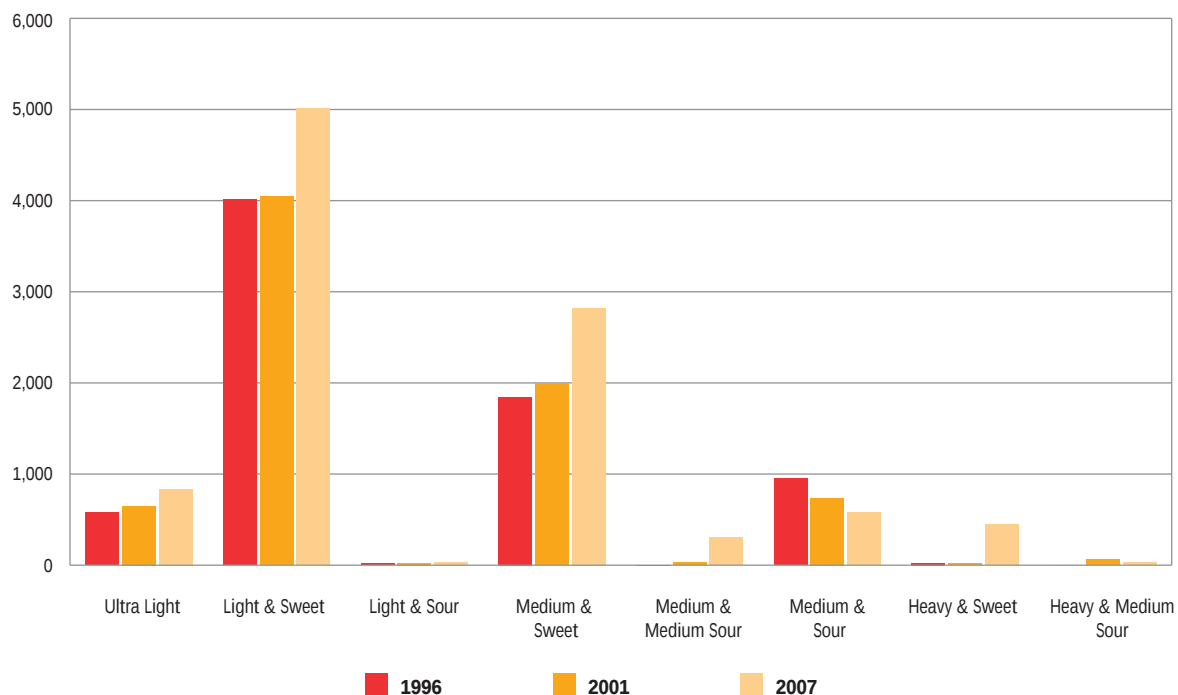


Crude production by quality

(selected years, thousand barrels/day)

Produzione di greggio per classi di qualità

(selezione anni, migliaia di barili/giorno)



Africa

Crude production by quality

Countries

(thousand barrels/day)

Produzione di greggio per classi di qualità

Paesi

(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ALGERIA	1,396	1,430	1,431	1,377	1,436	1,486	1,531	1,818	1,944	2,105	2,141	2,194
Ultra Light	578	581	610	620	630	650	680	708	746	760	793	835
Light & Sweet	818	849	821	757	806	836	851	1,110	1,198	1,345	1,348	1,359
ANGOLA	691	710	729	748	745	739	897	879	988	1,228	1,371	1,608
Light & Sweet	360	387	417	409	358	333	336	322	292	286	358	415
Medium & Sweet	331	323	312	338	326	345	494	496	574	651	714	705
Medium & Medium Sour									66	235	259	246
Heavy & Sweet												210
Heavy & Medium Sour				1	61	61	66	61	57	56	40	32
CAMEROON	118	124	102	91	85	78	72	67	89	82	87	82
Medium & Sweet	93	98	81	72	67	62	57	53	70	65	69	65
Heavy & Sweet	25	26	21	19	18	16	15	14	19	17	18	17
CHAD								33	173	180	156	149
Heavy & Sweet								33	173	180	156	149
CONGO	201	229	260	257	266	263	249	247	230	234	238	207
Light & Sweet	44	83	100	112	131	133	133	130	122	121	120	92
Medium & Sweet	157	146	160	145	135	130	116	117	108	113	118	115
CÔTE D'IVOIRE	16	14	10	10	7	6	15	21	26	41	93	108
Medium & Sweet	16	14	10	10	7	6	15	21	26	20	59	89
Heavy & Sweet										21	34	19
DEM. REP. CONGO	29	28	26	26	23	25	23	22	21	20	18	17
Medium & Sweet	29	28	26	26	23	25	23	22	21	20	18	17
EGYPT	856	826	820	789	724	642	628	619	595	579	533	478
Light & Sweet	108	126	131	134	123	116	113	111	142	138	127	106
Medium & Sour	748	700	689	655	601	526	515	508	453	441	406	372
EQUATORIAL GUINEA	22	52	83	96	114	177	204	242	345	373	358	363
Light & Sweet	9	9	9	9	9	14	20	23	47	68	78	80
Medium & Sweet	13	43	74	87	101	136	136	191	261	263	241	245
Medium & Medium Sour					4	27	48	28	37	43	40	38
GABON	365	370	351	331	302	275	248	242	235	234	235	233
Light & Sweet								116	138	137	138	137
Medium & Sweet	236	239	199	187	151	138	131					
Medium & Sour	129	131	152	144	151	138	117	126	97	97	97	96
LIBYA	1,393	1,421	1,473	1,378	1,411	1,365	1,316	1,423	1,546	1,640	1,709	1,708
Light & Sweet	1,338	1,368	1,423	1,324	1,353	1,305	1,255	1,354	1,460	1,548	1,615	1,610
Medium & Sour	55	53	50	54	58	60	61	69	86	92	94	98

Crude production by quality Countries

(thousand barrels/day)

Produzione di greggio per classi di qualità Paesi

(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
MAURITANIA											31	16
Medium & Medium Sour											31	16
NIGERIA	2,254	2,382	2,199	2,059	2,160	2,223	2,116	2,285	2,513	2,598	2,462	2,353
Light & Sweet	1,288	1,405	1,276	1,222	1,231	1,279	889	1,001	1,154	1,213	1,265	1,176
Medium & Sweet	966	977	923	837	929	944	1,227	1,284	1,359	1,385	1,197	1,127
Heavy & Sweet												50
SUDAN	2	5	10	69	177	208	241	265	301	305	331	457
Medium & Sweet	2	5	10	69	177	208	241	265	301	305	331	457
TUNISIA	87	79	81	82	76	70	73	66	70	70	67	80
Light & Sweet	48	45	37	36	36	32	25	25	30	35	35	38
Light & Sour	19	15	26	29	25	24	34	28	29	24	23	33
Medium & Medium Sour	2	1	1	1	1	1	1	1	1	1	0	1
Medium & Sour	19	18	18	17	14	14	13	13	11	11	9	8

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

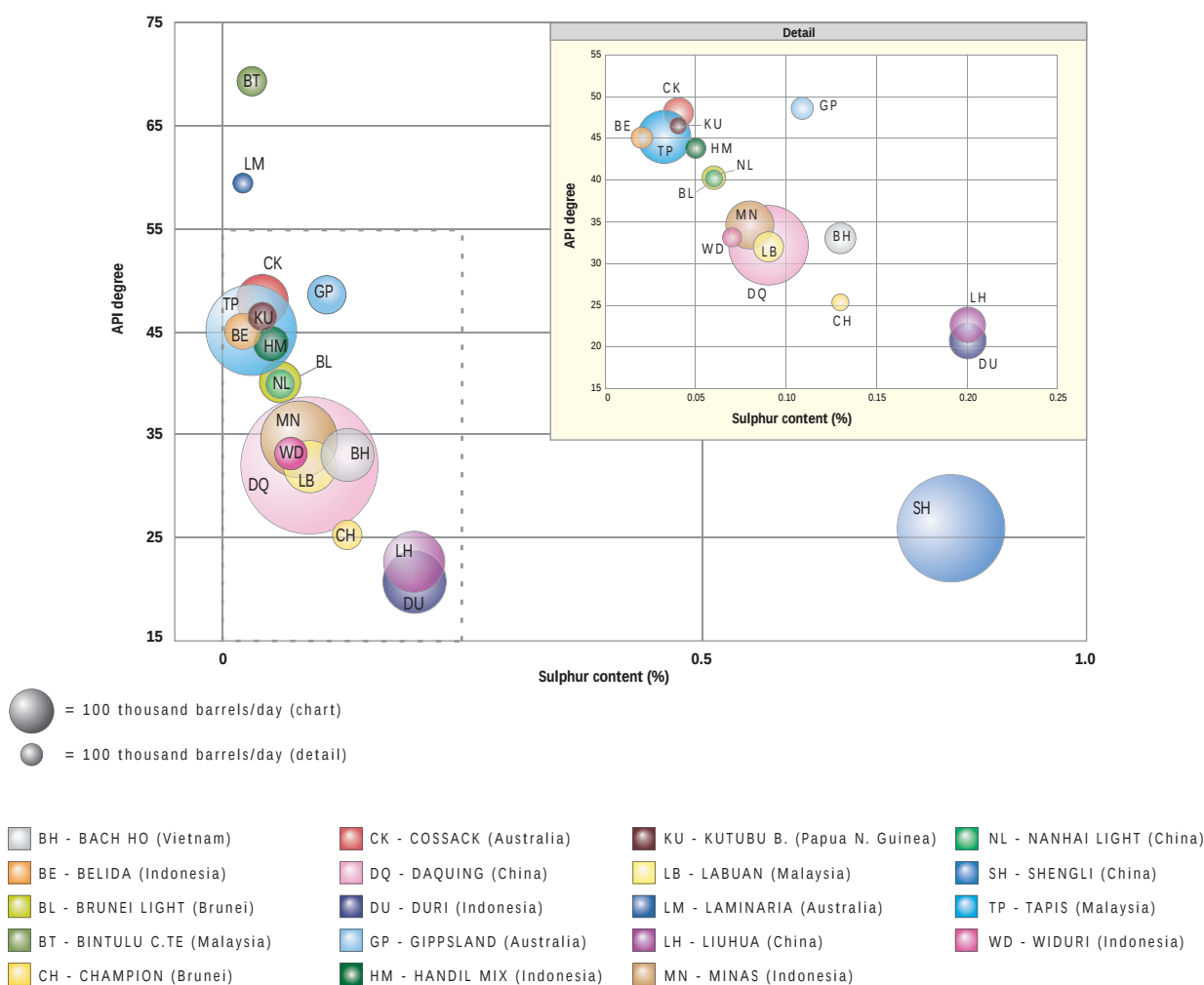
(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ASIA AND THE PACIFIC (A)	7,195	7,256	7,212	7,161	7,324	7,349	7,401	7,248	7,335	7,372	7,419	7,403
Ultra Light	314	343	354	340	435	372	267	173	187	232	248	233
Light & Sweet	2,713	2,675	2,559	2,597	2,718	2,706	2,622	2,583	2,592	2,642	2,666	2,690
Light & Medium Sour	21	23	25	29	31	31	32	32	32	33	34	34
Light & Sour												
Medium & Sweet	2,748	2,807	2,846	2,857	2,786	2,811	2,837	2,853	2,939	2,896	2,875	2,833
Medium & Medium Sour	592	572	560	546	543	546	547	547	553	563	582	596
Medium & Sour	17	16	15	17	17	19	19	19	19	19	19	19
Heavy & Sweet	704	740	773	695	708	763	957	918	884	858	873	880
Heavy & Medium Sour												
Heavy & Sour												
Unassigned production (B)	86	81	80	81	87	101	120	124	128	129	122	118
% Unassigned production (B/A)	1.2	1.1	1.1	1.1	1.2	1.4	1.6	1.7	1.7	1.7	1.6	1.6

Quality and production volume of main crudes

Qualità dei principali greggi e volumi prodotti

2007

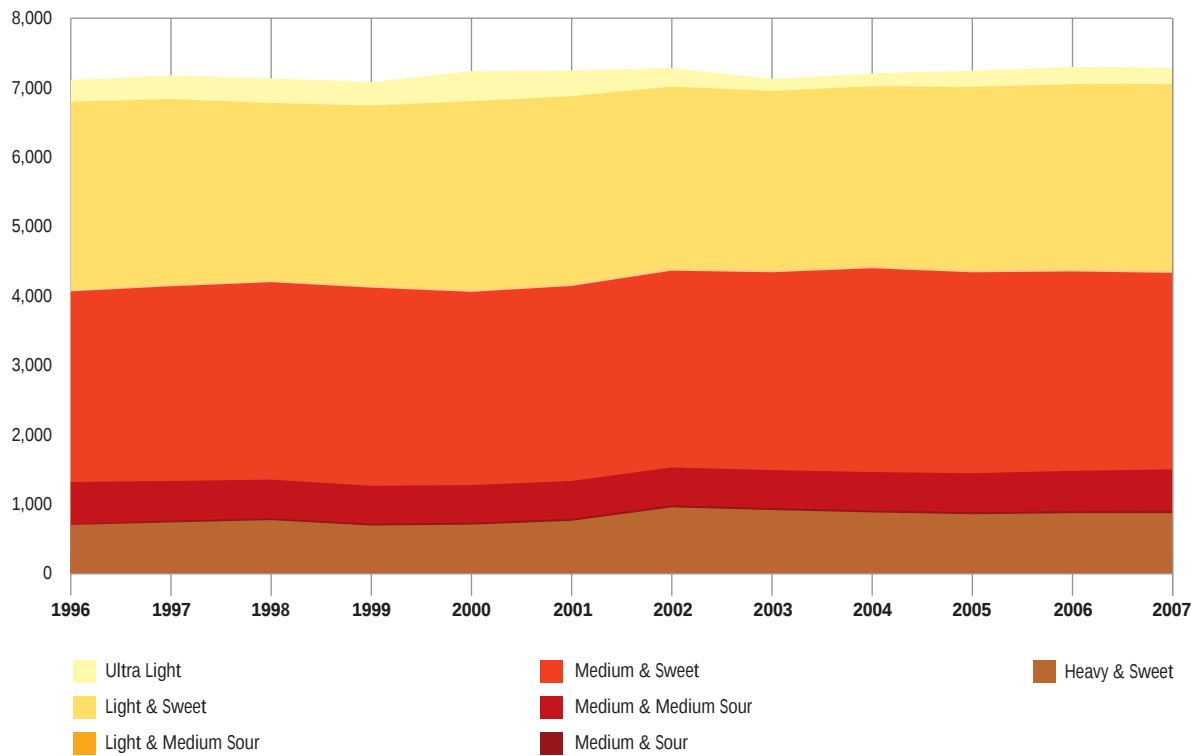


Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

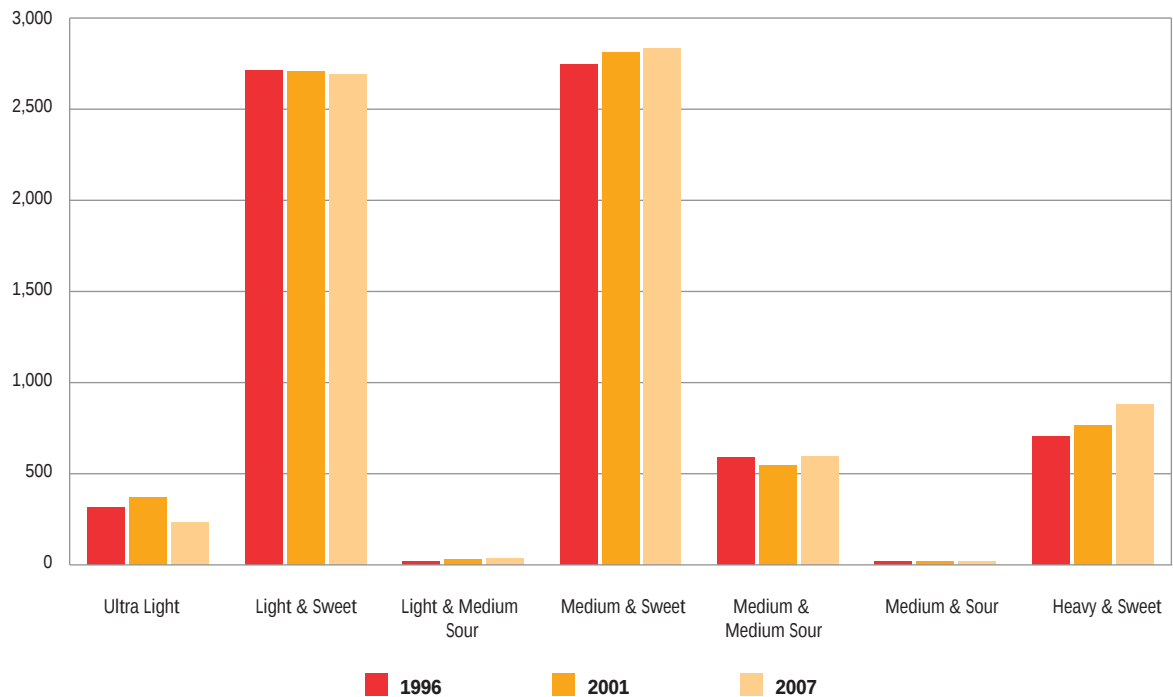
(migliaia di barili/giorno)

**Crude production by quality**

(selected years, thousand barrels/day)

Produzione di greggio per classi di qualità

(selezione anni, migliaia di barili/giorno)



Asia and the Pacific

Crude production by quality
Countries

(thousand barrels/day)

Produzione di greggio per classi di qualità
Paesi

(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AUSTRALIA	535	570	546	535	721	657	629	521	449	452	437	464
Ultra Light	169	170	183	181	293	251	117	69	46	37	33	28
Light & Sweet	355	370	324	322	390	369	424	383	355	373	359	362
Heavy & Sweet	11	30	39	32	38	37	88	69	48	42	45	74
BRUNEI	172	171	165	189	201	210	209	213	210	202	220	180
Ultra Light	20	22	22	22	22	22	26	26	26	22	22	16
Light & Sweet	60	67	58	98	110	119	114	120	119	115	117	101
Medium & Sweet	9	8	4	5	6	7	6	4	3	3		
Heavy & Sweet	83	74	81	64	63	62	63	63	62	62	81	63
CHINA	3,116	3,189	3,193	3,186	3,229	3,297	3,390	3,410	3,485	3,617	3,674	3,729
Light & Sweet	152	165	164	188	200	192	194	196	198	238	254	285
Light & Medium Sour	21	23	25	29	31	31	32	32	32	33	34	34
Medium & Sweet	2,135	2,188	2,186	2,185	2,171	2,188	2,181	2,189	2,276	2,309	2,321	2,322
Medium & Medium Sour	592	572	560	546	543	546	547	547	553	563	582	596
Medium & Sour	17	16	15	17	17	19	19	19	19	19	19	19
Heavy & Sweet	199	225	243	221	267	321	417	427	407	455	464	473
EST TIMOR									46	92	104	95
Ultra Light									46	92	104	95
INDIA	670	686	671	662	659	654	674	680	691	656	687	700
Light & Sweet	571	582	564	558	552	548	575	587	595	562	596	608
Medium & Sweet	41	42	42	37	40	39	38	33	32	27	27	28
Heavy & Sweet	58	62	65	67	67	67	61	60	64	67	64	64
INDONESIA	1,472	1,435	1,379	1,310	1,225	1,227	1,139	1,020	975	948	897	841
Ultra Light	80	100	95	91	74	58	77	53	53	56	54	49
Light & Sweet	821	787	760	727	766	777	596	543	511	555	525	493
Medium & Sweet	218	199	179	182	113	115	138	125	108	104	98	92
Heavy & Sweet	353	349	345	310	272	276	328	299	303	232	220	206
MALAYSIA	761	765	779	737	727	707	745	763	778	728	735	740
Ultra Light	45	51	54	46	46	41	47	25	16	25	35	45
Light & Sweet	543	524	514	478	458	448	472	499	493	454	453	449
Medium & Sweet	173	190	211	213	223	218	226	239	269	249	247	246
NEW ZEALAND	43	58	46	42	36	33	31	23	20	19	18	42
Light & Sweet	43	58	46	42	36	33	31	23	20	19	18	42
PAPUA NEW GUINEA	106	80	79	88	64	60	48	49	42	45	47	47
Light & Sweet	106	80	79	88	64	60	48	49	42	45	47	47
THAILAND	62	27	29	34	58	62	76	96	86	114	129	134
Light & Sweet	62	27	29	34	58	62	76	96	86	114	129	134
VIETNAM	172	194	245	297	317	341	340	349	425	370	349	313
Light & Sweet		14	21	63	84	97	92	87	174	166	168	168
Medium & Sweet	172	180	224	234	233	244	248	262	251	204	181	145

Americas

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

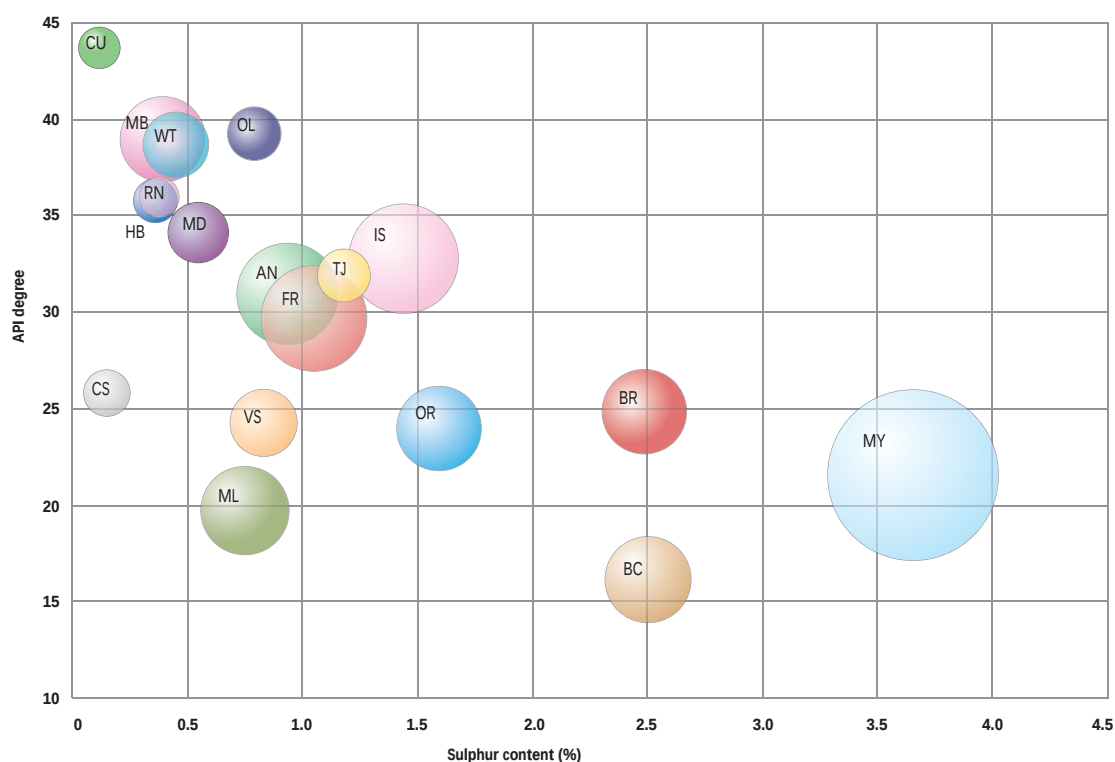
(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
AMERICAS (A)	17,003	17,643	17,762	16,910	17,114	17,232	17,237	17,304	17,376	17,287	17,210	16,933
Ultra Light												
Light & Sweet	1,054	1,207	1,346	1,375	1,295	1,230	1,150	1,102	1,039	976	933	853
Light & Medium Sour	578	574	563	536	505	471	157	135	135	144	180	283
Light & Sour												
Medium & Sweet	489	464	467	447	415	401	616	712	778	713	836	958
Medium & Medium Sour	902	1,392	1,179	1,104	1,109	1,050	595	646	613	567	548	1,318
Medium & Sour	2,730	2,722	2,429	2,213	2,068	1,977	2,703	2,556	2,536	2,545	2,397	1,653
Heavy & Sweet	502	219	330	316	307	312	302	316	301	287	285	291
Heavy & Medium Sour	941	883	981	1,085	1,191	1,283	1,454	1,422	1,435	1,658	1,722	1,620
Heavy & Sour	4,406	4,697	5,039	4,666	5,074	5,330	5,141	5,338	5,675	5,724	5,585	5,236
Unassigned production (B)	5,402	5,484	5,428	5,167	5,151	5,178	5,120	5,077	4,863	4,673	4,724	4,721
- of which US Lower 48	5,065	5,153	5,080	4,827	4,816	4,844	4,750	4,706	4,515	4,313	4,361	4,377
- other	337	331	348	340	335	334	370	371	348	360	363	344
% Unassigned production (B/A)	31.8	31.1	30.6	30.6	30.1	30.0	29.7	29.3	28.0	27.0	27.4	27.9

Quality and production volume of main crudes

Qualità dei principali greggi e volumi prodotti

2007



AN - ALASKAN NTH. SL. (U.S.A.)	FR - FURRIAL (Venezuela)	MD - MEDANITO (Argentina)	RN - RINCON (Argentina)
BC - BCF 17 (Venezuela)	HB - HIBERNIA (Canada)	MB - MIXED BLEND S. (Canada)	TJ - TIA JUANA LIGHT (Venezuela)
BR - BOW RIVER (Canada)	IS - ISTHMUS (Mexico)	OL - OLMECA (Mexico)	VS - VASCONIA (Colombia)
CS - CANADON SECO (Argentina)	ML - MARLIM (Brasile)	OR - ORIENTE (Ecuador)	WT - WEST TEXAS INT. (U.S.A.)
CU - CUSIANA (Colombia)	MY - MAYA (Mexico)		

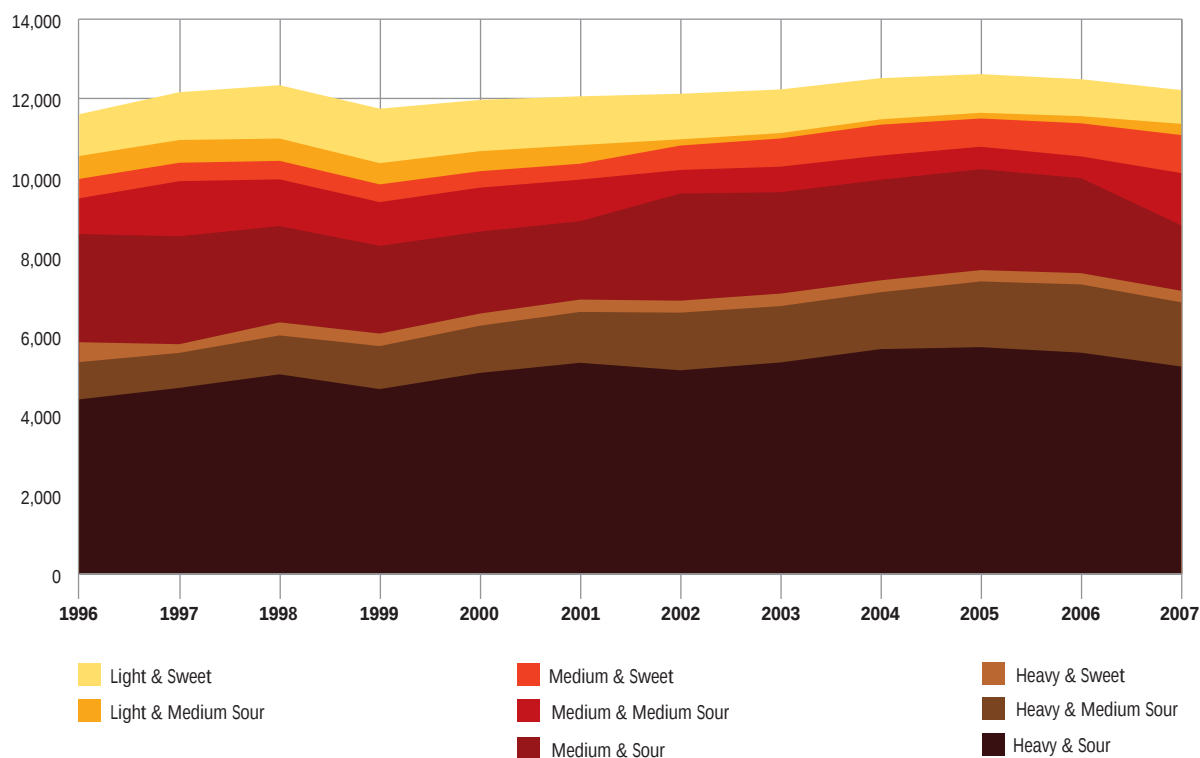
Americas

Crude production by quality

(thousand barrels/day)

Produzione di greggio per classi di qualità

(migliaia di barili/giorno)

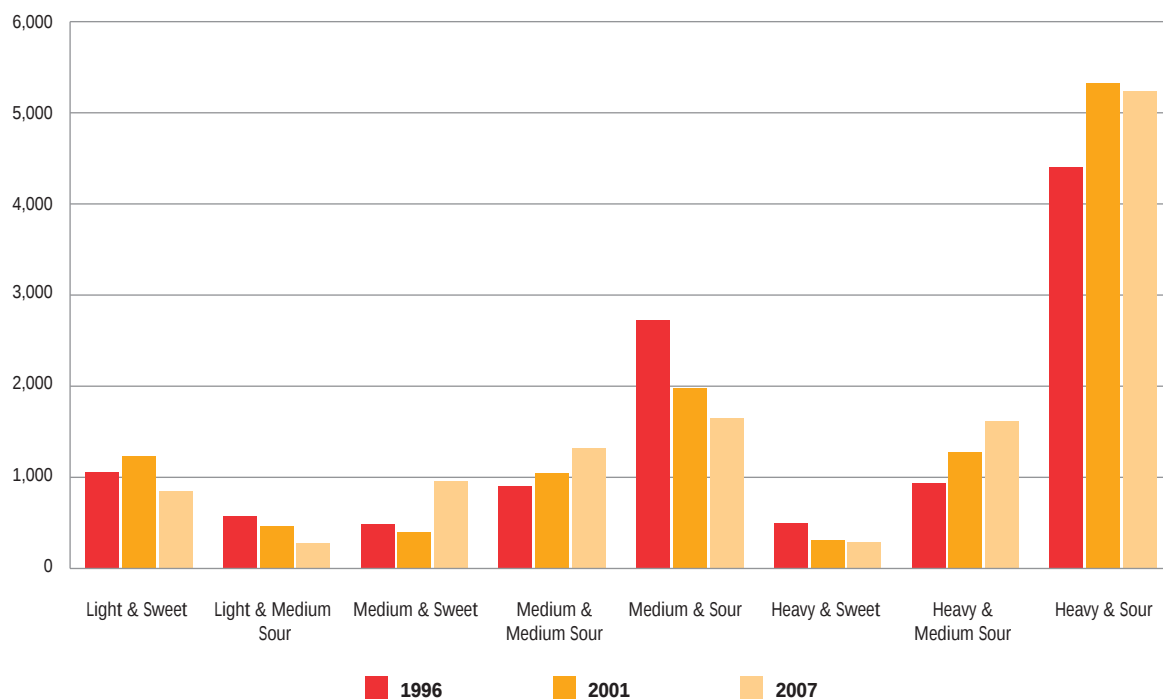


Crude production by quality

(selected years, thousand barrels/day)

Produzione di greggio per classi di qualità

(selezione anni, migliaia di barili/giorno)



Americas

Crude production by quality

Countries

(thousand barrels/day)

Produzione di greggio per classi di qualità

Paesi

(migliaia di barili/giorno)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
ALASKA	1,394	1,296	1,175	1,050	970	978	985	975	913	867	741	726
Medium & Medium Sour												726
Medium & Sour	1,394	1,296	1,175	1,050	970	978	985	975	913	867	741	
ARGENTINA	782	836	847	801	766	779	754	743	698	665	659	643
Light & Sweet	15	148	132	127	123	125	121	124	122	116	115	112
Medium & Medium Sour	265	469	385	358	336	342	331	302	275	262	260	253
Heavy & Sweet	502	219	330	316	307	312	302	316	301	287	285	278
BRAZIL	784	844	972	1,102	1,231	1,293	1,454	1,496	1,477	1,634	1,722	1,742
Light & Medium Sour												84
Medium & Medium Sour	104	231	261	278	295	262	264	344	338	305	289	339
Heavy & Sweet												13
Heavy & Medium Sour	680	613	711	824	937	1,031	1,190	1,152	1,139	1,329	1,433	1,306
CANADA	1,838	1,938	2,017	1,912	2,002	2,036	2,187	2,322	2,398	2,351	2,484	2,594
Light & Sweet	865	838	869	813	832	806	786	775	752	725	699	647
Medium & Sweet	297	303	324	329	322	348	545	644	711	651	777	899
Heavy & Sour	676	797	824	770	848	882	856	903	935	975	1,008	1,048
Memo: Syncrude production is included in Medium & Sweet	279	290	308	323	322	348	440	510	601	545	652	666
Memo: bitumen production is included in Heavy & Sour	163	237	282	244	288	309	301	356	394	448	494	550
COLOMBIA	627	652	758	814	687	604	578	541	528	526	527	529
Light & Sweet	174	221	345	435	340	299	243	203	165	135	119	94
Medium & Sweet	192	161	143	118	93	53	71	68	67	62	59	59
Heavy & Medium Sour	261	270	270	261	254	252	264	270	296	329	289	314
Heavy & Sour											60	62
ECUADOR	380	388	375	373	401	430	392	421	526	532	536	502
Heavy & Sour	380	388	375	373	401	430	392	421	526	532	536	502
MEXICO	2,858	3,022	3,071	2,906	3,012	3,127	3,177	3,371	3,383	3,333	3,255	3,082
Light & Medium Sour	578	574	563	536	505	471	157	135	135	144	180	199
Medium & Sour	910	882	849	806	733	659	847	811	790	802	831	838
Heavy & Sour	1,371	1,567	1,659	1,564	1,774	1,997	2,174	2,425	2,458	2,387	2,244	2,045
VENEZUELA	2,938	3,182	3,119	2,785	2,894	2,807	2,590	2,358	2,590	2,706	2,562	2,394
Medium & Medium Sour	533	693	533	468	479	446						
Medium & Sour	426	545	406	357	365	340	871	770	834	876	825	815
Heavy & Sour	1,979	1,945	2,181	1,960	2,051	2,021	1,719	1,588	1,756	1,830	1,737	1,579

Notes and methods

- The sources of the data are: Arab Oil & Gas Directory, Eni, International Energy Agency, IHS Energy, Oil & Gas Journal, PIW and other official sources.
- Measurement unit used is: thousand barrels per day.
- Blank spaces in the tables indicate that the figure was not available, zero indicates a figure that is not significant.
- Total may differ from the sum of the individual figures as a result of rounding up/down.
- In “Production quality” figures for total oil production in each area or country do not coincide with the figures in the “Production” chapter of the World Oil and Gas Review. This is due to the exclusion of natural gas liquids and extra heavy crude from the figures for the first (except for Venezuela). Moreover, it has not been possible to allocate or define total production. In some countries the “Ultra Light” category also includes, in total or in part, the production of condensates. For Canada the production includes syncrude.
- For the definition of the qualitative parameters for single crudes, the data of “Eni R&M Division Research Center – Downstream technologies” have been used, wherever possible. Quality levels, indicating API gravity and sulphur content, are defined as follows.

Ultra Light	API level equal to or greater than 50° and a low sulphur content
Light & Sweet	API level equal to or greater than 35° and less than 50°; sulphur content less than 0.5%
Light & Medium Sour	API level equal to or greater than 35° and less than 50°; sulphur content equal to or greater than 0.5% and less than 1%
Light & Sour	API level equal to or greater than 35° and less than 50°; sulphur content equal to or greater than 1%
Medium & Sweet	API level equal to or greater than 26° and less than 35°; sulphur content less than 0.5%
Medium & Medium Sour	API level equal to or greater than 26° and less than 35°; sulphur content equal to or greater than 0.5% and less than 1%
Medium & Sour	API level equal to or greater than 26° and less than 35°; sulphur content equal to or greater than 1%
Heavy & Sweet	API level equal to or greater than 10° and less than 26°; sulphur content less than 0.5%
Heavy & Medium Sour	API level equal to or greater than 10° and less than 26°; sulphur content equal to or greater than 0.5% and less than 1%
Heavy & Sour	API level equal to or greater than 10° and less than 26°; sulphur content equal to or greater than 1%

Riferimenti e metodologie

- I dati sono di fonte: Arab Oil & Gas Directory, Eni, International Energy Agency, IHS Energy, Oil & Gas Journal, PIW e altre fonti ufficiali.
- L'unità di misura adottata è: migliaia di barili/giorno.
- All'interno delle tabelle lo spazio vuoto indica un valore non rilevato, lo zero un dato non significativo.
- I totali possono differire dalla somma dei singoli numeri a causa degli arrotondamenti.
- Nella "Qualità della produzione" il totale della produzione petrolifera di ciascuna area o paese non coincide con le statistiche del capitolo "Produzione" della World Oil and Gas Review. Ciò perché dalle statistiche del primo sono esclusi i liquidi di gas naturale e i greggi extra pesanti (eccetto che per il Venezuela). Inoltre non è possibile allocare o censire tutta la produzione. In alcuni paesi la categoria "Ultra Light" comprende anche, in tutto o in parte, la produzione di condensati. Per il Canada il totale dalla produzione comprende anche il syncrude.
- Per la definizione dei parametri qualitativi dei singoli greggi sono utilizzati, laddove possibile, i dati del "Centro ricerche Eni Divisione R&M – Tecnologie di prodotto downstream". Di seguito si riporta il grado API e il contenuto percentuale di zolfo usati per la definizione delle classi di qualità.

Ultra Light	Grado API uguale o maggiore di 50° e con bassissimo tenore di zolfo
Light & Sweet	Grado API uguale o maggiore di 35° e minore di 50°; tenore di zolfo minore di 0,5%
Light & Medium Sour	Grado API uguale o maggiore di 35° e minore di 50°; tenore di zolfo uguale o maggiore di 0,5% e minore di 1%
Light & Sour	Grado API uguale o maggiore di 35° e minore di 50°; tenore di zolfo uguale o maggiore di 1%
Medium & Sweet	Grado API uguale o maggiore di 26° e minore di 35°; tenore di zolfo minore di 0,5%
Medium & Medium Sour	Grado API uguale o maggiore di 26° e minore di 35°; tenore di zolfo uguale o maggiore di 0,5% e minore di 1%
Medium & Sour	Grado API uguale o maggiore di 26° e minore di 35°; tenore di zolfo uguale o maggiore di 1%
Heavy & Sweet	Grado API uguale o maggiore di 10° e minore di 26°; tenore di zolfo minore di 0,5%
Heavy & Medium Sour	Grado API uguale o maggiore di 10° e minore di 26°; tenore di zolfo uguale o maggiore di 0,5% e minore di 1%
Heavy & Sour	Grado API uguale o maggiore di 10° e minore di 26°; tenore di zolfo uguale o maggiore di 1%



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